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College

Miami Dade College



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EQUAL ACCESS/EQUAL OPPORTUNITY

Miami Dade College is committed to providing equal access to education and employment opportunities for students, employees, applicants for admission and employment, and in its activities for the general community. We are an equal access/equal opportunity institution which does not discriminate on the basis of sex, race, color, marital status, age, religion, national origin, disability, veteran's status, ethnicity, pregnancy, sexual orientation, or genetic information. The College's commitment to equal access and equal opportunity is contained in the District Board of Trustees policies and procedures based on the nondiscrimination provisions of federal and state laws and regulations, including the Civil Rights Acts of 1964, as amended; Title IX of the Education Amendments of 1972; Section 504 of the Rehabilitation Act of 1973; the Americans with Disabilities Act Amendments Act of 2008; the Florida Educational Equity Act (§ 1000.05, F.S.); The Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act (The Clery Act) as amended in 2008; and The Violence Against Women Act.

In accordance with these protections, Miami Dade College provides equal access/equal opportunity in admissions, recruitment, financial assistance, access to course offerings, participation in extracurricular programs and activities, access to and use of facilities, counseling, housing referral, guidance, advising, health services, athletics, employment and retention of personnel and students.

Responsibility for the implementation of the College's commitment to equal access and equal opportunity rests with the College president.

Consult the offices below for assistance or to obtain detailed information on equal access/equal opportunity:

District Administration
Cindy Lau Evans, Director,
Equal Opportunity Programs/ ADA Coordinator/ Title IX Coordinator
Miami Dade College
11011 SW 104th St., Room 1102-01
Miami, FL 33176
Phone: (305} 237-2577 (Voice) or 711 (Relay Service);
EquityOff@mdc.edu

North Campus
Office of the Campus President
11380 N.W. 27th Ave.
Miami, FL 33167-3495

Kendall Campus
Office of the Campus President
11011 S.W. 104th St.
Miami, FL 33176-3393

Wolfson Campus
Office of the Campus President
300 N.E. Second Ave.
Miami, FL 33132-2296

Medical Campus
Office of the Campus President
950 N.W. 20th St.
Miami, FL 33127-4693

Homestead Campus
Office of the Campus President
500 College Terrace
Homestead, FL 33030-6009

Padrón Campus
Office of the Campus President
627 S.W. 27th Ave.
Miami, FL 33135

Hialeah Campus
Office of the Campus President
1780 W. 49th St.
Hialeah, FL33012-2918

West Campus
Office of the Campus President
3800 N.W. 115th Ave.
Doral, FL 33178-4856

To obtain additional information about the College, including an Application for Admission/Readmission, contact any campus Admissions and Registration Office or visit the College's website at www.mdc.edu.

Non-Discrimination Statement
Miami Dade College is an equal access/equal opportunity institution which does not discriminate on the basis of sex, race, color, marital status, age, religion, national origin, disability, veteran's status, ethnicity, pregnancy, sexual orientation or genetic information. To obtain more information about the College's equal access and equal opportunity policies, procedures and practices, please contact the College's Equity Officer:
Cindy Lau Evans
Director, Equal Opportunity Programs/ ADA Coordinator/ Title IX Coordinator (305} 237-2577 (Voice) or 711 (Relay Service)
11011 SW 104th St Room, 1102-01
Miami, FL 33176
EquityOff@mdc.edu

Purpose of the Catalog

This Catalog provides information about Miami Dade College's academic programs and student support services. The Catalog contains summaries of College policies for academic areas, degree and certificate requirements, descriptions of support services and course listings. Because the Catalog is produced for a two-year period, it does not necessarily contain all of the current policies and requirements. Prospective students and current students may verify these policies and requirements with an academic advisor.

Faculty and academic advisors provide academic advisement; however, students are responsible for fulfilling graduation requirements. The certificate or degree will be awarded only if all requirements have been met. It is important that students know the policies, requirements and procedures that they are expected to follow during their college career.

Accreditations

Miami Dade College is accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) to award associate and baccalaureate degrees. Miami Dade College also may offer credentials such as certificates and diplomas at approved degree levels. Questions about the accreditation of Miami Dade College may be directed in writing to the Southern Association of Colleges and Schools Commission on Colleges at 1866 Southern Lane, Decatur, GA 30033-4097, by calling (404) 679-4500, or by using information available on SACSCOC's website (www.sacscoc.org).

Additional accreditations include:

Accreditation Commission for Education in Nursing (ACEN)
Accreditation Review Commission on Education for the Physician Assistant (ARC-PA)
Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA)
American Bar Association (ABA), Standing Committee on Paralegals
American Board of Funeral Service Education, Committee on Accreditation (ABFSE)
American Dental Association , Commission on Dental Accreditation (CODA)
American Veterinary Medical Association, Committee on Veterinary Technician Education and Activities (CVTEA)
Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM)
Commission on Accreditation for Respiratory Care (CoARC)
Commission on Accreditation in Physical Therapy Education (CAPTE)
Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP)
Commission on Collegiate Nursing Education (CCNE)
Commission on Opticianry Accreditation (COA)
Federal Aviation Administration (FAA)
Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS)
Joint Review Committee on Education in Radiologic Technology (JRCERT)
Joint Review Committee on Educational Programs in Nuclear Medicine Technology (JRCNMT)
National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)
National Association for the Education of Young Children (NAEYC)
Society for Simulation in Healthcare (SSH)

Additional approvals include:

Commission on Accreditation of Allied Health Education Programs (CAAHEP)
Florida Board of Nursing
Florida Department of Health, Bureau of Emergency Medical Services
Florida Department of Law Enforcement, Criminal Justice Standards and Training Commission (CJSTC)
Florida Real Estate Commission, Department of Business and Professional Regulation - Division of Real Estate

Professional Organizations and Association Memberships

American Association of Collegiate Registrars and Admissions Officers (AACRAO)
American Association of Community Colleges (AACC)
American Associatin of Hispanics in Higher Education, Inc. (ACCHHE)
American Association of State Colleges and Universities (AASCU)
American Council on Education (ACE)
Association of American Colleges and Universities (AAC&U)
Association of Community College Trustees (ACCT)
Association of Florida Colleges (AFC)
Association of Governing Boards of Universities and Colleges (AGB)
Business-Higher Education Forum (BHEF)
College Consortium for International Studies (CCIS)
Council for Higher Education Accreditation (CHEA)
Council of Foreign Relations (CFR)
EDUCAUSE -Association of Managing and Using Information Technology in Higher Education
Florida Association of College Test Administrators (FACTA)
Florida Association of Colleges and Universities (FACU)
Florida Campus Compact
Florida College System Activities Association (FCSAA)

Florida Consortium for International Education (FCIE)
Fulbright Association
Global Community College Leadership Network
Greater Miami Chamber of Commerce (GMCC)
Hispanic Association of Colleges & Universities (HACU)
National Association for Community College Entrepreneurship (NACCE)
National Association of College and University Attorneys (NACUA)
National Association of College and University Business Officers (NACUBO)
National Association of Cuban American Educators (NACAE)
National Association of Student Financial Aid Administrators (NASFAA)
National College Testing Association (NCTA)
National Collegiate Honors Council (NCHC)
National Community College Hispanic Council (NCCHC)
National Institute for Staff and Organizational Development (NISOD)
South Florida Manufactures Association (SFMA)
Southern Association of Colleges and Schools Commission on Colleges (SACSCOC)
Southern Association of Collegiate Registrars and Admissions Officers (SACRAO)
The College Board

Requests for review of letters of accreditation may be forwarded to the Office of the Vice Provost for Academic Affairs or Associate Provost for Academic Affairs.

Note: In addition to the above, Miami Dade College administrators, faculty and staff members participate in numerous other international, national, state and regional organizations. Additional information regarding professional associations may be obtained from the College.

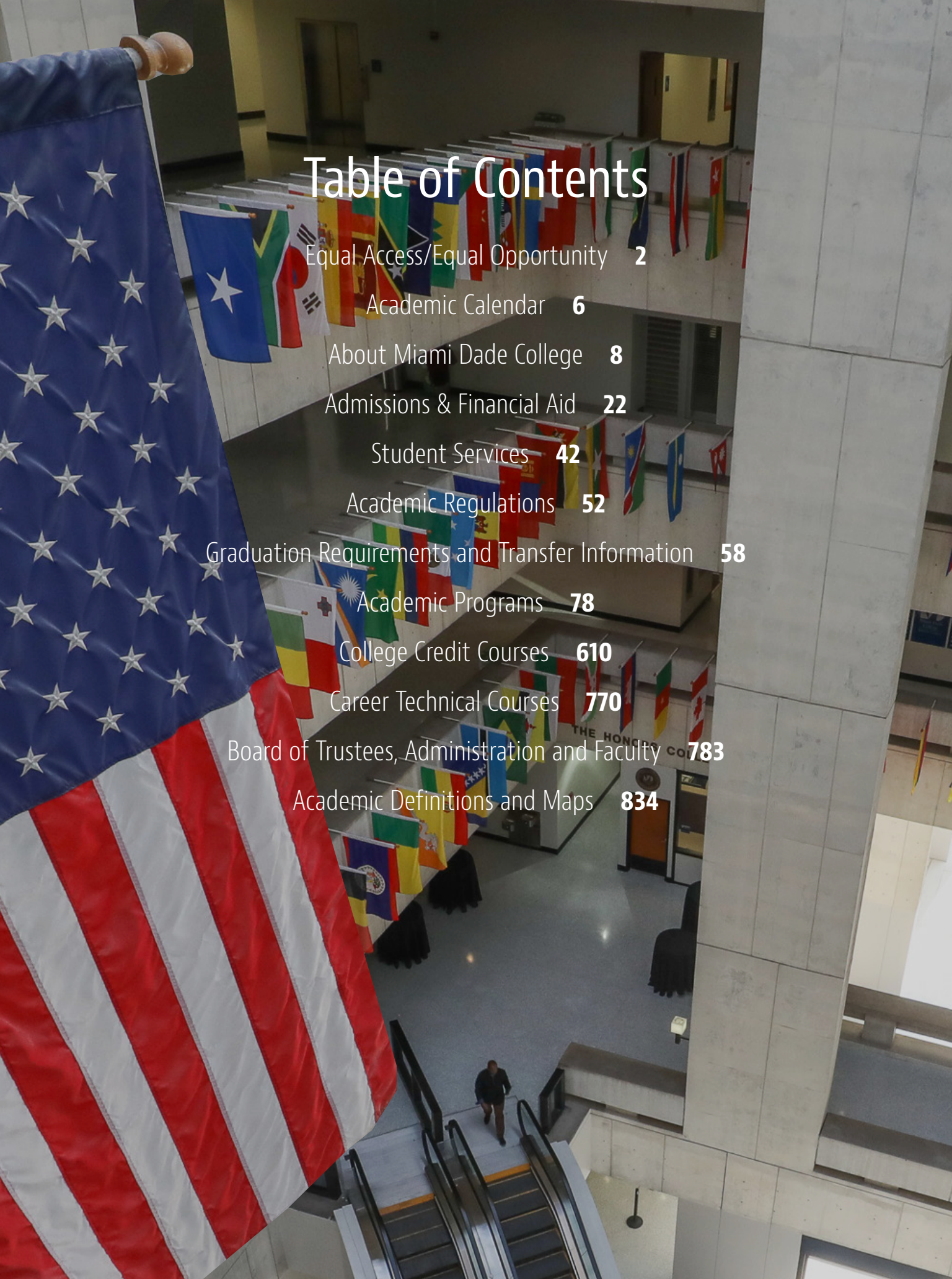


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Academic Calendar 2024 - 2026

The Office of the College Registrar maintains several calendars, each of which provides details for a separate category of information. The Academic Calendar is published once each semester. It contains important dates for registration, fees, graduation, and other academic deadlines. For more information, please visit Miami Dade College's Academic Calendar at http://www.mdc.edu/academics/calendar/.

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ABOUT MIAMI DADE COLLEGE

Miami Dade College (MDC) offers a wide range of programs designed to meet the needs of Greater Miami. The College offers associate and baccalaureate degree options and a wide range of career and technical certificate and specialized programs. MDC currently offers five Bachelor of Applied Science (BAS) degrees and 12 Bachelor of Science (BS) degrees which are academically rigorous and innovative in Business, Education, Entertainment, Health Science, Nursing, Public Safety, and STEM related fields. The Associate in Arts (AA) degree, designed to prepare students for further study at four-year institutions, includes more than 70 pathways leading to the baccalaureate degree. The College also maintains more than 60 transfer agreements with colleges and universities across the state and country, guaranteeing entry for MDC students who meet the entry criteria. With more than 60 areas of study, the Associate in Science (AS) degree, prepares students for direct entry into the workforce. Our graduates take advantage of the College's numerous partnerships with innovative businesses throughout South Florida. In addition to these degrees, the College offers numerous short-term career and technical certificate programs which are stackable career ladders towards and associate in science degree as well as courses of study to enhance career knowledge through continuing education.

The Open-Door Policy

Miami Dade College's open-door admissions policy provides educational opportunities to community residents and to national and international applicants. Anyone seeking to benefit from the degree or short-term certificate programs, or from the College's student and community services, is encouraged to enroll. The College welcomes all students regardless of gender, race, color, marital status, age, religion, national origin, disability, veteran's status, sexual orientation or genetic information.

Mission Statement

As democracy's college, Miami Dade College changes lives through accessible, high-quality teaching and learning experiences. The College embraces its responsibility to serve as an economic, cultural and civic leader



for the advancement of our diverse global community.

Vision Statement

To be the recognized leader in student learning, achievement and success while enriching our community

Core Values

- An exceptional learning environment that challenges students and empowers them to attain their academic goals
- An international perspective that makes our students civically engaged and globally competitive
- A commitment to evidence-informed decision making and accountability
- Innovation and efficiency that ensure affordability while optimizing educational quality
- An exceptional work environment that engages an exemplary and diverse workforce
- Quality community partnerships that serve as the foundation for the development of relevant workforce, cultural and civic programs
- Cultural initiatives that capture the richness of Miami-Dade County's multicultural fabric
- Environmental awareness that results in intentional sustainability practices

MDC History

Opening Doors

Miami Dade College opened its doors in 1960 with just under 1,400 students. Dade County Junior College (DCJC), as it was known at the time, was founded amid the era of Civil Rights, desegregation and an influx of asylum-seekers from Cuba. The student body included seven black students who made DCJC the first integrated junior college in Florida, along with Cuban refugees seeking a better life in America. The College was open to any Miami-Dade County resident who had graduated from high school. Tuition was free to all county residents.

The institution's first graduating class had fewer than 200 students and by 1963 was being referred to as Dade Junior College. By the mid-1960s nearly 15,000 students were attending the original North Campus, its buildings bursting at the seams. While new construction got underway at the College's first campus, plans were made for a second campus in Kendall and a third in Downtown Miami. South Campus (Kendall) would open in 1964.

With more than 23,000 students by 1967, the College was the fastest growing junior college in the U.S. and the largest institution of higher learning in the state of Florida. During this era of tremendous growth, the College enrolled more freshmen than the University of




MIAMI-DADE JUNIOR COLLEGE
NORTH CAMPUS



Florida, Florida State University and the University of South Florida combined.

In 1968, the Florida Legislature separated community colleges from the public school system and the College was then governed by its own District Board of Trustees.

Access with Excellence

A philosophy of "access with excellence" defined the 1970s for the College. A bold institutional review reaffirmed its open-door policy, set new academic goals and raised the standard for all community colleges across the country. Dr. K. Patricia Cross, 20th century thought leader and then-visiting professor at Harvard University's Graduate School of Education, called the College "the most exciting institution of higher education in the country."

The campus in Downtown Miami officially opened in 1970 and would later be renamed for one of the College's founders, Mitchell Wolfson.

In 1973 the College changed its name to Miami-Dade Community College (MDCC) to reflect its growing prominence in the community college movement, and in keeping with the county's name change, from Dade to Miami-Dade, which took advantage of the international name recognition of Miami.

Medical Center Campus opened its doors in 1976 in the heart of Miami's flourishing medical district as the College's fourth campus. Today, this marvel of medical and health technologies is referred to as Medical Campus.

Bilingual studies became a full-fledged division in 1979, with more than 2,000 students enrolled in outreach centers in Little Havana, making it the largest bilingual program in all of higher education.

Unprecedented Achievement

In the 1980s, burgeoning MDCC reflected the greatly expanding diversity of South Florida. During this period, 30% of the College's students were immigrants; English was not the native language for 46%; two-thirds were minorities; and 56% were women. Part-time students were the norm as those seeking credentials for greater earning potential continued to work to support themselves and their families.

A modest College-sponsored book fest, "Books by the Bay," was held in 1983 at Wolfson Campus, and in 1984, the event officially became Miami Book Fair International. The annual eight-day festival would grow into the largest and most comprehensive community-rooted literary gathering in the United States. Miami Book Fair, as it is now known, will celebrate its 40th anniversary in 2023.

In 1985, the MDCC became the first community college in the U.S. to graduate 100,000 students. That same year the College celebrated its 25th anniversary and became nationally recognized when the prestigious University of Texas Community College Leadership Program identified the College as the No. 1 community college in America.

New World School of the Arts (NWSA) at MDC opened in 1988 and would be recognized as one of the premier arts high school/college programs in the country. NWSA, in further partnership with Miami-Dade County Public Schools and the University of Florida, provides a comprehensive artistic, creative and academic program, conferring high school diplomas, Associate in Arts degrees, and bachelor's degrees in Fine Arts and Music in programs accredited by the National Association of Schools of Dance, Music, Theater and Art & Design.

Advancement and Opportunity

To kick off the 1990s, the College initiated comprehensive reforms to academic programs and administrative operations. Academic core and electives were modernized for a curriculum to meet the needs of a dynamic community. Advancements were not limited to academics; improvements were also made to human resources, maintenance operations and budgeting. In addition, the College's new Technology Master Plan emphasized both academic and administrative computing. Throughout the decade, the College sought to keep pace with the changing economy and workforce, developing strong partnerships in business and industry. More than 50 new degree and short-term certificate training programs were developed, all aimed at emerging industries and South Florida's job market.

In 1990, a fifth campus opened in Homestead with just 350 students. Classes were held in the basement of the First Baptist Church. The next year, a modern campus facility would be built to serve the growing student population in southern Miami-Dade County.

The College established its Cultural Affairs department in 1990, tasked with producing and presenting the newest, most challenging contemporary and cultural-specific works with an emphasis on creations reflective of Greater Miami's multi-ethnic community.

Also in 1990, the College launched the Cultura del Lobo performing arts series along with visual arts programming and campus galleries. What would later become Live Arts Miami, these performing and visual arts programs are celebrated as the most eclectic arts offerings in Miami, presenting artists from across the globe.

In 1992, the College became the first community college in the country to establish an Endowed Teaching Chair program. More than 300 faculty have been recognized with the honor since.

In 1995, MDC's aviation school was officially renamed the Eig-Watson School of Aviation after Lois Eig-Watson, once a flight student herself and a former faculty member at Kendall Campus. The school had been a pioneer in aviation education since its beginnings in 1961.






Jazz at Wolfson Presents started entertaining audiences in 1998 by showcasing renowned musicians to educate jazz students and to offer a cultural experience for the entire college community and the people of Downtown Miami. The popular program is now in its 24th season.

The College's sixth campus became a reality in 1998 when the InterAmerican Center in Little Havana was granted campus status by the District Board of Trustees.

Virtual College began in 1997, allowing students to take classes remotely. Recognition soon followed when Yahoo! Internet Life proclaimed the College "WIRED" and voted it "second best of all colleges and universities." The College's information technology efforts also gained residence in the Smithsonian's permanent collection with the nomination for the *ComputerWorld* Smithsonian Award for Technological Innovation in 1998. Remote learning at the College would greatly expand by the 2020s under a new name, MDC Online.

The New Learning Agenda

The College kicked off the new millennium by enrolling its 1 millionth student and obtaining state approval to offer bachelor's degrees. The College also launched its new "Learning Agenda" to advance contemporary learning models and student support programs, as well as campus, faculty and leadership development efforts.

In 2002, the City of Miami turned the historic Tower Theater over to the College to operate as a movie theater and cultural center. Originally opened in 1926, the popular neighborhood theater was the first in the county to offer Spanish subtitles for English-language movies, beginning in 1960, in recognition of the rapidly rising Cuban refugee population.

In 2003, the Florida Legislature formally approved the school's name change to Miami Dade College (MDC). That was also the year that the College began offering four-year degrees.

The Hialeah Center became the Hialeah Campus in 2004, MDC's seventh campus.

Also in 2004, the College acquired Miami Film Festival from Florida International University. This international film event serves as a major film showcase for world cinema and has become renowned for championing films made by the South Florida community, first-time feature filmmakers and International Feature Film submissions to the Academy Awards. Miami Film Festival will celebrate its 40th anniversary in 2023.

In 2005, MDC awarded its first bachelor's degrees.

The Honors College opened to academically gifted students in 2005. Students receive the prestigious Honors









College Fellow Award, which provides free tuition and fees as well as a generous stipend for books and other expenses. The Honors College prepares students for transfer to many of the most prestigious colleges and universities in the nation, and was once referred to by *TIME* magazine as an "Ivy Stepladder."

Also in 2005, MDC became the proud steward of the historic Freedom Tower and would become home to the College's Museum of Art and Design (MOAD) and MDC Special Collections. Completed in 1925, the building was originally the home of the *Miami Daily News*, the city's oldest newspaper. The "Ellis Island of the South" served as the Cuban Assistance Center from 1962 through 1974, offering nationally sanctioned relief to the Cuban refugees seeking asylum. One of those refugees was then-teenager Padrón Campus , who would later become president of the College in 1995. The Freedom Tower was designated a National Historic Landmark in 2008.

West Campus, the youngest of MDC's eight campuses, opened in 2006 in Doral with just 150 students.

In 2008, MDC's Medical Campus began offering a Bachelor of Science in Nursing in response to workforce needs in that industry. The School of Nursing had been established in the early years of the College and has graduated more than 23,000 nurses since. In 2012, the school would be renamed the Benjamín León School of Nursing.

MDC TV debuted in 2008 as the College's own television network. MDC TV is broadcast to millions of cable TV subscribers throughout Miami-Dade County and has won a total of seven Emmys and 14 nominations from the Suncoast Regional Chapter of the National Academy of Television Arts & Sciences.

In 2009, The Carnegie Foundation for the Advancement of Teaching named MDC among the select group of institutions granted its prestigious Community Engagement Classification.

Also in 2009, MDC took over the Lynn and Louis Wolfson II Florida Moving Image Archive, the nation's largest state archive of video and film.

Opened in 2010, the Miami Culinary Institute (MCI) at MDC is at the epicenter of culinary education excellence. Mixing classic skills and innovative techniques used by the world's best chefs, the program is at the forefront of the industry. MCI has won several awards and distinctions, and has also been home to world-renowned chefs.

In 2010, Miami Dade College celebrated its 50th anniversary.

Innovation • Expansion • Purpose

Over the next decade, MDC would take higher educa-

tion innovation to entirely new levels with groundbreaking initiatives and curricula that would evolve in sync with local industry as well as the global workforce. By 2011, the College was offering more than 20 baccalaureate degrees including a new Bachelor of Science in Biological Sciences.

MDC was selected for a Bill and Melinda Gates Foundation Completion by Design grant in 2011 to increase student success and boost graduation rates among low-income students.

Also in 2011, the College began offering its unprecedented American Dream Scholarship, which pays for in-state tuition and fees for the first two years of college for all newly graduated high school students who could not otherwise afford it. Graduating seniors must have a minimum 3.0 GPA to qualify.

The Koubek Center was acquired by MDC in 2011. Built in 1929, the South Florida landmark has a long and rich history as a cultural hub dedicated to building community through the arts with a 200-seat theater, an expansive garden, classrooms and multi-use spaces.

In 2012, the College became the first institution of higher learning in Florida to offer a Bachelor of Applied Science in Public Safety Management.

In 2013, the College enrolled its 2 millionth student.

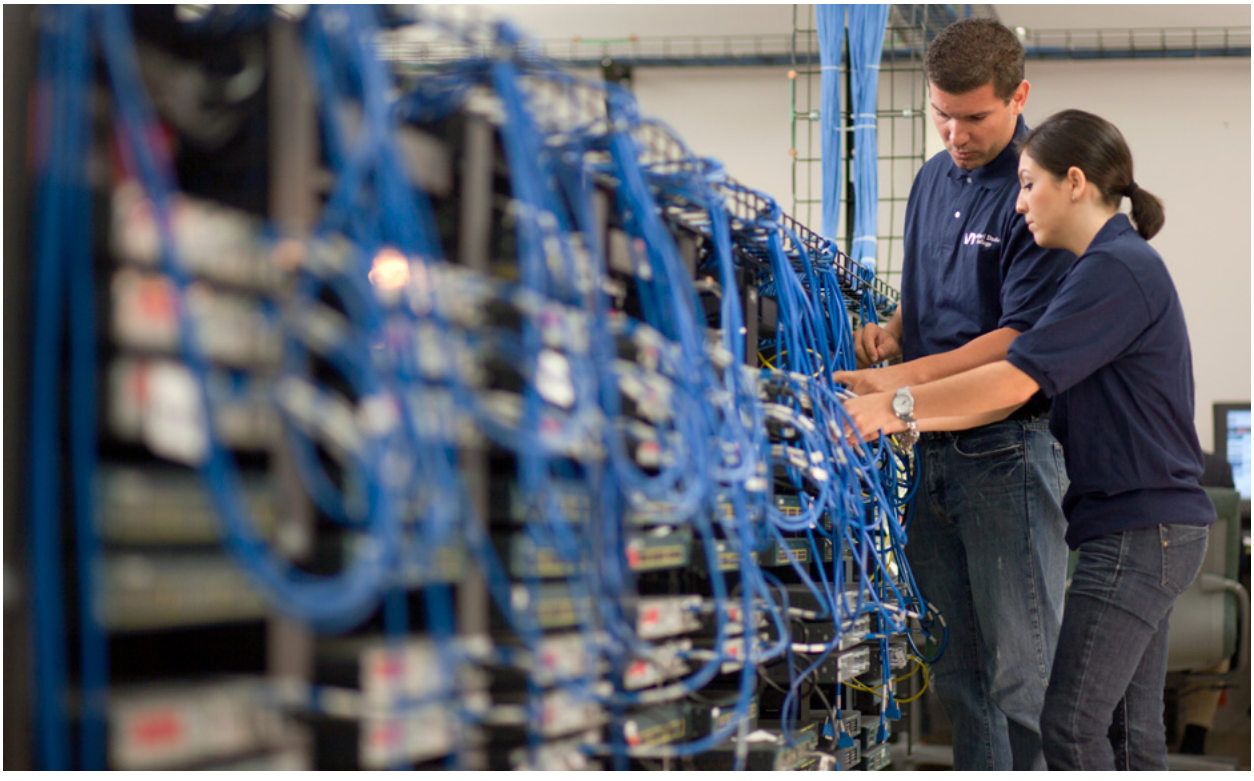
The President's Higher Education Community Service Honor Roll is the highest federal recognition a college or university can receive for its commitment to volunteering, service learning and civic engagement, and in 2013, MDC received its seventh consecutive accolade.

In 2014, the Student Success Award of Excellence was conferred on MDC by the American Association of Community Colleges (AACC) for advancing diversity.

In 2015, MDC opened the new 9,000-square-foot, state-of-the-art Miami Animation & Gaming International Complex (MAGIC). The facility is a working animation studio where students prepare for careers as creative directors, graphic artists, illustrators and 2D and 3D animators. MAGIC offers an intensive, hands-on program where students have the opportunity to work with industry powerhouses such as Nickelodeon and Telemundo. They also gain hands-on experience in augmented and virtual reality (AR/VR).

Ashoka U designated MDC as a 2015 Changemaker Campus for its role in promoting social innovation, change-making and thought leadership in the Miami community and abroad.

MDC launched its cutting-edge Miami Fashion Institute (MFI) in 2016. Located at the Wolfson Campus in the heart of Downtown Miami, it is the only facility of its kind at a public institution of higher education in Florida, and one of only a handful nationally. Real-world experience meets the classroom with faculty that includes renowned artists, designers and business professionals. MFI offers





Associate in Science degrees in both Fashion Design and Fashion Merchandising, as well as a College Credit Certificate in Pattern Making and Construction.

The Idea Center at MDC opened in 2016 as an "industry-agnostic ecosystem of creativity, innovation and entrepreneurship for MDC students." The Idea Center offers classroom education, professional development opportunities and experiential learning programs to MDC students and the community at large.

Also in 2016, MDC acquired the historic David W. Dyer building, which is being restored for academic and civic purposes. Built in 1933, the building is on the National Registry of Historic Places and on the City of Miami's list of historic places.

In 2017 MDC was selected to join the exclusive Frontier Set, a group of higher education institutions aiming to eliminate the racial, ethnic and socio-economic barriers that bar students from completing college.

MDC's business school was renamed in 2018 the Miguel B. Fernandez Family School of Global Business, Trade and Transportation in honor of billionaire entrepreneur and philanthropist Miguel "Mike" B. Fernandez, a longtime friend and advocate of the College.

MDC's Cybersecurity Center of the Americas opened in 2018 to address the demand for cybersecurity professionals. MDC is the only institution of higher learning in Florida with a Cyberbit range, a training facility that provides students and working professionals access to hands-on cybersecurity education and simulated training that mirrors real-life cyberattack scenarios.

In 2019, Tesla chose MDC as its first partner in the state of Florida for its Tesla START automotive training program. The 15-week Tesla START program trains students to become Tesla automotive technicians at a new state-of-the-art facility at West Campus, fully equipped with Tesla vehicles and equipment and built to Tesla specifications.

Building on its outstanding record, MDC once again made *The Chronicle of Higher Education's* Great Colleges to Work For in 2019, marking its 11th consecutive year on the list.

MDC opened its new Cloud Computing Center in 2019. The state-of-the-art Center is the only one of its kind in Florida, and offers the state's only College Credit Certificate and Associate in Science in Enterprise Cloud Computing. It also hosts the College's first Cloud Computing Academy, which provides training for both MDC students and members of the community. In collaboration with Amazon Web Services (AWS), Microsoft, Azure and Google Cloud, among others, the new Center allows technology leaders and industry experts to engage with students who are learning about leading cloud platforms and receiving industry certifications.

In 2019, MDC opened the new Center for Learning, Innovation and Simulation (CLIS) at Medical Campus. The five-floor Center features an entire floor dedicated to advanced medical simulation that facilitates the practice of working in real-world clinical environments such as operating and emergency rooms. CLIS is a one-of-a-kind health training venue in the region and rivals those at top medical schools around the nation.

MDC was awarded the 2019 Aspen Prize for College

Excellence, the nation's highest recognition of achievement and performance among state colleges across America. The award is considered the highest and most sought after among American colleges.

MDC was also awarded the 2019 Lumina Foundation Education Innovation Judges Choice Prize for its adult learner "earn and learn" Tesla START program.

Also in 2019, after the College's fourth president, Padrón Campus , announced he was stepping down, the InterAmerican Campus was renamed the Padrón Campus Campus in honor of his part in developing the location as a campus.

MDC opened its new cutting-edge BIT Center in 2020. The 6,000-square-foot facility is a cross between a Silicon Valley tech company and a futuristic classroom. The BIT Center examines and promotes the role of technology in digital transformation, process automation and analytics in the ever-changing business landscape.

In 2020, Madeline Pumariega was named the first female president to lead Miami Dade College. Adding to the historic nature of this appointment was that Pumariega is an alumna of MDC.

The School of Engineering and Technology (EnTec) at MDC announced two new degrees in 2021: Bachelor of Science in Information Technology and Bachelor of Science in Cybersecurity. The College has developed more than 50 new or revamped degrees and embedded over 30 industry certifications into tech-related courses for these sought-after skills.

In 2021, MDC joined the AI4ALL College Pathways program, a nationwide initiative to foster AI-related careers and to embed AI concepts into all associate degree curricula in coming years.

MDC launched Rising Black Scholars in 2021. The trailblazing initiative provides a full-ride scholarship and a host of curated services for two years to students of African descent who are graduates of a Miami-Dade County high school.

In 2021 MDC's award-winning newspaper *The Reporter* was named the top college student newspaper in Florida for the 10th year in a row by the Florida College System Publications Association (FCSPA) The print publication was launched in 2010 and is a product of three now-defunct student newspapers at MDC: *The Falcon Times* launched in 1961, followed by the *Catalyst* in 1966 and *The Downtowner* in 1970, which was renamed the *Metropolis* — a magazine that still exists today. Through the years, the College's student newspapers have won 21 National Pacemaker Awards and received hundreds of honors from the FCSPA.

The Goldman Sachs 10KSB celebrated its 21st cohort at MDC in 2021. The practical education program provides entrepreneurs with valuable skills for growing their businesses at no cost. Since the program's inception at MDC in 2013, 10KSB has graduated over 500 small-business owners.

In 2021, Excelencia in Education, the nation's premier authority on efforts accelerating Latino student success in higher education, recognized MDC with its Seal of Excelencia. That same year, the College was also recognized by the U.S. Department of Education as one of the leading institutions for Hispanics in the United States.

MDC once again ranked No. 1 in the Florida College System (FCS) for reporting the most students earning industry certifications during the 2021 reporting year.

In its continuing efforts to provide greater access, MDC launched the Presidential Scholars Program in 2021. This initiative offers high-performing graduating high school students in Miami-Dade County the opportunity to complete an associate degree at no cost.

MDC established a transfer articulation agreement in 2021 with the University of Miami (UM) that allows MDC graduates with a Bachelor of Science in Data Analytics to seamlessly transfer to a Master of Science in Data Science at UM.

According to the 2021 rankings released by *U.S. News & World Report,* MDC's School for Advanced Studies (SAS) was ranked the fifth best high school in the United States and the best high school in Florida. SAS takes pride in its diverse student population, nurturing learning environment, and commitment to providing all students with a rich and rigorous liberal arts education, with many of its students specializing in STEM.

In 2021, MDC's women's volleyball team won their 12th state championship in 16 years. The team has won a total of 48 state titles and 11 national titles overall with back-to-back NJCAA National Championships in 2017 and 2016. And, for the first time since 2014, MDC's baseball team was crowned state champions in 2021. Prior to that, MDC baseball won two national titles: in 1964 at Dade North and in 1981 at Dade South. In all, MDC baseball teams have made 13 trips to nationals since first qualifying in 1964. MDC's long history of athletic excellence boasts 35 NJCAA national titles, including 15 in women's sports, and dozens of All-Americans.

The College joined the NASA Florida Space Grant Consortium (FSGC) in 2021, a statewide network of colleges and universities supporting the expansion and diversification of Florida's space industry through grants, scholarships and fellowships to students and educators in Florida.

By 2021, MDC had conferred more associate degrees than any other community college in the country. And among all large postsecondary Institutions, MDC ranked No. 1 in associate degrees awarded to Hispanics; No. 4 in associate degrees awarded to Black students; No. 1 in

associate degrees in Liberal Arts and Sciences, General Studies and Humanities; and No. 5 in associate degrees in Nursing and Health Professions & Related Sciences.

As Miami's relevance in the technology and startup landscapes dramatically expands, the College is anticipating and meeting industry needs with a host of high-tech, in-demand career options, including Artificial Intelligence, Cybersecurity, Cloud Computing, Data Analytics, AR/VR, Tesla electric vehicle technology, Animation & Gaming, Business Entrepreneurship and more.

- Nearly 14,000 graduates from MDC's eight campuses earned degrees for the 2020-21 academic school year.
- The College's eight campuses and outreach centers offer more than 300 academic pathways, associate and bachelor's degrees, and career certificates.
- MDC is among the most diverse institution in the nation with 164 nations and 53 languages represented in its student body.

From its earliest beginnings, Miami Dade College has been at the forefront of innovation and cultivating opportunities in an ever-changing career outlook. The College's efforts have created new generations of professionals trained and encouraged to pursue their passions and discover their purpose for a life of career success.

Campuses & Outreach Centers

MDC enrolls more than 170,000 students at its eight campuses and multiple outreach centers throughout Miami-Dade County. While each campus has developed its own distinct identity, the entire College is united around a fundamental mission: providing access to high-quality educational opportunities for all residents of the community.

North

Located on 245 acres in northern Miami-Dade County, this beautifully landscaped campus was the College's first. It was built in 1960 on land that once hosted a World War II Naval air station. The main academic buildings of the Campus surround a serene lake and lush walking paths. North Campus is a major gateway for students wishing to upgrade skills, complete one-year certificate programs, prepare for licensing exams or complete a bachelor's degree. North Campus is also recognized for its unique programs. The School of Justice, Public Safety, and Law Studies offers the Bachelor of Applied Science with a major in public safety management and provides basic training for all police and correctional officers in Miami-Dade County as well as more than half the private

Miami Dade College PRESIDENTS



Kenneth R. Williams
Tenure: 1959 – 1962



Peter Masiko Jr.
Tenure: 1962 – 1980



Robert H. McCabe
Tenure: 1980 – 1995



Eduardo J. Padrón
Tenure: 1995 – 2019



Rolando Montoya
Interim President
Tenure: 2019 – 2020



Madeline Pumariega
Tenure: 2020 – present

security personnel. The Fire Science Program trains all Miami-Dade County firefighters and provides continuing education for municipalities throughout the county and the East Coast. A live fire training facility is the only one of its kind in South Florida.

Additionally, the School offers programs in chemical and watershed management. North Campus also houses the Funeral Services program that trains morticians and funeral service directors, the only program of its kind in southeastern Florida. Those students wishing to pursue careers in film and digital imaging, television, and sound engineering, or in the radio and music business take advantage of the School of Entertainment Technologies. This School operates the cable station MDC-TV, and in 2008 it inaugurated the Televisa Centre for Film and Television Production, a hub for Latin American and Caribbean entertainment industries. North Campus also administers the Carrie P. Meek Entrepreneurial Education Center, which promotes excellence in education, entrepreneurship, and workforce preparation.

In January 2010, MDC celebrated the official opening of the College's state-of-the-art science complex at North Campus. The first of its kind in north Miami-Dade County, the facility will create new educational and career-training opportunities for area residents and beyond. The 90,000 square foot complex features 21 laboratories with media stations, a Palmetum, a rooftop observatory, classrooms, lecture hall, faculty and administrative offices, botanical garden, greenhouse, an outdoor plaza and café.

The new science complex is an invaluable tool for all MDC students who must meet science requirements to graduate. In particular, it will serve as a hands-on training venue for students interested in biotechnology, chemical technology, green and environmental sciences, and advanced manufacturing careers, among many other science, technology, engineering and mathematics (STEM) professions. Training in these areas can lead to an array of jobs, from research technologist to environmental scientist. Another goal is for the complex to become a top regional research facility.

The School of Engineering, Technology, and Design at North Campus launched a Bachelor of Applied Science (B.A.S.) with a major in Film, Television and Digital Production in 2010. Designed to provide students with a seamless, workforce driven baccalaureate degree that will enable them to obtain immediate employment in the field of digital production, thereby meeting South Florida's workforce needs, the B.A.S. also serves those currently in the production workforce who need to update their skills to increase their career opportunities and wages.

Kendall

Kendall Campus, situated on a 185-acre tract of trees and lakes, opened in 1967, and has become home to a wide variety of academic programs and specialized institutes. The campus features 14 buildings equipped with the latest technologies, a wellness center with an Olympic-sized pool and several athletic fields.

Kendall Campus offers a comprehensive range of learning opportunities. Kendall provides students with transfer programs designed to facilitate the move to four-year institutions, programs that enhance and modernize professional and technical skills, and preparatory programs for licensing or certification.

Kendall Campus provides students with academic support services focused on enhancing student learning in science, mathematics and engineering. The Environmental Center is a 10-acre facility on campus that hosts Eco Tours for more than 10,000 schoolchildren each year. The Gourmet Academy is the culinary showpiece of Kendall Campus and offers a variety of noncredit programs and courses to the community. Located west of the main campus, the Landscape Technology Program maintains a large nursery and several greenhouses. One of the additions to the campus is the Earth Sciences Museum and Demonstration Center, which boasts one of the largest collections of geological specimens in the southeastern United States. The Kendall Campus art gallery provides the campus and surrounding community with several exhibitions each year and houses a permanent collection of more than 700 works. Also, award-winning publications such as ***Miambiance,*** Kendall's literary magazine, highlight students' literary excellence.

Kendall Campus offers a Bachelor of Applied Science (B.A.S.) in Supervision and Management to prepare graduates for leadership roles and positions in a variety of industries. The upper-level coursework includes applied management practices, prepares students for supervisory and management opportunities within their technical field, and affords students the opportunity to demonstrate the application of acquired knowledge, skills and competencies through internships and capstone experiences.

After graduation, students will be prepared to advance to supervisory and managerial positions in a wide variety of industries, including financial services, retail, hospitality, marketing, aviation management, food service, insurance, real estate, office and administration, and sales.

Wolfson

Wolfson Campus opened in 1970 by holding classes in the storefronts of downtown Miami. With the completion of the campus' first permanent facility in 1973, Wolfson Campus catalyzed a downtown renaissance by hosting all manner of civic and cultural discourse. It is the only comprehensive urban campus in the city. Located within the city's financial, governmental, technological and cultural hubs, Wolfson Campus capitalizes on its unique geo-

graphic resource by offering programs in banking/financial services, business, computer technology, paralegal studies, architecture, economics, hospitality management, engineering, the arts, humanities and social sciences.

The campus also houses the New World School of the Arts, a comprehensive high school and college program, recognized as one of the best performing and visual arts schools in the country.

Each year Wolfson Campus hosts Miami Book Fair. This is the nation's largest and finest literary festival, bringing hundreds of renowned authors, publishing houses and hundreds of thousands of fairgoers to the Campus. ***The New York Times*** calls this Wolfson Campus event the model for all other book fairs.

The School of Computer and Engineering Technologies at Wolfson Campus offers a Bachelor of Science in Electrical Engineering Technologies. This degree addresses the local workforce need for baccalaureate-level engineers, providing job opportunities for MDC's Associate in Science graduates to earn, at a local institution, a degree that will support higher-paying careers.

In the spring of 2011, MDC inaugurated the Miami Culinary Institute at its new, state-of-the-art, green facilities, training students in the latest sustainable food and energy technologies with unparalleled nutrition and culinary knowledge.

Medical

In 1976, Miami Dade College opened its Medical Campus on 4.3 acres within the city's medical/civic center complex. Along with the other members of this complex (the University of Miami Miller School of Medicine, UM/Jackson Memorial Hospital, Veterans Administration Hospital and Miami-Dade County Public Health Service), Medical Campus forms the backbone of Miami's health care community. The campus offers specialty disciplines in nursing and allied health, and state-of-the-art technologies that help to ensure that students are prepared in these and other challenging medical careers. The Medical Campus continues to be one of the top producers of nurses in the South Florida area. The Bachelor of Science in Nursing was launched in 2008. More than 20 Allied Health programs are offered, including Physician's Assistant, Opticianry, Emergency Medical Technician, Veterinary Technology, Physical Therapist Assistant, Dental Hygiene and more. Quality medical faculty guide students with support from tutors, labs and the Student Success Center.

Medical Campus launched a Bachelor of Applied Science (B.A.S.) in Health Sciences in 2010. Designed to provide students with entry-level skills specific to the allied health professions and to supplement the workforce-specific skills that are inherent in Miami Dade College's associate degree program, the B.A.S. in Health Sciences also offers students a Physician Assistant Studies option. The B.A.S. curriculum provides an interdisciplinary approach to health care by equipping practitioners with specialized health delivery system and patient management strategies, including medical knowledge and skills, the teaching of multicultural health care clients, leadership and management strategies, and research approaches that address health care issues, and alternative medicine.

Homestead

In 1990, Homestead became the fifth campus of Miami Dade College. It was opened in the historic downtown district of the city of Homestead with the mission to deliver a full range of higher education programs for the Homestead/Florida City communities. In fulfilling its mission, the campus enhances the community's capacity to meet cultural and social needs, in turn fostering a stronger sense of community. This togetherness was very important following the devastation of Hurricane Andrew and the closing of the Homestead Air Force Base. After Hurricane Andrew, the campus, like the city of Homestead, began to rebuild, adding four new facilities by 1996. In January of 2002, the College opened its Aviation Building, housing a simulator of an airport control tower and runways, as well as classrooms and avionics equipment to support the aviation program. The aviation program also extends to facilities at Miami International Airport and Miami Executive Airport.

Today, Homestead Campus is a modern, six-building complex offering an array of academic programs, including aviation, entertainment technologies, arts and sciences, and nursing. The campus' award-winning structures include a computer courtyard, student learning lab, career center and specialized assessment facility. As the community continues to grow, Homestead Campus will also grow, expanding its horizons to meet the needs of the South Dade community.

Padrón

Padrón Campus is located in the heart of Little Havana, a colorful and lively neighborhood in Miami's historic Latin Quarter. The seed for Padrón Campus was planted in 1972 when the College offered two night courses at the Belen Jesuit Prep School. Sixty students enrolled. By 1979, the program had blossomed into the Wolfson Campus' Division of Bilingual Studies, enrolling 2,000 students.

In the early 1980s, an influx of students from Latin America and the Caribbean led to the addition of day classes and full-time faculty. By 1986, the division had grown to "center" designation, and it moved into a building in Little Havana purchased by the College Foundation. What was then called InterAmerican Center

became the largest bilingual learning environment in all of higher education.

With enrollment at 5,500, the College District Board of Trustees petitioned the state of Florida for "campus" status. The request was approved and on March 27, 2001, InterAmerican Campus – its original name – was born. The District Board of Trustees pronounced InterAmerican Campus a full-fledged, full-service campus, the sixth of Miami Dade College.

In May 2019, the campus was renamed the Padrón Campus in honor of the longtime College president, who announced he was stepping down effective August 2019. Today, the campus provides service to students in more than 200 programs. It is also home to the College's School of Education, which offers bachelor's degree programs in secondary mathematics education, exceptional student education, and secondary science education in the areas of biology, chemistry, physics and earth/space science.

Hialeah

Hialeah Campus became MDC's seventh campus, accorded official campus status by the Florida State Board of Education in 2005. The campus serves the Greater Hialeah-Miami Lakes area, offering day and evening classes six days a week. Courses leading to the Associate in Arts and Associate in Science degrees are offered. Educational opportunities are also available through career technical education programs, as well as through courses providing career entry in computer technology, office technology, electronics and early childhood development. Hialeah Campus houses a large and comprehensive English-language training program for speakers of other languages in various instructional formats.

West

The West Campus was approved by the Florida State Board of Education in 2005 and became a designated-branch campus of Miami Dade College in July 2017, with the approval of the Southern Association of Colleges and Schools Commission on Colleges. Serving one of the fastest-growing locales in Miami-Dade County, including Doral and surrounding areas, the West Campus offers courses toward the Associate in Arts and Associate in Science degrees. Corporate training programs are also offered at the campus, which opened for classes on March 1, 2006, and promises to be the next exciting learning environment for the greater Miami community.

The Carrie P. Meek Entrepreneurial Education Center

The Carrie P. Meek Entrepreneurial Education Center is an outreach program of the North Campus. It opened its doors on Oct. 4, 1989, in the heart of Liberty City, a predominantly African-American community within the City of Miami. The mission of the Entrepreneurial Education Center is to implement the broader mission of the College while promoting entrepreneurship, business growth and economic revitalization for the local residents of Liberty City and the surrounding communities.

The Entrepreneurial Education Center offers a vast array of college credit and noncredit courses. Students pursue certificate and vocational programs in a number of fields; they participate in seminars and conferences that promote workforce training and business skills and facilitate entrepreneurship and entry into the labor market.

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ADMISSIONS & FINANCIAL AID

Admissions

Admissions Information

In accordance with Manual of Procedure 4000 – Admission Criteria and Guidelines https://www.mdc.edu/procedures/Chapter4/4000.pdf and section 1007.263 Florida Statutes, the following requirements have been established for college credit and vocational credit admission to Miami Dade College (MDC).

Apply and get admitted by completing the MDC admission application (http://www.mdc.edu/admissions/) and paying the $30 non-refundable application fee. Returning students do not pay the application fee. High school graduates who attended as dual enrollment students need to complete a new application. Get additional details if you're a veteran or international student. Make sure to select a major from our Academic Programs. Your admission to the college remains incomplete until all required official transcripts are submitted.

A. College Readiness and Developmental Education

MDC annually reviews and publishes the Placement Criteria document, which adheres to section 1008.30, Florida Statutes, on common placement testing for public postsecondary education. The Placement Criteria document details all placement testing and related requirements for first time in college, degree seeking students.

B. Admission Application Fees and Waivers

1. Student is a U.S. Veteran or active-duty military.
2. Student or family is receiving public assistance.
3. Student is living in federally subsidized public housing or experiencing homelessness.
4. Student is a ward of the state, an orphan, or is in foster care.
5. Student is an MDC Employee or Retiree.

C: Admissions to College Credit Programs for the Associate in Arts, Associate in Science, and College Credit Certificate programs with special admission requirements shall include (some programs have additional admission requirements):

1. Students with a standard high school diploma from any public high school in the United States or territories, per 1007.263, Florida Statutes.
2. Students who are at least 16 years of age and are demonstrating qualification to obtain a higher education per Federal Student Aid eligibility requirements by:

a. Passing an approved ability-to-benefit test, or
b. Completing six credit hours toward a degree or certificate.

3. Students with a Florida public high school withdrawal (completion) code eligible for college credit admission, as defined by the Florida Department of Education.
4. Students from non-public high schools in the United States and its territories that do not require validation, as noted in Section D.
5. Students awarded a Department of Education high school equivalent (GED) diploma in the United States and its territories, the High School Equivalency Test (HiSET), Test Assessing Secondary Completion (T ASC), or California High School Proficiency Exam.
6. Home-schooled students with a signed affidavit from their parent or legal guardian attesting that they completed a Florida home education program pursuant to 1002.41, Florida Statutes.
7. Students with the foreign equivalency of a United States high school diploma that meets the admission requirements to a recognized institution of higher education in their home country with original documentation that shows all the requisite seals and apostilles. The College reserves the right to require a certified official English translation if the language used in the documents is not English. Students who do not have the requisite seals and apostilles on the original foreign high school documentation may opt to obtain an official evaluation of their credentials from a National Association of Credential Evaluation Services (NACES) or Association of International Credential Evaluators, Inc. (AICE) member organization. Students must present this official evaluation to their campus Admissions and Registration Office. MDC reserves the right to require NACES evaluations for any transcripts in which we are unable to verify the authenticity or legitimacy of the documents provided.
8. Provide all of the following supplementary admission documents to the International Students Office in order to receive an I-20 Certificate of

Eligibility, which is needed to apply for the F 1 student visa prior to the beginning of the term for in which the students seek admission:

1. Copy of valid passport
2. Statement of financial resources available to sup-

port their educational expenses

3. Certificate of health and accident insurance, prior to enrollment.

D. Cases that Require Additional Validation

Additional validation is mandatory for applicants whose diploma does not meet the criteria above, and in cases where MDC has reason to believe that the diploma is not valid or was not earned from an entity that provides secondary school education.

In compliance with 34 CFR 668.16 (p), reasons that the high school diploma may not be accepted or may require additional validation include

1. The issuance of the high school diploma was based only on a test and/or payment of fee.
2. There is conflicting high school information.
3. The high school was previously questioned as being a diploma mill by MDC or other accredited higher education institution.
4. The private high school is not listed in the Florida Department of Education's Office of Independent Education and Parental Choice. The list is accessible at http://www.floridaschoolchoice.org/Information/PrivateSchoolDirectory/
5. The curriculum consisted of online/distance education instruction and the high school is not listed as an accredited institution by the Distance Education Accrediting Commission (DEAC). The DEAC maintains a list of accredited institutions that offer high school via distance education. The high school is not listed in the U.S. Department of Education's National Center for Education Statistics (NCES). The list of public high schools is accessible at http://nces.ed.gov/ccd/schoolsearch/ and the list of private high schools is at http://nces.ed.gov/surveys/pss/privateschoolsearch/.
6. The high school or its course(s) is identified by the National Collegiate Athletic Association (NCAA) as not accepted for athletic eligibility. NCAA ineligible high schools and/or courses will not be accepted for admission to the College. The NCAA information is accessible at https://www.ncaa.org/sports/2014/10/6/core-courses.aspx
7. Other evidence provides reason to believe that the diploma is not valid or was not earned from an entity that provides secondary school education.

***Once MDC renders a decision on the validity of a high school diploma, the decision is final and not subject to appeal.**

E. Transfer Students

Applicants who are transfer to MDC from other postsecondary institutions must request final, official transcripts from all of those institutions to be sent directly to MDC. Additional requirements are as follows:

1. Students who transfer from U.S. regionally accredited postsecondary institutions(s) with fewer than 6 college-level credits earned with "C" or higher grades must submit proof of valid high school graduation.
2. Students who transfer from U.S. nonregionally accredited postsecondary institution(s) may be admitted based on the high school graduation. Courses taken at nonregionally accredited institutions that adhere to the Florida Statewide Course Numbering System may be accepted.
3. Students who transfer from foreign postsecondary institution(s) approved by the country's Ministry of Education who provide original documentation showing all the requisite seals and apostilles must provide a certified official English translation if the language used in the documents is not English. Students with fewer than 6 college-level credits earned with "C" or higher grades must submit proof of valid high school graduation. MDC reserves the right to require NACES evaluations for any transcripts in which we are unable to verify the authenticity or legitimacy of the documents provided.

F. Dual Enrollment and Early Admission

Student's access to dual enrollment and early admission is authorized pursuant to 1007.271, Florida Statutes. Students in grades 6-12 who are enrolled in Miami-Dade County public schools, participating private and charter schools, or home school are eligible to participate in the MDC dual enrollment program. Students must have a minimum 3.0 high school unweighted grade point average and demonstrated readiness for college coursework..

G. Admissions to Baccalaureate Degree Programs

Baccalaureate degree applicants must meet all general and program specific admission requirements and pay a non-refundable $25 application fee.

H. Admission to Career and Technical Education Certificate Programs

Students who meet the admission requirements may be admitted to Career and Technical Education programs as well as the following (some programs have additional admission requirements):

1. Applicants who are at least 16 years of age and have left high school prior to completion.
2. Applicants who have been awarded a special diploma, as defined in section 1003.438 Florida Statute or a certificate of completion, as defined in section 1003.428 Florida Statute.
3. International students with a vocational credit student visa (M1) and the supplementary admission documents indicated in II.C.7 above.

I. Recruitment of Students

1. Student recruitment promotes enrollment by presenting the learning options available at MDC. The



recruitment team develops and implements activities consistent with the mission of the College. Activities include providing prospective students, parents, and other members of the community the current and accurate information regarding admission and registration, testing requirements, and program offerings, as well as other resources and related opportunities available at the College.

2. MDC refrains from unfair, deceptive and abusive marketing tactics in the recruitment of all students. In addition, MDC will refrain from using third party lead generators or marketing firms aimed at service members (veterans/military students). MDC will:
   a. Refrain from providing any commission, bonus, or other incentive payment based directly or indirectly on securing enrollments or federal financial aid, including tuition assistance (TA) for members, to any persons or entities engaged in any student recruiting admission activities, or making decision regarding the award of student financial assistance.
   b. Ban inducements such as gratuity, favor, discount, entertainment, hospitality, transportation, lodging, meals or other item of monetary value to any individual or entity, or its agents, including third party lead generators or marketing firms. Only salaries paid to employees or fees paid to contractors in conformity with the applicable laws are allowable for the purpose of securing enrollments of service members (veterans/military students) or obtaining access to TA funds.

J. Other Considerations

1. Certain academic programs have additional program admission requirements. Students need to check with the department that manages the program for more information.
2. Applicants who have been convicted of a felony or are the subject of an arrest pertaining to a controlled substance and who wish to apply for a program that leads to licensure should confer with the regulatory/licensing agency to determine eligibility for future credentialing and practice. Applicants who are determined to be not eligible for licensing for any reason may apply for admission to that program, but must recognize that program completion may not result in licensure or employment.
3. Miami Dade College has determined that the presence of students officially designated as Sexual Offenders/ Sexual Predators on campus may be disruptive to the College's programs and/or would interfere with the rights and privileges of other students. In accordance with section 1001.64(8)(a) Florida Statute, the College may consider the past actions of any person applying for admission or enrollment and may deny admission or enrollment because of misconduct if determined to be

in the best interest of the College. Therefore, MDC reserves the right to deny admission/enrollment to students who are officially designated as Sexual Offenders/ Sexual Predators.

4. MDC reserves the right to deny admission to applicants who have been incarcerated, convicted of a felony, experienced disciplinary problems at another educational institution, or who may pose a threat to the life and/or safety of its students, faculty, staff, community, or guests, as determined by the College administration. In accordance with section 1001.64(8)(a) Florida Statute, the College may consider the past actions of any person applying for admission or enrollment and may deny admission or enrollment because of misconduct if determined to be in the best interest of the College.

Admission to Career & Technical Education (CTE) Programs

A. The following persons are eligible for admission to the CTE programs of Miami Dade College: Graduates from accredited high schools, persons holding a high school equivalency diploma (GED), students who have completed a home education program evidenced by a signed affidavit from their parents or legal guardian stating that the student completed a home education program, or persons at least 16 years of age or older who have left high school prior to completion. Some programs may require high school completion or equivalent as a requirement of admission (consult campus admissions office).

B. Students enrolling in a CTE program of 450 or more contact hours are required to be tested for basic skills. All those who complete the program must meet basic skills competencies before the CTE is awarded.

C. A limited number of programs have supplementary admission requirements (consult campus admissions office).

D. Foreign students who require a student visa (M1) must also provide the supplementary admission documents indicated in 3 above.

How to Apply

Admissions Procedures and Supporting Credentials

Admission is a simple process, requiring a completed application, admission application fee and official transcripts of high school or college studies. International applicants have additional entrance requirements based on U.S. immigration rules and applicants for baccalaureate and limited access programs may have additional entrance requirements.

A. The admission application is accessible online at www.mdc.edu/admissions. A $30 non refundable application fee is charged for processing a student's first application. The application must be submitted prior to enrollment in classes.

B. International students must submit the application by the published deadlines. See deadlines at: https://www.mdc.edu/internationalstudents/admission/default.aspx. The International Student admission application fee is $50. All final, complete, and official domestic transcript(s) must be sent directly from the applicant's high school, college or other postsecondary educational institution to the Transcript Processing Services office at MDC.

C. High school equivalency diploma or certificate holders should be submitted to the Transcript Processing Services office. In Florida, this certificate is the General Educational Development Diploma (GED). See the GED section for additional information.

D. Students with foreign high school and/or college/university transcripts must bring all final, official and complete academic documents with the appropriate seals and apostilles to a campus Admissions and Registration Office.

E. Failure to submit all necessary admissions documents, transcripts or certifications will prevent registration, release of grades, transcripts, and enrollment certification.

Transfer Student Information

A transfer student's transcripts become part of the official student permanent record. Transfer credits are accepted only from regionally accredited colleges and Courses from previous college(s) will be evaluated after the student is admitted to MDC. MDC will determine how many credits, if any, will apply toward a degree. Credit may be granted only for courses in which grades of "D" or better have been earned. The grade of "D" shall transfer and count toward the associate and baccalaureate degrees in the same way as "D" grades obtained by MDC students. See the Standards of Academic Progress in the "Academic Regulations" section of this catalog.

A high school transcript indicating date of graduation may be required of applicants who transfer with fewer than 12 acceptable college credits.

Students with foreign transcripts that are not in English must have an official certified translation made of their credits and submit this translation to the Admissions and Registration Office.

Transient Student Information

Transient students are enrolled at their "home institution" and are enrolled at MDC for a term. Transient students are advised to use Florida's official online student advising system at www.floridashines.org.



Non-Degree Applicants

Non-degree applicants are students who wish to take selected college courses without the intent of completing a college credit certificate, associate or baccalaureate degree program. These students must fill out an application for admission and are not required to provide evidence of high school graduation. Many students attend the College to upgrade their job skills, for transfer credit purposes or for their own personal interest and enjoyment. Non-degree students who wish to enroll in a math or English course or who have earned more than 12 credits as a non-degree student are required to demonstrate college readiness through traditional placement tests or alternate methods. If, at a later time, these students become associate or baccalaureate degree candidates, regular admissions procedures regarding all transcript(s) requirements will apply.

Special Admissions Categories

In each of the following categories, the regular admissions procedures apply:

A. Dual Enrollment – The Dual Enrollment program allows eligible high school, middle school, and home education students in grades 6-12 to simultaneously earn college credit and credit toward a high school diploma. The college credit may be applied toward a postsecondary certificate or degree at a Florida public institution. The Dual Enrollment program provides an opportunity to take challenging courses and accelerate education opportunities. Students who successfully complete dual enrollment courses will save time in obtaining their college degree. They will also save money, as these students are exempt from the payment of registration, tuition and laboratory fees. To enroll in courses through the dual enrollment program, students must demonstrate readiness for college level coursework. Eligibility criteria include both a GPA requirement and assessment of communication and computational skills. The student's school must grant permission for the student to enroll in these courses, thereby agreeing to accept these college courses to meet high school graduation requirements. Students participating in dual enrollment may begin their studies in any term, provided that they complete the dual enrollment admission, advisement and registration procedures. Early admission is a form of dual enrollment through which eligible high school seniors enroll at the college on a full-time basis.

B. The courses these students take are creditable toward a postsecondary certificate or associate degree and meet the requirements for the student´s senior year and high school graduation. Early admission students are required to enroll in a minimum of 24 college credits (12 credits per semester) during their senior year.

C. Early Admission – Academically superior high

school students may attend Miami Dade College in lieu of their senior year in high school. In addition to the requirements for Dual Enrollment above, the applicant for early admission must prepare and present to a high school counselor a comprehensive educational plan justifying early admission. The College will accept for screening only those applicants who have received approval from their principal to apply for early admission. The applicant also must have advance approval from the high school principal to apply college credits toward high school graduation. Normally, a minimum of 24 college credits meets the requirements for the student's senior year and high school graduation.

Readmission to the College

Submit an application for readmission and a new residency statement if any of the following apply:

A. The student did not enroll during the last 12 months (three terms).

B. The student attended other colleges or universities since the last time enrolled at MDC. In this case, official transcripts from those institutions will be required for degree-seeking student.

Developmental Education Courses

With the exception of students who meet the criteria for an exemption from common placement testing https://www.mdc.edu/aet/placement-criteria/default.aspx and developmental education instruction, the State of Florida requires entry level testing for first time in college (FTIC) degree seeking students and students who have not met college level competency either through the completion of developmental education requirements in the Florida College System or have not been awarded credit for college level course work in the area of deficiency. Students will be placed into developmental education courses in the subjects where scores indicate a need for this instruction, along with a Student Life Skills course (SLS). Enrollment in certain other courses may be restricted until all developmental education courses have been completed.

Students may use adult basic education, adult secondary education or private provider instruction as an alternative to traditional developmental education instruction. A student who elects an alternative is prohibited from enrolling in college level courses until the student scores college ready on all sections of the Common Placement Test. If scores on one or more of the subtests require developmental education placement, students must enroll in at least one developmental education course during their first term.

Students who test into developmental education instruction and subsequently enroll in developmental education instruction must successfully complete the required developmental education studies by the time they have accumulated twelve (12) credits of college credit coursework or they must maintain continuous enrollment in developmental education course work each semester until the requirements are completed while performing satisfactorily in the degree.

Florida Board of Education rules limit the number of times a student can take a developmental education or credit courses. Enrollment beyond the 100 percent refund deadline is considered an "attempt," and students can attempt a course only three times.

***Contact Academic Advisement for additional information.**

Admissions to Select College Programs and Programs Leading to Licensure

Admissions to specialized programs, such as those offered by Medical Campus, have specific eligibility requirements due to enrollment limitations imposed by physical facilities, state licensure regulations or other criteria.

Students requesting admissions to such programs will receive specific eligibility requirements from the program. A selection committee determines final approval for placement into these specific programs. The department chair provides notification of admissions into these programs to each individual candidate.

Students who are not selected for a specific program are encouraged to continue their studies in other courses and programs at the College. Advisement offices will assist all such students to determine alternative educational objectives.

A limited number of programs have supplementary admissions requirements. Applicants who have been convicted of a felony and/or subjected to an arrest pertaining to a controlled substance and are applying to a program that leads to licensure may be ineligible for that license. Applicants in this situation should check with the appropriate regulatory/licensing agency to determine whether this would be the case. These students still can be admitted to the program, but need to understand that program completion may not result in licensure or employment. Additionally, there are usually other requirements for licensure, such as physical and psychological criteria, completion of unpaid internships, criminal history verification and other background checks. It is the student's responsibility to understand and meet these requirements.

General Educational Development (GED) Tests and Diploma

An equivalent to a Florida high school diploma may be obtained by successfully completing the General Educational Development (GED) test. A GED holder is

eligible for admission to associate degree programs at the College.

To qualify to take the Florida GED test, individuals must be at least 16 years old and reside in the state. A 16 or 17 year-old must meet College criteria to be eligible to prepare for and take the GED test.

Preparation for the GED test is available at all MDC campuses with the exception of Medical and West. Individuals should contact campus Continuing Education and Professional Development departments for assistance and further information. The GED test covers writing skills, reading skills, social studies, science and mathematics. A fee is charged to take the test battery, and there is an additional charge, although nominal, to retake subtests.

Teacher Certification Information

Before taking courses to meet Teacher Certification requirements, teachers should confirm from their public school district's certification office or the Florida Department of Education's Office of Teacher Education, Certification and Staff Development, that the courses in which they wish to enroll meet specific certification requirements.

College credit courses offered by Miami Dade College, may be used for extension, reissuing, other vocational certificates, reinstatement of certificates and for recency of credit. Additionally, information about courses required for general and professional preparation certification is available at the School of Education or campus Academic Advisement offices.

Florida Residency for Tuition Purposes

Miami Dade College policy concerning Florida residency requirements complies with the laws of Florida s. 1009.21, F.S., and Rule 6A10.044, F.A.C., which are reprinted as follows: s. 1009.21, F.S., determination of resident status for tuition purposes (http://www.mdc.edu/admissions/tuition/florida-residency.aspx).

Determination of resident status for tuition purposes: Students shall be classified as residents or nonresidents for the purpose of assessing tuition in post-secondary educational programs offered by charter technical career centers or career centers operated by school districts, in Florida College System institutions, and in state universities.

A. As used in this section, the term:

1. "Dependent child" means any person under the age of 24, whether or not living with his or her parent, who is eligible to be claimed by his or her parent as a dependent under the federal income tax code.



2. "Initial enrollment" means the first day of class at an institution of higher education.
3. "Institution of higher education" means any charter technical career center as defined in s. 1002.34, career center operated by a school district as defined in 1001.44, Florida College System institutions as defined in s. 1000.21(3), or state university as defined in s. 1000.21(4).
4. "Legal resident" or "resident" means a person who has maintained his or her residence in this state for the preceding year, has purchased a home which is occupied by him or her as his or her residence, or has established a domicile in this state pursuant to s. 222.1(5).
5. "Nonresident for tuition purposes" means a person who does not qualify for the instate tuition rate.
6. "Parent" means either or both parents of a student, any guardian of a student, or any person in a parental relationship to a student.
7. "Resident for tuition purposes" means a person who qualifies as provided in this section for the instate tuition rate.

B. To qualify as a resident for tuition purposes:

1. A person or, if that person is a dependent child, his or her parent or parents must have established legal residence in this state and must have maintained legal residence in this state for at least 12 consecutive months immediately prior to his or her initial enrollment in an institution of higher education.
2. Every applicant for admission to an institution of higher education shall be required to make a statement as to his or her length of residence in the state and, further, shall establish that his or her presence or, if the applicant is a dependent child, the presence of his or her parent or parents

in the state currently is, and during the requisite 12-month qualifying period was, for the purpose of maintaining a bona fide domicile, rather than for the purpose of maintaining a mere temporary residence or abode incident to enrollment in an institution of higher education

2a. However, with respect to a dependent child living with an adult relative other than the child's parent, such child may qualify as a resident for tuition purposes if the adult relative is a legal resident who has maintained legal residence in this state for at least 12 consecutive months immediately before the child's initial enrollment in an institution of higher education, provided the child has resided continuously with such relative for the 3 years immediately before the child's initial enrollment in an institution of higher education, during which time the adult relative has exercised day-to-day care, super vision, and control of the child.

2b. The legal residence of a dependent child whose parents are divorced, separated, or otherwise living apart will be deemed to be this state if either parent is a legal resident of this state, regardless of which parent is entitled to claim, and does in fact claim, the minor as a dependent pursuant to federal individual income tax provisions.

3. A dependent child who is a United States citizen may not be denied classification as a resident for tuition purposes based solely upon the immigration status of his or her parent.

3a. An individual shall not be classified as a resident for tuition purposes and, thus, shall not be eligible to receive the instate tuition rate until he or she has provided such evidence related to legal residence and its duration or, if that individual is a dependent child, evidence of his or her parent's legal residence and its duration, as may be required by law and by officials of the institution of higher education from which he or she seeks the in state tuition rate.

3b. Except as otherwise provided in this section, evidence of legal residence and its duration shall include clear and convincing documentation that residency in this state was for a minimum of 12 consecutive months prior to a student's initial enrollment in an institution of higher education.

3c. Each institution of higher education shall affirmatively determine that an applicant who has been granted admission to that institution as a Florida resident meets the residency requirements of this section at the time of initial enrollment. The residency determination must be documented by the submission of written or electronic verification that includes two



or more of the documents identified in this paragraph, unless the document provided is the homestead exemption in Florida, which is deemed a single, conclusive piece of evidence proving residency.

4. The documents mustinclude at least one of the following:
   - 4a. A Florida voter's registration card;
   - 4b. A Florida driver's license;
   - 4c. A State of Florida identification card;
   - 4d. A Florida vehicle registration;
   - 4e. Proof of a permanent home in Florida which is occupied as a primary residence by the individual or by the individual's parent if the individual is a dependent child;
   - 4f. Proof of a homestead exemption in Florida;
   - 4g. Transcripts from a Florida high school for multiple years if the Florida high school diploma or high school equivalency diploma was earned within the last 12 months;
   - 4h. Proof of permanent fulltime employment in Florida for at least 30 hours per week for a 12-month period.
5. The documents may include one or more of the following:
   - 5a. A declaration of domicile in Florida;
   - 5b. A Florida professional or occupational license;
   - 5c. Florida incorporation;
   - 5d. A document evidencing family ties in Florida;
   - 5e. Proof of membership in a Florida-based charitable or professional organization;
   - 5f. Any other documentation that supports the student's request for resident status, including, but not limited to, utility bills and proof of 12 consecutive months of payments; a lease agreement and proof of 12 consecutive months of payments; or an official state, federal, or court document evidencing legal ties to Florida.
   - 5g. With respect to a dependent child, the legal residence of the dependent child's parent or parents is prima facie evidence of the dependent child's legal residence, which evidence may be reinforced or rebutted, relative to the age and general circumstances of the dependent child, by the other evidence of legal residence required of or presented by the dependent child. However, the legal residence of a dependent child's parent or parents who are domiciled outside this state is not prima facie evidence of the dependent child's legal residence if that dependent child has lived in this state for 5 consecutive years prior to enrolling or reregistering at the institution of higher education at which resident status for tuition purposes is sought.
6. A person who physically resides in this state may be classified as a resident for tuition purposes if he or she marries a person who meets the 12-month residency requirement under subsection (2) and who is a legal resident of this state.
   - 6a. Except as otherwise provided in this section, a person who is classified as a nonresident for tuition purposes may become eligible for reclassification as a resident for tuition purposes if that person or, if that person is a dependent child, his or her parent presents clear and convincing documentation that sup ports permanent legal residency in this state for at least 12 consecutive months rather than temporary residency for the purpose of pursuing an education, such as documentation of fulltime permanent employment for the prior 12 months or the purchase of a home in this state and residence therein for the prior 12 months while not enrolled in an institution of higher education.
   - 6b. If a person who is a dependent child and his or her parent move to this state while such child is a high school student and the child graduates from a high school in this state, the child may become eligible for reclassification as a resident for tuition purposes when the parent submits evidence that the parent qualifies for permanent residency.
   - 6c. If a person who is a dependent child and his or her parent moves to this state after such child graduates from high school, the child may become eligible for reclassification as a resident for tuition purposes after the parent submits evidence that he or she has established legal residence in the state and has maintained legal residence in the state for at least 12 consecutive months.
   - 6d. A person who is classified as a nonresident for tuition purposes and who marries a legal resident of the state or marries a person who becomes a legal resident of the state may, upon becoming a legal resident of the state, become eligible for reclassification as a resident for tuition purposes upon submitting evidence of his or her own legal residency in the state, evidence of his or her marriage to a person who is a legal resident of the state, and evidence of the spouse's legal residence in the state for at least 12 consecutive months immediately preceding the application for reclassification.

7. A person shall not lose his or her resident status for tuition purposes solely by reason of serving, or, if such person is a dependent child, by reason of his or her parent's or parents' serving, in the Armed Forces outside this state.
8. A person who has been properly classified as a resident for tuition purposes but who, while enrolled in an institution of higher education in this state, loses his or her resident tuition status because the person or, if he or she is a dependent child, the person's parent or parents establish domicile or legal residence elsewhere shall continue to enjoy the instate tuition rate for a statutory grace period, which period shall be measured from the date on which the circumstances arose that culminated in the loss of resident tuition status and shall continue for 12 months. However, if the 12 month grace period ends during a semester or academic term for which such former resident is enrolled, such grace period shall be extended to the end of that semester or academic term.
9. Any person who ceases to be enrolled at or who graduates from an institution of higher education while classified as a resident for tuition purposes and who subsequently abandons his or her domicile in this state shall be permitted to reenroll at an institution of higher education in this state as a resident for tuition purposes without the necessity of meeting the 12 month durational requirement of this section if that person has reestablished his or her domicile in this state within 12 months of such abandonment and continuously maintains the reestablished domicile during the period of enrollment. The benefit of this subsection shall not be accorded more than once to any one person.
10. The following persons shall be classified as residents for tuition purposes:
    - 10a. Active duty members of the Armed Services of the United States residing or stationed in this state, their spouses, and dependent children, and active drilling members of the Florida National Guard;
    - 10b. Active duty members of the Armed Services of the United States and their spouses and dependents attending a Florida College System institution or state university within 50 miles of the military establishment where they are stationed, if such military establishment is within a county contiguous to Florida;
    - 10c. United States citizens living on the Isthmus of Panama, who have completed 12 consecutive months of college work at the Florida State University Panama Canal Branch, and their spouses and dependent children;
    - 10d. Fulltime instructional and administrative personnel employed by state public schools and institutions of higher education and their spouses and dependent children;
    - 10e. Students from Latin America and the Caribbean who receive scholarships from the federal or state government. Any student classified pursuant to this paragraph shall attend, on a fulltime basis, a Florida institution of higher education;
    - 10f. Southern Regional Education Board's Academic Common Market graduate students attending Florida's state universities;
    - 10g. Fulltime employees of state agencies or political subdivisions of the state when the student fees are paid by the state agency or political subdivision for the purpose of job-related law enforcement or corrections training;
    - 10h. McKnight Doctoral Fellows and Finalists who are United States citizens;
    - 10i. United States citizens living outside the United States who are teaching at a Department of Defense Dependent School or in an American International School and who enroll in a graduate level education program which leads to a Florida teaching certificate;
    - 10j. Active duty members of the Canadian military residing or stationed in this state under the North American Air Defense (NORAD) agreement, and their spouses and dependent children, attending a Florida College System institution or state university within 50 miles of the military establishment where they are stationed;
    - 10k. Active duty members of a foreign nation's military who are serving as liaison officers and are residing or stationed in this state, and their spouses and dependent children, attending a Florida College System institution or state university within 50 miles of the military establishment where the foreign liaison officer is stationed.
11. Once a student has been classified as a resident for tuition purposes, an institution of higher education to which the student transfers is not required to reevaluate the classification unless inconsistent information suggests that an erroneous classification was made or the student's situation has changed. However, the student must have attended the institution making the initial classification within the prior 12 months, and the residency classification must be noted on the student's transcript. The Higher Education Coordinating Council shall consider issues related to residency determinations

and make recommendations relating to efficiency and effectiveness of current law.

12. Each institution of higher education shall establish a residency appeal committee comprised of at least three members to consider student appeals of residency determinations, in accordance with the institution's official appeal process. The residency appeal committee must render to the student the final residency determination in writing. The institution must advise the student of the reasons for the determination.
13. The State Board of Education and the Board of Governors shall adopt rules to implement this section.

6A - 10.044 Residency for Tuition Purposes

The purpose of this rule is to establish consistent policies for the classification of students as residents for tuition purposes in accordance with criteria set forth in Section 1009.21, F.S.

A. For Initial Determination of Residency: Each student shall submit Form FRD1 (https://www.mdc.edu/admissions/forms.aspx), Florida Residency Declaration for Tuition Purposes to the institution making a residency determination for tuition purposes, electronically or in any other format required or authorized by the institution, and the documentation required by the institution to establish Florida residency for tuition purposes. Verification of whether the student is a dependent child as defined in Section 1009.21(1)(a), F.S., shall be satisfied if the parent declares on the Florida Residency Declaration that the student is eligible to be claimed as a dependent by the parent under the federal income tax code. Form FRD1 is incorporated by reference and made a part of this rule to become effective December 2015. A copy of Form FRD1 may be obtained by contacting the Division of Florida Colleges, 325 West Gaines Street, Tallahassee, Florida 32399.

1. A dependent student who attended a Florida high school for a minimum of three (3) consecutive academic years immediately preceding his or her initial enrollment in an institution of higher education and graduated from a Florida high school or earned a State of Florida High School Diploma as authorized under Rule 6A6.0201, F.A.C., within the last twelve (12) months may use their high school transcript or the official transcript for the State of Florida High School Diplomas evidence of Florida residency. At least one (1) additional document identified in Section 1009.21(3)(c)2., F.S., must be presented evidencing parental legal residence.
2. If a declaration of domicile, pursuant to Section 222.17, F.S., is being used as one of the documents to establish residency for tuition purposes, the date that an applicant shall be deemed as establishing residency for tuition purposes shall be twelve (12) months hence from the date that the Clerk of Circuit Court notes the declaration was sworn and subscribed to them. Nothing in this subsection shall prevent the use of additional documentation as evidence that legal residency was established by other means pursuant to Section 1009.21(1)(c),F.S., as of a date earlier than that established by the Declaration of Domicile.



B. For Residency Reclassification Determination: A student who is classified as a nonresident for tuition purposes may become eligible for reclassification as a resident for tuition purposes by presenting a minimum of three (3) documents identified in Section 1009.21(3)(c)2., F.S., that convincingly demonstrate the establishment of permanent legal residence in Florida other than for the sole purpose of pursuing a postsecondary education. Documentation must demonstrate that the student or, if the student is a dependent, his or her parent, has maintained legal residence in Florida for at least twelve (12) consecutive months immediately prior to the first day of classes for the term for which residency reclassification is sought, except as otherwise provided in Section 1009.21, F.S.

C. The burden of providing clear and convincing documentation that justifies the institution's classification of a student as a resident for tuition purposes rests with the student or, if the student is a dependent, his or her parent. For documentation to be "clear and convincing," it must be credible, trustworthy, and sufficient to persuade the institution that the student or, if that student is a dependent, his or her parent has established legal residency in Florida that is not solely for the purpose of pursuing an education and has relinquished residency in any other state for at least

twelve (12) consecutive months prior to classification. Each institution of higher education may establish submission deadlines for all documentation that will be used to determine residency for tuition purposes.

D. A non-United States citizen may be eligible to establish residency for tuition purposes if evidence is presented verifying that he or she has legal status in the United States, has met the residency requirements of Section 1009.21, F.S., and the person is one of the following:

1. A foreign national in a nonimmigrant visa classification that grants the person the legal ability to establish and maintain a bona fide domicile in the United States.
   a. The following visa categories grant the person the legal ability to establish and maintain a bona fide domicile in the United States: A, E, G, H1B, H1C, I, K, L, N, NATO 17, O1, R, S, T, U, and V.
   b. The following visa categories do not grant the person the legal ability to establish and maintain a bona fide domicile in the United States: B, C, D, F, H2, H3, M, P, Q, and TN. J visa holders are not eligible to establish residency for tuition purposes except as provided in Section 1009.21(10), F.S.
2. A permanent resident alien, parolee, asylee, Cuban-Haitian entrant, or other qualified alien.



3. Pursuant to Section 1009.21(2) (d), F.S., a dependent student who is a U.S citizen may not be denied classification as a resident for tuition purposes based solely upon the immigration status of the parent.

E. Each institution's official residency appeal process established pursuant to Section 1009.21(12), F.S., shall be in writing and prominently displayed on the institution's website.

International Student Admissions

Admission – Miami Dade College is authorized under United States Federal Law, Immigration and Nationality Act, §(101)(a)(15) (F or M) to enroll nonimmigrant alien students. In addition to following the regular admission procedures, international students are required to provide English language placement test scores, such as TOEFL if a non-native speaker, proof of mandatory health insurance coverage, and official bank letter of financial resources to support education costs.

Registration and placement into available courses and programs is dependent on English language proficiency, advisement and counseling, assessment/placement testing and course or program requirements. Academic transcript(s) of secondary school, college, university, technical and other post-secondary schools attended must be certified as official. Transcript(s) in languages other than English must include official certified English translations, authentic verifying statements and signatures.

Deadlines – International applicants should apply at least three months prior to enrollment at the College. International mail, transcript verifications, international money transfers, consular appointments, travel and housing arrangements and advisement/testing requirements all take a great deal of time and may cause delays.

Applications for admission, including all admissions credentials English proficiency examinations (if available), must be received at least 45 days prior to the start of the term in which the applicant plans to enroll.

Deadlines for International Student Admissions

Fall Term.....July 1
Spring Term.....November 1
Summer Term.....March 25

Deadlines and additional information for international students can be found on their website (https://www.mdc.edu/internationalstudents/).

Readmission – Readmission to the College for the international student requires submitting a new application for admission, new official transcripts of postsecondary education attempted since last attendance at Miami Dade College, and an official bank letter of financial resources to support education costs. Transcript(s) in languages other than English shall include official certified English translations, authentic verifying statements

and signatures provided by members of the National Association of Credential Evaluation Services NACES) http://www.naces.org.

English Language Requirements – Miami Dade College courses are taught in the English language. The College will provide English-language training for students who have insufficient English language skills.

English-language test scores determine placement into college courses. Students with TOEFL, IELTS, or PTE scores meeting MDC's English proficiency placement test exemption requirements regardless of the test date are eligible to take the Basic Skills Assessment Test to determine placement in courses leading to an associate degree. Other English proficiency examinations may also be used if the Common European Framework of Reference for Languages (CEFR) level is B2 or higher. Students requiring English-language training may need to attend additional semesters at the College in order to complete all associate degree requirements.

Financial Requirements – All international students must have sufficient funds to pay full college matriculation and nonresident fees, textbooks, living expenses, transportation expenses, health insurance coverage and other incidental expenses while attending college in the United States.

Financial requirements are included with the application for admissions. Documentary evidence of means of financial support must be provided to the College to be issued a Certificate of Eligibility (SEVIS I-20). This evidence is also required by the American Embassy or Consulate when applying for a student visa to enter the United States. Students must have these funds available when they register for classes each term. College financial aid is not available to students on visa. See the "Fees" section in this catalog for details concerning matriculation, non-resident and other fee requirements.

Employment – Visa students in the United States are not allowed to be employed outside the College, unless permission has been granted by the United States Citizenship and Immigration Services (USCIS). On-campus employment may be authorized by the International Student Services advisors.

Health and Accident Insurance Certificate – Prior to registration, international students must purchase the mandatory health insurance policy available in the International Student Services Office. This insurance coverage must continue for the entire period of enrollment at the College.

Duration of Status – International students on a visa are admitted to the United States for the entire time estimated for them to complete their approved program of study as indicated on the SEVIS I-20. Students must fulfill the following conditions to maintain Duration of Status: pursue a full course of study at the educational institution they are authorized to attend, make normal progress, keep a current passport that is valid for at least six months, maintain a valid SEVIS I-20 and not accept off-campus employment without USCIS approval.

Arrival in Miami – International students should arrive in Miami approximately 30 days before the beginning of the first term of enrollment based upon the program start date on the I-20. Students need the time to obtain housing, provide a local address to the College, participate in new student orientation, take English-language and placement assessment tests, obtain advisement and counseling and register for courses.

Housing in the Community – Miami Dade College does not provide or supervise student housing. International students must bring sufficient funds to pay three months' rent in advance (first and last month's rent, plus a security deposit equal to one month's rent). The estimated expense information provided with the application for admission provides important details.

Transportation – International students must provide their own transportation or use public transportation (buses or rail) to travel between home and the campus(es).

School Transfer – Completion of a degree program at the designated educational institution is recommended. International students who wish to transfer to another school must officially do so by requesting a release of their SEVIS record to the school they wish to transfer to and by providing an admission letter. The institution will notify Immigration of the student's school transfer. A student who transfers to a different school without completing this process is considered to be out of status.

Passport Validity – International students on a visa must have and maintain a current passport valid for a period of not less than six (6) months into the future. It is the student's responsibility to meet this requirement.

Full-Time Enrollment – International students are required by USCIS regulations to be enrolled full-time. Students should make satisfactory progress in their approved program each term, otherwise the continuation of study on an International Student Visa may be jeopardized and the Certificate of Eligibility (SEVIS I-20) rescinded. See Standards of Academic Progress in "Academic Regulations" section.

United States Department of Homeland Security Laws and Regulations – It is the student's responsibility to comply with all non-immigrant alien requirements as stated under the United States statutes I.N.A. 101(a) (15) (F); I.N.A. 214(m); IIRIRA 641. The College is required to report to the Department of Homeland Security international students who:

1. Do not register at the College by the first day of the semester.
2. Do not carry a full course of studies.

3. Do not enroll in the minimum required credits of in-person classes.
4. Do not attend classes to the extent normally required.
5. Become employed without authorization.
6. Terminate their attendance at the College.

Visa Student Advisement – Advisors are available at each campus to advise international students concerning academic programs and course objectives. Students on an International Visa should contact the International Student Services advisor each term for a review of the student's progress and for the updates and compliance of immigration regulations.

Admission to Continuing Education (Non-College Credit) Programs and Courses

Miami Dade College, through its Continuing Education Program, offers students opportunities for enrollment in Continuing Workforce Education Training and recreation and leisure courses.

Admission requirements are established by the nature of the particular program or course. A student who plans to register only for continuing education non-college credit courses need not apply for regular College admission.

A. Continuing Workforce Education Courses – These courses are for those students who have had prior employment in jobs related to the enrolled course or are presently employed in a career related to the Continuing Workforce Education course. Students enroll in the courses to upgrade their current skills, for re-employment purposes or to enhance their current employability. For purposes of state certification or registration and updating to meet various professional organization requirements, the College student registration system allows for the award of Continuing Education Units (CEUs) on the student's transcript. These units may be awarded when a Continuing Workforce Education course is completed and the course has been designated for the award of CEUs. Ten contact hours of classroom instruction equal one CEU.

B. Recreation and Leisure Courses – These non-credit courses are self-supporting with the total program costs being paid by the students who are enrolled. There are no state or College funds provided to support these activities. The College offers these courses on demand from students and the community, as space is available. The range of activities and courses are unlimited and are determined by the students enrolled. For further information please consult the Web site at www.mdc.edu/ce

Fees and Refunds

Fees are contingent upon approval of the District Board of Trustees and are subject to change. Special fees may also apply. Important note: Tuition and fee rates are determined annually by state and Board of Trustee processes. The best way to determine current tuition and fee rates is to check on the Miami Dade College Web site, www.mdc.edu/student-financial-services/tuition-fees/, or to check the fee invoice on MDConnect Student Center. The fees listed below are an example – for planning purposes only – of rates for the 2024-25 year only. .

A. Registration Fees 2024-25 – College Credit Courses

1. Florida Residents* Matriculation
   Total: $118.22 per credit
2. Non-Florida Residents* Matriculation
   Total: $402.51 per credit

B. Registration Fees 2024-25 – Baccalaureate Courses

1. Florida Residents*
   Total: $129.89 per credit
2. Non-Florida Residents*
   Total: $535.97 per credit

C. Registration Fees 2024-25 – Career and Technical Education Courses

1. Florida Residents* Matriculation
   Total: $91.08 per vocational credit (Special fees may also apply)
2. Non-Florida Residents*
   Total: $355.31
   per vocational credit

*See Florida Residency for Tuition Purposes section for definitions. Note: Fees are subject to change.

D. Special Fees and Charges

Special Registration Fees:

Some courses carry special fees in addition to the regular registration fees. Special fees in music courses that offer private lessons range from $60 to $300.

1. **$30 Admission Application Processing Fee:** All new college credit students are assessed a $30 non-refundable admission application processing fee. This fee must be paid when you submit the application.
2. **$25 Bachelor's Degree In-Program Admission Application Processing Fee:** All students admitted to an in-program Bachelor's degree are assessed a $25 non-refundable admission application processing fee.
3. **$50 International Student Admission Application Processing Fee:** All new international students are assessed a $50 non-refundable admission application processing fee.
4. **$15 Per Credit - MDC Online Fee:** MDC Online classes have a distance learning fee of $15 per credit. (i.e. $45 for a 3-credit course). To comply with federal requirements, the MDC Online uses secure



login and password to verify the identity of online students. There are no additional student charges associated with verification of student identification.

5. **Resident Students / Non-Resident Students:** Review information about Florida Residency for Tuition Purposes online (https://www.mdc.edu/student-financial-services/tuition-fees/).
6. **Full Cost of Instruction:** Out-of-State fee charged for students repeating courses more than allowed by state law (This is on a third or subsequent attempt).
7. **Examination Fee:** A $30 per credit nonrefundable fee is charged for institutional credit by exam. .

E. Registration Fees – Continuing Education & Professional Development and Non-Credit Courses

1. Continuing Workforce Education (CWE) – Fees are variable and calculated to cover the cost of the course.
2. Recreation and Leisure Courses – Fees are charged to cover all expenses for providing the course.
3. Adult Education Courses, which are considered Adult Basic Ed, Adult High School, GED and VPI course fees:
   a. $30.00 per term for In-State Residenc

Note: All fees are subject to change without notice.

Refunds of matriculation and tuition fees are made only if official drop or withdrawal cards are turned in at the campus Admissions and Registration Office by the published deadlines (see Academic Calendar), or if you drop via the web (and the drop is confirmed) by the deadline. If the student withdraws from the College as a result of administrative action or for the convenience of the College, except for disciplinary reasons, the student is entitled to a full refund of matriculation and tuition fees. If the student is dropped from a class due to cancellation of that class, the student is entitled to a full refund of matriculation and tuition fees.

If the student is withdrawn from a course or courses for disciplinary reasons, the student is not entitled to a refund of matriculation, tuition or special fees.

The admissions application fees (for credit, bachelor's, and international student admissions) are not refundable. Refunds for payments made with cash/checks will be refunded via the MDC One Card. Payments made with Visa/MasterCard/American Express will be refunded to the credit card account

Fee Policy for Repeated Courses

Sections 1009.28 and 1009.285, Florida Statute require the assessment of fees for community college students who repeat a course due to withdrawal or failure. The fee for a third attempt of the same course is equal to 100 percent of the cost of instruction. Since state law prescribes student fees to equal 25 percent of the cost of instruction, the fee for a repeated course is approximately four times

that of an initial attempt.

Sections 1009.28 and 1009.285, Florida Statute and College policy allow one-time exceptions to the increased fees for courses. Students assessed such a fee should consult an advisor for more information (www.mdc.edu/smart).

Excess Hours Advisory

Section 1009.286, Florida Statutes, establishes an "excess hour" surcharge for a student seeking a baccalaureate degree at a state university. It is critical that students, including those entering Florida colleges, are aware of the potential for additional course fees. "Excess hours" are defined as hours that go beyond 120% of the hours required for a baccalaureate degree program. For example, if the length of the program is 120 credit hours, the student may be subject to an excess hour surcharge for any credits attempted beyond 144 credit hours (120% x 120).

All students whose educational plan may include earning a baccalaureate degree should make every effort to enroll in and successfully complete those courses that are required for their intended major on their first attempt. Florida college students intending to transfer to a state university should identify a major or "transfer program" early and be advised of admission requirements for that program, including the approved common prerequisites. Course withdrawals and/or repeats, as well as enrollment in courses nonessential to the intended major, may contribute to a potential excess hours surcharge.

Per Section 1009.286(5), Florida Statute, it is recommended that students who intend to earn credit hours at the institution in excess of the credit hours required for baccalaureate degrees in which students are enrolled meet with their academic advisor.

Refund Policy

- Refunds of tuition and fees are made only if official drop or withdrawal cards are turned in at the campus Admissions and Registration Office by the published deadlines (see Academic Calendar), or if you drop via the web (and the drop is confirmed) by the deadline.
- If the student withdraws from the College as a result of administrative action or for the convenience of the College, except for disciplinary reasons, the student is entitled to a full refund of tuition and fees.
- If the student is dropped from a class due to cancellation of that class, the student is entitled to a full refund of tuition and fees.
- If the student is withdrawn from a course or courses for disciplinary reasons, the student is not entitled to a refund of tuition and fees.
- If the student does not utilize the College parking facility and a parking decal is not obtained, the college will refund the term parking fees after the specified term.
- The admissions application fees (for credit, bachelor's, and international student admissions) and late registration fees are not refundable.
- Refunds for payments made with cash/checks/wire transfers will be refunded via Bank Mobile.
- Debit card payment made at the Bursar's office are refunded via check (USPS mail).
- Payments made with Visa/MasterCard/American Express/Discover will be refunded to the credit card account. The Credit Card Service fee 2.0% is non-refundable.
- Tuition payments made via Third Party agency will be refunded based on the conditions of the Third Party agency*.

Number of Weeks in Term	Number if Class Days Student has to drop class(es) and have all student fess removed
1-3	1
4-5	2
6-10	3
11-14	4
15-16	5
17-20	6
21-23	7
24-26	8
27-29	9
30-32	10

A procedure exists for handling specified exceptions to the refund policy. See the “Petitions Procedure” in the Students’ Rights and Responsibilities Handbook (https://www.mdc.edu/procedures/Chapter4/4018.pdf).

F. Refund Deadlines – Continuing Education & Professional Development Courses

For one-day courses and workshops, the student must have paid in full and must make an official withdrawal at least one day prior to the day of class. For courses meeting for two or more days, the student must have paid in full and must make an official withdrawal at least one day prior to the second class meeting.

A procedure exists for handling specified exceptions to the refund policy. Students should see the Continuing Education chairperson on their campus.

Payment Policy

A. All fees are due and payable in full by the due date posted on the fee invoice. Fees and charges are subject to change without notice. Cash is not to be sent by mail.

B. Payment of Fees by Check - Checks may be remitto Miami Dade College for payment of fees owed. Check payments are also accepted via the MDC Web page. All checks accepted in payment for fees must be drawn on a United States bank and must be payable to the College. If a student submits a check exceeding the amount owed to the College, he or she will not get cash back. The College will issue the refund through Bank Mobile. (https://www.refundselection.com/refundselection/#/welcome/continue).

C. Payment by Credit Card - Miami Dade College will accept American Express, Discover, MasterCard and Visa. There is a 2.0% service fee on each credit card transaction made to the college. Credit card payments can be made over the telephone, and via the MDC Web page, https://www.mdc.edu/student-financial-services/payment-options/online-payments/default.aspx.

D. Payment by an Employer, Company or Other Agency - Miami Dade College accepts payment for tuition and fees from employer, companies and other agencies. .

E. Payment Via Wire Transfer by International Students – Prospective and current international students may utilize the Nelnet Payment Plan as an option for paying tuition and fees. There is a $40 per semester sign-up fee for using the Nelnet Payment Plan. For more information, please visit MDC's Nelnet Payment page (https://www.mdc.edu/student-financial-services/payment-options/nelnet-payment-plan/default.aspx).

F. Payment Via Florida Pre-Paid Tuition Program -The Florida Pre-Paid Tuition Program covers only defined registration, tuition, scholarship and capital improvement fees. Students are required to pay any special fees and other local service fees, which include student service fees, parking fees and technology fees. Students may submit a copy of their Florida Prepaid recipient card or letter to the Admissions office to help establish Florida Residency for Tuition Purposes.

For further information, contact Student Financial Services at asksfs@mdc.edu or (305) 237-2141..

Florida Pre-Paid Tuition Program

The Florida Pre-Paid Tuition Program covers only defined matriculation, scholarship and capital improvement fees. Students are required to pay any special fees and other local service fees, which include student service fees and technology fees.

Students may submit a copy of their Florida Prepaid recipient card or letter to the Admissions office to help establish Florida Residency for Tuition Purposes.

Financial Aid

Student Financial Aid

Financial aid is any grant, scholarship, loan or employment offered to assist a student to meet college expenses. Funding is usually provided by federal and state agencies, foundations, corporations, private donors and/or the College itself. Most financial aid is based on financial "need" as determined by the federal government's system of needs analysis.

The amounts and types of financial aid that a student can receive are determined by federal, state and institutional guidelines. Financial aid is usually offered in "packages," which may consist of a combination of grants, loans, employment and scholarships. Grants and scholarships are regarded as a "gift" and need not be repaid. Loans are usually offered at low interest rates and can be repaid over an extended time period. When aid is offered in the form of employment, the student is paid an hourly rate for work performed (usually minimum wage).

Students who wish to be considered for financial assistance offered by or through the College, including scholarships, must complete and submit the FAFSA (Free Application for Federal Student Aid, see "How to Apply"). The availability of certain types of financial aid is dependent upon the student's immigration status. Financial aid is available for approved and/or certified credit and vocational certificate programs of study.

Philosophy of Financial Aid

The objective of the student financial aid program at Miami Dade College is to provide financial assistance to students who need assistance in funding their educational goals. Financial aid officers are trained and available to counsel and assist students and parents seeking additional or alternative sources of aid.

Prospective students and parents are strongly encouraged to contact the Financial Aid Office at any one of our campuses to obtain additional information regarding financial aid opportunities.

What is Financial Need?

Financial need is defined as the difference between the cost of education and the amount the student (and parents) can be expected to contribute to offset educational expenses.Financial need is based on federal regulations and information provided by the student and/or student's family on the Free Application for Federal Student Aid (FAFSA, see below).

How to Apply

To be considered for most types of financial assistance, a student must complete the Free Application for Federal Student Aid (FAFSA). The FAFSA is available online at https://studentaid.gov. The application process begins Oct. 1 for the academic year that begins in August. The results of the federal analysis are transmitted electronically to the College and are also sent to the student in the form of a Student Aid Report (SAR) via email or regular mail.

Students should carefully read all notifications and communications from the U.S. Department of Education, Federal Student Aid offices and in a timely manner, provide information to the College or on the FAFSA, if the information originally submitted has to be corrected.

Miami Dade College reserves the right to request supplemental information from parent(s), guardian(s), spouse and/or student as required by the financial aid staff to assess the need of the student. Students who are eligible to receive outside educational assistance such as Veterans Administration benefits and vocational rehabilitation assistance are expected to apply for this assistance through the appropriate agencies..

Verification

The Department of Education selects applicants for verification randomly, to determine the accuracy of the information provided on the FAFSA. If selected for verification, a student will be asked to provide additional information, such as but not limited to federal, tax return transcripts. Student files will not be processed until all required documentation is received, verification is complete and all corrections have been made.

Reapplying

Financial aid is not automatically renewed each year. To be considered for financial assistance from one year to the next, all students must reapply. Since the amount and type of aid are based upon the family's financial situation each year, it is quite possible that financial aid awards may change from one year to the next.

Basis on Which Financial Aid is Granted

The amount of financial assistance a student receives is generally determined by the need of the applicant, the availability of funds from federal, state, institutional and private sources, as well as the order in which the applications were completed (first-come, first-served basis).

Students receiving federal financial aid are required



to achieve and maintain an acceptable level of academic progress to receive financial aid. Specific eligible categories are posted on the Financial Aid Web page, and information is available in the Financial Aid Office.

Who Qualifies for Financial Aid

To be considered for most need-based assistance, you must meet the following basic eligibility requirements:

- Demonstrate financial need
- Be a U.S. citizen or eligible non-citizen
- Be registered with selective service, if required
- Not be in default on a previous student loan or owe a repayment on previous federal financial aid received at any institution
- Be enrolled at least half-time in an eligible program of study (some aid is available only to full-time students)
- Maintain satisfactory academic progress.
- Additional requirements may apply depending on the financial aid awarded to you.

Refunds and Repayments (Return to Title IV)

Federal regulations mandate that financial aid recipients who drop all courses or officially withdraw from the College before completing 60 percent of their enrollment period for the semester may be liable to repay a portion of the federal aid disbursed. The amount of the return is calculated using a federal formula that depends on the date the student ceased attendance. A student who owes a repayment will not be eligible for additional financial aid until the repayment is made in full.

Miami Dade College Student Assistance Programs

Scholarships and Grants

Scholarships and grants are available annually for students who require additional financial assistance beyond that received from federal and state sources. College funds for scholarships and grants are provided by businesses, clubs and organizations, agencies and from individual friends of the College through the Miami Dade College Foundation Inc. The primary criterion on which grant and scholarship recipients are selected is financial need. However, academic achievement is strongly considered during scholarship recipient selection. A limited number of grants are made available annually for service to the College and to students who may not be eligible for other types of financial assistance. Students who complete the FAFSA will be considered for a College grant. Students must complete an MDC Scholarship Application online at http://www.mdc.edu/financialaid/scholarships/default.aspx to be considered for a scholarship. Scholarship candidates may be required to submit additional documentation and/or information.

Tuition Payment Plan

A Tuition Payment Plan may be offered to students who are unable to pay the full amount of their schedule. Students should review their fee invoice for the term to determine the payment due date and to apply for the Tuition Payment Plan.

Tax Help for Educational Expenses

The Taxpayers Relief Act of 1997 offers several tax credits and deductions for educational expenses. For more information regarding these programs, go to the IRS webpage at: www.irs.gov.

Veteran Affairs Educational Program

The Veteran Benefit Program is designed exclusively for providing educational assistance to veteran of the United States armed forces and eligible dependents. Miami Dade College is an approved institution for the education and training of veteran and eligible dependents under all public laws now in effect. The College assists veteran and eligible dependents wishing to receive V.A. educational benefits. Personal and academic counseling, registration fee deferments, tutorial assistance and V.A. Work-Study programs are available. Veteran are encouraged to contact any campus Registrar's Office to obtain further information.

To ensure compliance with Title 38, United States Code (USC), Section 3679(e), our institution allows eligible students to attend or participate in educational programs, even if payment from the Department of Veterans Affairs (VA) is delayed. This procedure applies to students receiving Chapter 31 (Veteran Readiness and Employment) or Chapter 33 (Post-9/11 GI Bill®) benefits, provided they submit a Certificate of Eligibility (COE). Students will not face penalties such as late fees, denied access to classes or facilities, or be required to borrow additional funds due to delayed VA payments. They may attend and participate in their programs for up to 90 days after tuition and fees are certified, or until the VA payment is received, whichever comes first. Students are required to submit the COE by the first day of classes and may be asked for additional documentation. If VA payments are not received within the expected period, students must agree to payment terms. Non-compliance with these requirements may result in the institution pursuing collection actions for unpaid balances in accordance with its financial policies.

Other Sources of Financial Assistance

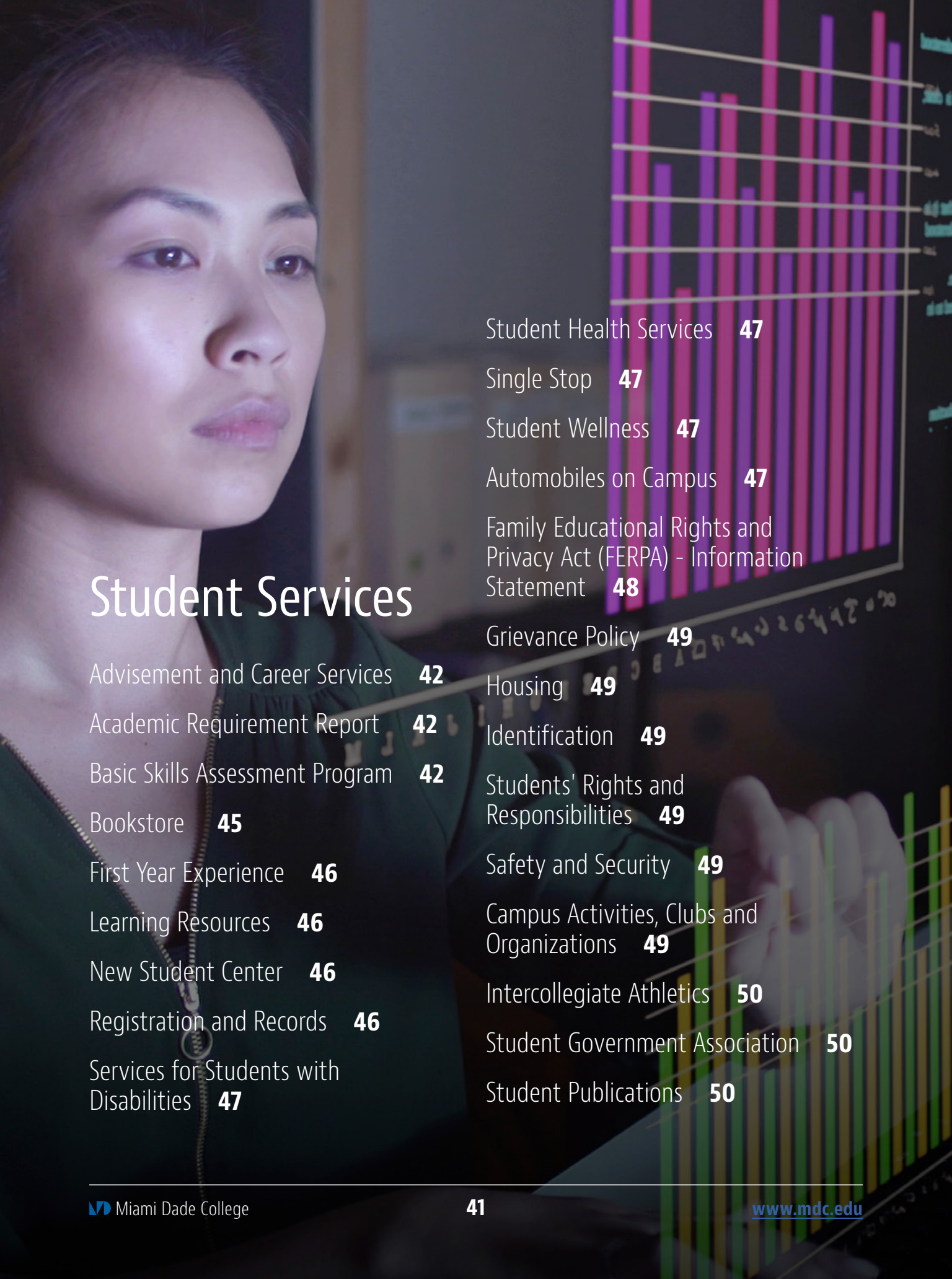
Benefits for the Disabled – The state of Florida provides funding for the purchase of special equipment and services for all persons with disabilities enrolled in public postsecondary institutions.

Accessing the Financial Aid Office

- Counseling – Financial Aid counselors are available at all MDC campuses, on a walk-in basis, to assist students.
- Online – You can access the Financial Aid Office webpage at www.mdc.edu/financialaid to obtain more detailed information about financial aid programs, procedures and to check the status of your application and financial aid award.
- Email Communications – Regardless of the campus you attend, you can communicate with the Financial Aid Office via email at: finaid@mdc.edu

Student Complaint Procedures

Prospective or current students may voice their concerns about college rules, regulations, procedures or experience. Students must first voice concerns to the department staff and supervisor. Students who are unable to resolve any concerns on their own, may contact the Federal Student Aid Ombudsman via https://studentaid.gov/feedback-ombudsman/disputes/prepare.



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STUDENT SERVICES

Advisement and Career Services

Advisement and Career Services support all student populations by facilitating an effective decision-making process regarding educational, transfer and career goals, advisors promote appropriate course selection and assist students with referrals to internal and external resources and support services.

Advisement and Career Services supports first-time-in-college and non-traditional student populations by offering office hours until 7:00pm Monday to Thursday and until 4:30 on Fridays at all of our campuses which facilitates access to the full scope of services provided by advisors even for those students attending classes during non-traditional times. Access to advisors is also available via phone and email.

All first-time-in-college, direct-entry students from high school will be assigned an advisor at their mandatory orientation session (Shark Start) after admission to the College. At that time, students and their assigned advisors will begin to chart an appropriate choice of courses based on the student's academic pathway, placement scores, high school transcripts, non-cognitive factors, and transfer institution of choice.In addition, advisors provide students assistance with career exploration, skills assessments, and guidance about how to best match student's skills and abilities with the right career path. Once a career path is chosen, advisors will provide important information regarding required courses, program information, graduation status and much more.

All students are encouraged to see an advisor after admission to the College, after assessment testing has been completed (for those who require testing) and before first term registration. During these advisement sessions, the student and the advisor can chart an appropriate choice of courses based on the student's chosen pathway. Conferring of graduation eligibility at this time may be crucial to a student's success in meeting their career goals.

During enrollment at Miami Dade College, students are encouraged, and sometimes required, to see an advisor when they encounter academic problems or contemplate a change in educational goals. In addition to helping students chart their educational and professional careers, advisors work with students to resolve problems affecting academic performance. Students may be referred for testing or to community agencies when appropriate, as a means to aid decision-making.

The Advisement and Career Services department also assists students with career planning, resume building and interviewing skills, and other employment needs. Career-related events, including seminars, career exploration workshops, and job and college fairs, are scheduled throughout the academic year. Students are also provided with guidance and information about transfer options and transfer assistance in preparation for the completion of their degree at the College. Transfer resources, including college catalogs, scholarship information and information on the College's Articulation Agreements with local, in-state and out-of-state institutions are available through the Department and on the MDC website. The department offers a variety of online tools that assist students with job placement, through a feedback system on resumes, cover letters, and interviewing skills assessments.

Academic Requirement Report

The Academic Requirement Report is a tool used for advising purposes only. The catalog and/ or the MDC website should be consulted for program/degree requirements.

Basic Skills Assessment Program

In an effort to provide more effective educational services for students, the College has established a Basic Skills Assessment Program. Through this program, the student can demonstrate readiness and the College can identify 's academic strengths and weaknesses in reading, writing and mathematics.

Results from the assessment are used to advise students on how best to take advantage of their strengths. Regarding weaknesses, assessment results are used to guide a student into courses designed toward improvement in the respective discipline.

MDC administers the ACCUPLACER Next-Generation and the Florida Postsecondary Education Readiness Test (PERT) as placement testing options for students. Both are not timed, and each consists of three sections: reading, writing and mathematics.

With the exception of students who meet the criteria for an exemption from common placement testing and develop mental education instruction, the State Board of Education (SBOE) requires demonstration of readiness for degree seeking students and students who have not met college level competency either through the completion of developmental education requirements



in the Florida College System or have not been awarded credit for college-level coursework in the area of deficiency. Methods for assessing communication and computation skills may be through any combination of approved common placement tests or alternate methods. Non-exempt students whose assessment results indicate a need for developmental education shall enroll in developmental education in the area of the deficiency. Students whose native language is not English may be required to take another test to measure their English proficiency and subsequently matriculate through EAP to demonstrate readiness. Students with documented disabilities are provided appropriate testing modifications or accommodations. The SBOE also requires institutions offering Postsecondary Career and Technical Education and Adult Education programs to test students pursuing these programs. Miami Dade College (MDC) may accept official test scores from approved academic institutions and approved regional workforce boards.

If a student presents valid test scores or high school course grade criteria that meet or exceed the state minimum score and/or grade requirements, he or she does not have to take the placement test in the related sub test area. All test scores presented must have been obtained within the past two years and course grades are limited to currently enrolled secondary school students and students who graduated from a high school within a two (2) year period. To find out what minimum scores or course grade a student needs to be exempt from taking the placement test, or for other reasons why a student may not be required to take the placement test, students are asked to contact the campus Testing and Assessment Department. This information may also be acquired by visiting the Testing and Assessment Web site, accessed from MDC's Homepage (www.mdc.edu) by clicking on 'Admissions', then "Testing and Assessment Information. "If a student does have to take the placement test, he or she should utilize the resources available on the collegewide Test Preparation website, as well as workshops offered through Community Education and other departments, before he or she takes the placement test PERT. If a non-exempt student's scores on one or more of the subtests of the placement test fall below minimum passing scores established by the SBOE, he or she must enroll for at least one developmental education course during their first term. Further evaluation may be conducted in classes, and developmental education course placement changed, based on the results of the additional assess-



ments. If a student meets a minimum score but is identified as likely to benefit from a developmental education course, he or she may enroll in such a course. A student who entered 9th grade in a Florida public school in the 2003-2004 school year, or any year thereafter, and earned a Florida standard high school diploma or a student who is serving as an active duty member of any branch of the United States Armed Services shall not be required to take the common placement test and shall not be required to enroll in developmental education instruction in a Florida College System institution. However, a student who is not required to take the common placement test and is not required to enroll in developmental education under this paragraph may opt to be assessed and to enroll in developmental education instruction, and the college shall provide such assessment and instruction upon the student's request. For additional information please contact an academic advisor.

Students without sufficient English-language proficiency to take the PERT are required to take an MDC approved English proficiency placement test (ACCUPLACER ESL) and be placed in designated English for Academic Purposes (EAP) courses. EAP students who have satisfied the 0200 level or above, either by EAP course completion or ACCUPLACER ESL placement, should be encouraged to take the mathematics subtest of the MDC Placement Test at any time in Levels 0300, 0400, or 0500. They must take it no later than the last withdrawal date of the EAP 1600 Level. Continuing EAP students in the 0400 level or above in all four skill areas (Reading, Writing, Grammar, or their equivalents) may opt-in to take the reading and writing subtests of the MDC Placement Test after the last withdrawal date of the term for advisement into advanced EAP levels or ENC 1101 in the following term. New incoming students whose ACCUPLACER ESL subtest scores in Reading, Grammar Usage, and WritePlacer ESL place them into the EAP 1500 or 1600 levels may also opt-in to take the MDC Placement Test prior to registering for EAP courses.

The SBOE requires agencies offering Post-secondary Career and Technical Education programs (CTE) to assess the basic skills level of students entering programs of 450 or more contact hours. MDC offers the Tests of Adult Basic Education (TABE) for these career certificate-seeking students. The minimum passing scores vary among the career certificate programs, so a student must check with his or her advisor for these scores. A student must take the TABE within the first six weeks of admission into the program. Academic support labs are available to prepare students to take the TABE. Students seeking entrance into MDC's School of Justice are exempt from the TABE requirement, but they are required to pass the FDLE Basic Abilities Test Exam (BAT). If a student has any questions regarding the BAT, he or she should contact the School of Justice. Students may also visit the FBAT Web site, accessed from MDC's School of Justice homepage (https://www.mdc.edu/justice/default.aspx) by clicking on 'Assessment Center,'

and then FBAT: Florida Basic Abilities Test (https://www.mdc.edu/justice/fbat/) in the Current Services and Programs section.

If a student is enrolling in an Adult General Educational program, he or she also must take the TABE. Adult Education students without English proficiency are given the College approved alternate for placement into appropriate Adult English for Speakers of Other Languages (ESOL) program courses. If a student has any questions regarding the TABE, including exemption from taking the test, he or she should contact the campus Testing and Assessment Department. This information may also be acquired by visiting the testing and assessment information Web site, accessed from MDC's homepage (www.mdc.edu) by clicking on Admissions then, 'Testing and Assessment Information.'

Bookstore

Bookstores are located on all of the campuses. Hours vary during the term and at each location, with longer hours in the early weeks of the semesters. Locations and phone numbers are (https://www.mdc.edu/bookstore/):

Padrón Campus Bookstore
Phone: 305-237-6019
701 SW 27th Ave, Room #6017
Miami, FL 33135

Entrepreneurial Education Center
Phone: 305-237-1247
6300 NW 7th Ave, Room #1215
Miami, FL 33150

Hialeah Campus Bookstore
Phone: 305-237-8806
1780 W 49th St, Room #1103
Hialeah, FL 33012-2918

Homestead Campus Bookstore
Phone: 305-237-5042
500 College Terrace, Room #F102
Homestead, FL 33030-6009

Kendall Campus Bookstore
Phone: 305-237-2361
11011 SW 104th St, Room #8105
Miami, FL 33176-3393

Medical Campus Bookstore
Phone: 305-237-4178
950 NW 20th St, Room #1180
Miami, FL 33127-4622

North Campus Bookstore
Phone: 305-237-1247
11850 NW 27th Ave, Room #4101
Miami, FL 33167-3418

MDC Online Fulfillment Center
Phone: 305-237-1455
11850 NW 27 Ave
Miami FL 33167

West Campus Bookstore
Phone: 305-237-8953
3800 NW 115th Ave
Doral, FL 33178

Wolfson Campus Bookstore
Phone: 305-237-3236
500 NE 2nd Ave, Room #7174
Miami, FL 33130

The best time to purchase textbooks for an upcoming term is at the beginning of classes. If a student has a schedule and/or syllabus, he or she can purchase textbooks before the class begins. When purchasing textbooks, a student should bring his or her schedule as the bookstore is organized alphabetically by course abbreviation and by reference number (six-digit code identifying the class). If a student cannot locate textbooks, the professor's name, or reference number on the shelf tags, the student should ask for assistance at the customer service desk. The store's textbook manager and sales staff can assist in answering questions. If a student purchases a textbook before attending class and later finds that the textbook is incorrect, it can be returned if the student has the original cash register receipt. The textbook must also be in the original shrink-wrap (if applicable), and in the exact condition as when purchased. The refund policy and dates for each term are posted in all of the bookstores and on the cash register receipts. If a student needs any information concerning the refund policy and dates, the student should contact the campus bookstore at the phone number listed above. During the refund periods, new and used textbooks will be fully refundable when returned in the same condition as purchased. If a textbook is not in the same condition as originally purchased, the textbook will be returned at 25 percent markdown from the original price. If the student does not have the original receipt the book can be sold back to the bookstore at buyback. Shrink-wrapped packages are nonrefundable if opened; however if the student has all of the components of the package then a return may be done for a 25 percent markdown from the original price.

Any textbook purchased during the last week of classes or during final exams is not fully refundable, but may be sold back at buyback. If a student has textbooks that are no longer needed, he or she can sell the books back to the bookstore at anytime of the year. The price for the buyback textbooks will vary, depending on the level of demand for the upcoming term and the inventory in the store. If the bookstore has a need for a textbook, a student can receive up to 50 percent of the new price whether it was purchased new or used. Another feature the bookstore offers is online ordering of textbooks at www.efollett.com. Students can either log in directly to www.efollett.com or upon registering for a class on the MDC website, proceed through Book Now



with a link to efollett.com to purchase the textbooks required for their class. By selecting the state, institution and classes, as well as purchasing information, a student may order textbooks and have them delivered directly to his or her home or have them ready for pick up at the bookstore on campus.

First Year Experience

Effective Fall 2014, First Time In College (FTIC) AA degree seeking students must enroll in SLS1106 - First Year Experience Seminar (or approved equivalent). The students will learn skills which will assist in successful transition into college.

Learning Resources

Learning Resources houses the Library, Computer Courtyard, and various multi-disciplinary tutoring centers. Students have access to comfortable study spaces for individual or collaborative learning with librarians and other academic experts within reach. At each campus, students will find an extensive collection of books (both academic and bestsellers), periodicals, videos, and mobile devices such as laptops and headsets.

Additionally, students have access to eBooks, streaming videos, and an large selection of journal and magazine articles available online. All Learning Resources computers are equipped with the latest educational software applications required by faculty at MDC. All items within the collection are available to check out at no cost to students and staff.

Librarians are available to assist students during the research process both on a one-on-one basis and in the classroom. In addition, Learning Resources works closely with the Academic Disciplines to provide tutoring in a wide variety of subjects. Supplemental instruction sessions from embedded tutors, learning assistants, and educational technologists can also extend the tutoring services into the classroom upon faculty request. Students can take advantage of hundreds of educational workshops designed to enhance valuable skills while in college, and later in the job place. All library and instructional support services are available on campus and online.

For more information, visit https://www.mdc.edu/learning-resources/

New Student Center

The New Student Center is the first point of contact for prospective and new students who are attending college for the first time or who are transferring from another institution. Prospective students are encouraged to meet with a pre-admission advisor to obtain information about degree and vocational program options, admissions requirements, assistance with the admissions process and the steps a new student will take from admission through course registration.

The New Student Center conducts orientation sessions prior to each semester. All new degree-seeking students are required to participate in an orientation program. The objective of the new student orientation sessions is to provide practical information to assist new students in transitioning to college life. The New Student Center at the Medical Campus (MC) assists students in pre-select programs as they transition from other campuses. Staff help guide students with course selection, the development of educational plans, and the application process for the selective admission programs at MC.

Registration and Records

Registration is held each term on the dates scheduled by the College Registrar's Office. Students may register online by going to the College's Homepage (www.mdc.edu/registration). Students may also register for courses in person at each campus Admissions and Registration. The College Registrar's Office is the designated custodian of all official academic records. The College Registrar's Office maintains official student transcripts, processes final grades at the end of each term and updates student records with address, name and approved grade changes. The campus Admissions and Registration offices maintains official student transcripts, processes final grades at the end of each term and updates student records with address, name and approved grade changes. The Collegewide Transcript Processing Services area provides official copies of student transcripts to students, or to institutions or agencies upon request from students. The College also participates in the electronic transmission of student transcripts (to other participating institutions). Students may request academic transcript online at www.mdc.edu/transcripts.

Services for Students with Disabilities

ACCESS – A Comprehensive Center for Exceptional Students' Services

Federal and state laws and regulations guarantee students with disabilities equal access and equal opportunity in post-secondary education. The College provides auxiliary aids and services to assist students with disabilities in achieving equal opportunity. These services include, but are not limited to, assistance with registration, advisement, financial aid, and sign language interpreting services, note takers, adaptive or assistive technology, testing accommodations and more.

The ACCESS department works to promote awareness of disability issues, federal and state regulations, and College procedures that encourage accessibility and inclusion. Under certain circumstances, ACCESS can arrange for program modifications, course substitutions, and waivers, in accordance with the College's Manual of Procedures.

Students may find out about additional services and eligibility by contacting the ACCESS office or representative in the Division of Student Services at their campus and visiting on line at (www.mdc.edu/ACCESS/).

Student Health Services

Miami Dade College is not legally or financially responsible for medical care and does not provide the services of a physician on any campus. At the time of application, each student should provide, on the appropriate line of the application form, the name of a person to contact in an emergency. If that contact person changes while the student is attending the College, the student should update that information through the Registrar's Office. Students should carry emergency information at all times, as well as any medical insurance card(s).

Single Stop

Single Stop is a one-stop source for students and immediate family members to be connected to public benefits and local resources. Single Stop offers students a wide array of services including benefits screening, free tax preparation, financial coaching, Food Pantry for Students and health insurance assistance (https://www.mdc.edu/singlestop/).

Student Wellness

Miami Dade College offers a range of resources to help students emotionally and physically navigate the demanding pace of modern life. From food pantries to financial planning to mental health counseling, Miami Dade College can help students get the help they need (https://www.mdc.edu/student-wellness/)



Information and Policies

Automobiles on Campus

Student and faculty parking areas are designated on each campus. The MDCard may be required for access to a lot or a garage. All vehicles must have a valid MDC parking decal prominently displayed on the rear bumper or left rear window. Parking decals are good for one year. Failing to register a vehicle may result in the denial of parking privileges or other enforcement measures. Parking decals for motorcycles may be obtained from the Student Life office (students) or Public Safety Department (employees) at the preferred campus. For more information, visit www.mdc.edu/parkingdecal.

Miami-Dade County and municipal police enforce traf-

fic and parking regulations on and around each campus. Citations are issued for traffic and parking irregularities; violators may be towed at their own expense.

Although campus security officers patrol parking areas, the College assumes no responsibility for the care or protection of a vehicle or its contents at any time. If a vehicle must be left on campus overnight, students should notify the Campus Security Office.

Visitor parking policies vary by campus, so visitors should phone ahead for information. Visitors parked in unauthorized spaces may be subject to traffic citations and towing at the owner's expense.

Kendall Campus has a multistory parking facility with more than 700 student, staff and visitor parking spaces, as well as a number of parking lots. The parking garage is open Monday through Friday from 6 a.m. to 11 p.m. and Saturday from 6 a.m. to 6 p.m. The facility is closed on Sundays. During some special events, visitors may obtain parking passes in advance from the Campus Information Booth, from Campus Public Safety (located on the south side of Building 5000), or from the event's sponsor.

Wolfson Campus has a multistory parking garage open to students, faculty and staff. The garage, also known as Building 7, is located between First and Second avenues and between Fifth and Sixth streets. Entrances are on Fifth Street, Sixth Street, and First Avenue. Students must use the MDCard to gain access. Hours of operation vary, so students need to check with security if planning to leave a car after hours.

Medical Campus operates a parking lot at Northwest 10th Avenue and Northwest 20th Street. This lot is equipped with electronic control arms monitored by Campus Public Safety Officers from 6 a.m. to 10:30 p.m. Monday to Thursday, and 6:30 a.m. to 6 p.m. Fridays, Saturdays and Sundays. Handicapped parking is available east of Building 2. Limited shuttle service is provided to and from the Culmer MetroRail station from 6:30 a.m. to 10:30 a.m. and from 3:30 p.m. to 5:30 p.m., Monday through Friday. Dropoff and pickup at the Campus are north of Building 2. The driveway is posted as a "NO PARKING" and "TOWAWAY" zone. Vehicles parked illegally in this area will be towed. Campus Public Safety enforces traffic laws on campus. Identification is verified before entry to the lots.

Homestead Campus provides visitor, student, faculty and staff parking in designated areas. The College and the Homestead Police Department enforce traffic and parking regulations on the campus.

Padrón Campus has a multistory parking garage and several offcampus facilities for students. These facilities offer parking free of charge and access is gained upon presentation of an MDCard (or a class schedule with the Registrar's indication that the student has paid tuition). Direct access to campus buildings is available from the parking garage.

North Campus has numerous lots, though some are accessible only by faculty and staff.

West Campus has numerous parking lots located around the building.

Family Educational Rights and Privacy Act (FERPA) - Information Statement

Release of Student Information

Miami Dade College has a longstanding commitment to protect students' rights and privacy of information. This commitment will continue as a matter of College practice. The College complies with the provisions of the federal Family Educational Rights and Privacy Act (FERPA), State of Florida law, and Florida State Department of Education, Florida College System rules. These federal and state requirements concern accessibility and confidentiality of student records. Miami Dade College Procedure 4085, Release of Student Information, provides pertinent details concerning classifications of student records and access and release provisions. The College procedure is available to students, faculty, administration and staff in the Dean of Student Services Office, as well as other offices and departments at each campus. In addition, the complete procedures are published in the Student's Rights and Responsibilities Handbook.

In accordance with U.S. Public Law 93380 (FERPA), students at Miami Dade College have the right to inspect their educational records and to correct such records if warranted. All student records are open for inspection and review by the student unless he or she waives this right. These records are protected from release of information without written consent. The parent(s) of a dependent student, as defined in Title 26 U.S.C. §152 of the Internal Revenue Code, also has the right to inspect records which are maintained by the College on behalf of the student.

Directory Information, which may be made public, includes:

1. Student name,
2. Major field of study,
3. Participation in officially recognized activities and sports,
4. Weight and height of members of athletic teams,
5. Degrees, honors and awards received,
6. Enrollment status (fulltime, halftime, not enrolled).

The office of the Dean of Student Services or designee will release this information only after the requestor has demonstrated a legitimate need to have such information. Students not wishing the dissemination of Directory

Information must complete a statement in the Registrar's Office, otherwise Directory Information may be disclosed for legitimate purposes by the College.

Additional details concerning the release of student information, including exceptions, challenges to the content of records and related matters, may be obtained by consulting the Dean of Student Services, the Registrar's Office or designee at any campus.

FERPA information can be found on our website at:www.mdc.edu/main/ferpa/

Grievance Policy

In compliance with federal and state requirements, the College has an institutional grievance policy for students alleging discriminatory practices or sexual harassment. The initial contact point for students to lodge a claim of discrimination or sexual harassment is the Office of the Dean of Student Services.

Housing

Miami Dade College does not provide or supervise housing facilities. Out-of-area students should arrive with sufficient time in advance of registration to locate suitable housing.

Identification

The MDID is the official identification card for students and employees. Students are required to wear visibly and present their MDID when requested by authorized College officials. Any misrepresentation, alteration or misuse of identification is prohibited. This card will provide access to Learning Resources, laboratories and parking lots. Students with questions should contact the Student Life Office at any campus for details.

Students' Rights and Responsibilities

The Students' Rights and Responsibilities publication, available to all students, sets forth the rights of students with corresponding responsibilities. This document details the relationship between student and College. The document covers protection in academic pursuits and privacy of records, sets forth the conditions for responsible behavior on the campus and lists the various appeal mechanisms and grievance procedures available to students.

The section on student discipline complies with Rule 6A14.56, F.A.C., and §240.132, §240.133 and §877.13, F.S. This section concerns control and discipline of college students. The document complies with relevant federal regulations such as the award of financial aid, protection of privacy of records and equal access/equal opportunity. For more information, visit https://www.mdc.edu/procedures/Chapter4/4009.pdf and http://www.mdc.edu/rightsandresponsibilities/.



Safety and Security

As required by the Federal Student Right to Know Legislation, the College publishes the annual crime statistics for each campus. These statistics may be obtained at the campus Public Safety Office.

Campus Activities

Campus Activities, Clubs and Organizations

There are many opportunities for students to get involved in campus activities. Each year, outstanding artists, musicians, singers, dancers, lecturers and other performers share their talents and expertise with students. Student Life committees, composed of representatives from student groups, assist with the establishment of these programs and the policies governing these activities. In addition, there are on-campus art exhibits, dance programs, music concerts and theatrical productions presented by different campus departments.

Students have the opportunity to join 85+ clubs chartered on the various campuses. The best time to find out about clubs and organizations on each campus is at the beginning of the semester, when most campuses hold special events to publicize the various clubs. Students may also visit the campus Student Life Department to find out how to get involved. All students are encouraged to participate actively in clubs and organizations.

North Campus Pen Players and Kendall Campus Studio Theatre players present several full-length theatrical productions each year and tryouts are open to all students. In addition, there are several programs of experimental one-act plays produced and directed by students. The New World Players give performances in English, both on and off campus. Interested students should contact the campus theater department.

The College bands, choruses and ensembles are open to all students, and in some cases, students can receive college credit for participating in a music group. These groups present numerous concerts each year, both on and off campus, and participate in various College activities. Students can check with each group's director to find out if they need to audition to join. The campus music department is the best resource for information on music groups.

Intercollegiate Athletics

Students with outstanding athletic abilities may try out for one of the following intercollegiate sports teams: men's, basketball or baseball; women's, basketball, volleyball or softball. Miami Dade College teams, all known as The Sharks, compete at the highest level of the National Junior College Athletic Association. Each year, Shark teams travel around the state to compete against other college teams, and they consistently finish in the higher rounds of conference and state events. Sharks also have the opportunity to compete for the National Junior College Championship, and have the chance to be selected for NJCAA AllAmerican teams and other special awards. MDC offers firstrate athletic facilities, training and conditioning services and a talented coaching staff. For information on trying out for an athletic team, contact the college director of athletics, based at Kendall Campus.

Student Government Association

Students are given an opportunity for selfgovernment. A student-run governing body works with faculty and administration to formulate appropriate policies. The Student Government Association (SGA) provides an opportunity for students to gain the leadership skills vital in today's competitive job market.

Student Publications

The Reporter is the student newspaper at Miami Dade College. It was launched on Oct. 4, 2010, features 16 pages printing on a biweekly schedule and has a circulation of 10,250 per print cycle. It is augmented by a website with video and audio content.

The Reporter is distributed collegewide and has newsrooms at the North, Wolfson and Kendall campuses:

North Campus Bureau 11380 N.W. 27th Avenue, Room 4209, 3052371255

Kendall Campus Bureau 11011 S.W. 104th Street, Room M239, 305237 2323

Wolfson Campus Bureau 300 N.E. Second Avenue, Suite 1610, 3052373477.

The Antidote Newsletter at Medical and the Urbana at Padrón are under the guidance of advisors who work with student editors and staff members. These publications serve as the media for student expression on matters involving the curricular and extracurricular activities of the College. These publications also provide training for those interested in journalism.

The Students' Rights and Responsibilities Handbook provides students on each campus with basic information about collegewide policies and procedures.

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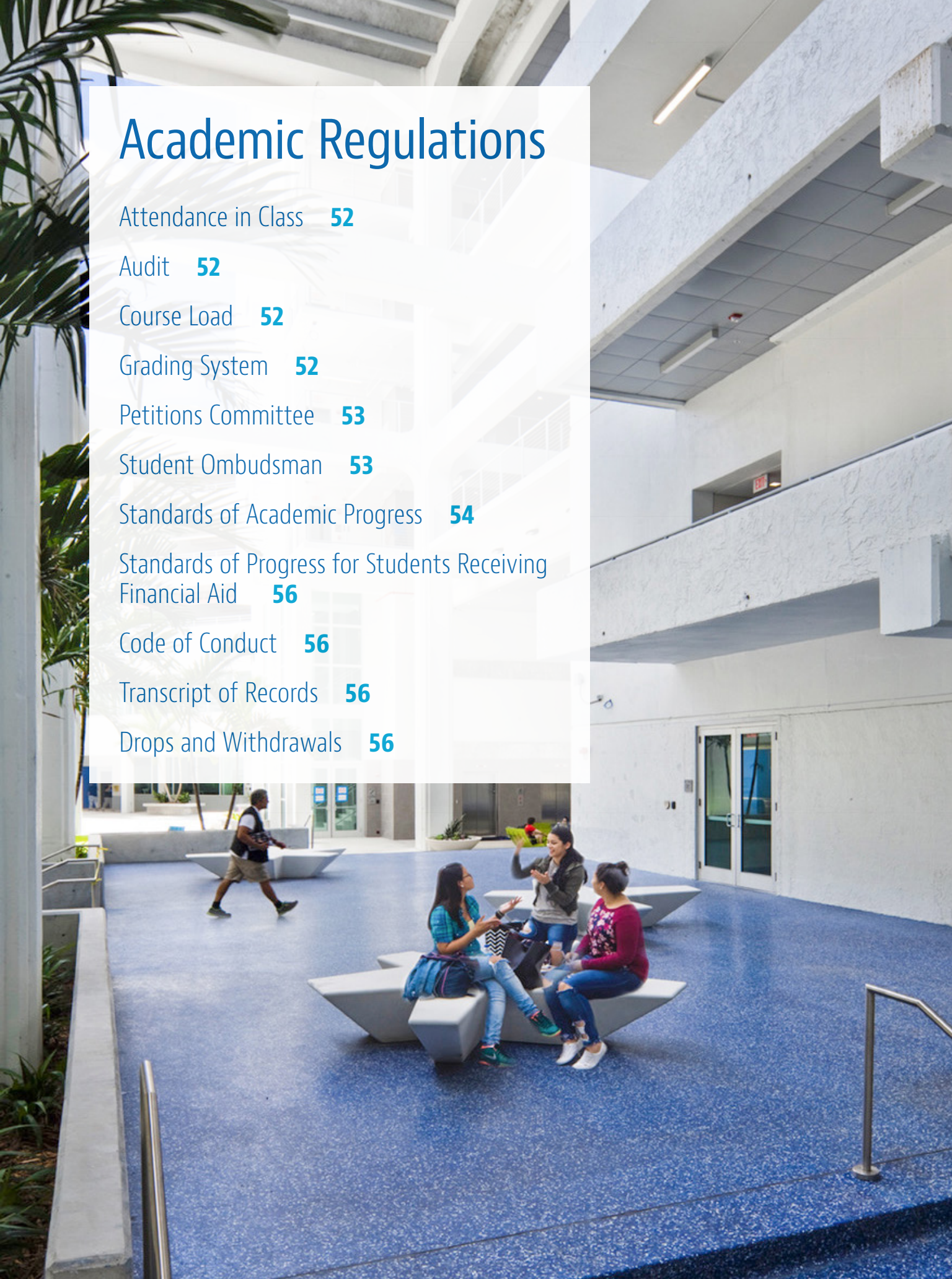
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ACADEMIC REGULATIONS

Attendance in Class

Students are expected to attend every class meeting and to arrive on time. Students who expect to miss a class, or those anticipating tardiness, should let the instructor know. In most courses, attendance requirements are listed on the syllabus. It is the responsibility of the student to make up work missed.

Audit

Students desiring to enroll in a course at Miami Dade College, but who do not wish to receive a grade or credit for the class, may elect to audit. Students will not be allowed to change from an audit status to a credit status (or from credit to audit) after the 100 percent refund date for each term.

Audit courses will be included in the student's academic record with a non-punitive grade of "Z"; however any audit courses taken prior to fall 2016 will show a grade of "X". Courses and credits enrolled for audit purposes do not count in the computation of a student's full-time or part-time enrollment status. College Preparatory students, who are required to be certified as completing competency-based College Preparatory instruction, cannot be enrolled under audit status.

Auditing a class costs the same as enrolling for a credit course.

Course Load

All credit courses carry a specified number of credits. A 3-credit lecture course normally meets three hours per week during the 16-week terms, and eight hours per week during the six-week terms. Lab classes generally meet for two hours per credit.

The fall and spring terms are called "major terms" and are approximately 16 weeks long. During a major term, a full course load is considered to be 12 or more credits. The summer term consists of two six-week summer sessions (first six-weeks/second six-weeks). Some courses are scheduled for the combined summer sessions of 12 weeks. During the six-week summer session a full load is considered to be 6 or more credits.

It is suggested that students who are employed should reduce their college load as follows:

Work Hours per week	# Credits fall/ spring	# Credits summer A/B
20	12-15	6-7
25	8-11	5-6
40	6-7	3

Grading System

Students in college credit and vocational credit courses are graded according to the following grade point average (GPA) system:

A. Used in GPA computation:

Grade	Interpretation	Point Value
A	Excellent	4
B	Good	3
C	Average	2
D	Poor	1
F	Failure	0

B. Not used in GPA computation:

Code	Interpretation
I	Incomplete
W	Withdrew
Z	Audit
S	Satisfactory
P	Progress - course requirements not completed, student must repeat
U	Unsatisfactory
NC	No Credit
NG	No grade assigned
NR	Grade not recorded by instructor

Final grades are available on the student portal following the end of the term.

Grade Point Average (GPA)

Each letter grade has a point value (see above). To compute the grade

Course Code	Credits	Grade	Total Points
ENC 1101	3	A	12
HUM 120	3	C	6
ISS 1120	3	F	0
ISS 1161	3	B	9
ART 1300C	3	C	6
DAA 1160	1	B	3
Total	**16**		**36**

Divide 36 points by 16 credits = 2.25 GPA

points for a course, multiply the grade point value by the number of credits. For example, a "B" in a 3-credit course, is worth 9 points. A "B" in a 4-credit course is worth 12 points. To calculate a GPA, add the total grade point values for all courses and divide that figure by the total number of credits attempted.

In order to graduate from any credit program at MDC and/or to qualify for entry into a bachelor's degree program, a student must have a minimum 2.0 GPA.

Repeating Courses

Students may repeat courses taken at MDC if they received a "W," "U," "D," or "F" grade.

State rule (F.A.C. 6A-14.0301) limits the number of repeat attempts to three per course. The third and final repeat attempt (i.e., the fourth time a student attempts the course) may be granted only if the student petitions (https://www.mdc.edu/smart/) through an appeals process, and if the student has documentation to convey extenuating circumstances. However, a student is not permitted to withdraw during the third or fourth attempt (i.e., a grade must be assigned). Repeated surcharges apply to any third or fourth attempt. All courses originally taken and then repeated will appear on the student's transcript with assigned grades, but the GPA will be recomputed to average the third and subsequent attempts of computable grades.

Specific courses, as identified in the course description section, may be repeated multiple times for additional credit. All attempts of these courses will be included within the GPA. Students should note that some state universities and colleges may not accept courses repeated for additional credit. Students should also be aware that some private colleges or universities might not accept the grade of a repeated course, and that some institutions compute the grade originally assigned.

Incomplete "I" Grade

When a student is unable to complete the requirements of a course by the end of the semester, the student may be assigned an "Incomplete" or "I" grade. The "I" grade is recorded by the instructor if the student has valid reasons for not being able to finish the work. The student and instructor complete an "Agreement for Grade of Incomplete" form, which stipulates the work to be completed for a grade. If the student has not completed the required coursework after 180 calendar days, the incomplete grade will be changed to a failing grade.

Grade Appeals

The responsibility for the academic evaluation and assignment of grades is that of the faculty member teaching the course. A student who believes that he or she has been unfairly graded should first appeal the grade to the faculty member. If satisfaction is not achieved, the student may appeal through administrative channels (Department Chair, Academic Dean or the grade appeals committee http://www.mdc.edu/procedures/Chapter8/8301.pdf).

Academic Amnesty

Students with credits more than 10 years old may petition to have these grades excluded from cumulative GPA calculation. This is a one-time privilege. Students may not request specific courses to be removed; it must be the entire prior record. Students may obtain a Request for Academic Amnesty form at any Advisement & Career Services Department.

Since academic amnesty does not remove courses from the academic record (it only excludes them from cumulative grade point average calculations at MDC), state/federal regulations concerning course attempts will still apply. Therefore, if a student has three or more attempts in the same course, state regulations mandate that the student be assessed the full cost of instruction and not be permitted to withdraw after the 100 percent refund deadline for the course.

Academic amnesty does not apply to federal and state financial aid regulations. The academic record impacted by academic amnesty is not excluded from federal and state financial aid policies. Students should consult an MDC financial aid advisor prior to requesting academic amnesty. Academic amnesty requests that include courses that were used as part of the requirements for a previously awarded program of study will not be processed.

Petitions Committee

The Petitions Committee (www.mdc.edu/rightsandresponsibilities/) considers exceptions to financial and withdrawal policies as stated in this catalog. Students should submit a written petition to the committee. The committee will make a recommendation to the Dean of Student Services for approval and implementation. The decision of the Dean is final. Petitions should identify the student (complete name and student number), and clearly and concisely state the request (by writing a personal letter and supplying supporting documentation for the reason stated in the letter). Students should address the petition to: Petitions Committee, Dean of Student's Office, and submit the petition at the campus at which they are registered for courses. Petitions must be made by the end of the next major term (fall and spring).

Student Ombudsman

MDC has a student ombudsman who serves as the initial point of contact for students who have con-

cerns, complaints or issues related to College processes, policies and procedures. The Ombusdman listens to student concerns; directs students to the appropriate MDC office, policies and procedures; and, if requested, assists students in completing the forms required to obtain a resolution. The Student Ombudsman has the authority to investigate issues and arrange meetings among the involved parties in order to reach a resolution. MDC has designated the Student Ombudsman as the Assistant Dean of Student Services or designee at each campus (https://www.mdc.edu/remote-learning-students/student-support-services/dean-of-students/).

Standards of Academic Progress

The main purpose for the Standards of Academic Progress (SOAP) Procedure is to establish a formal process through which the faculty, staff, and administration at Miami Dade College may identify and provide support to students who experience academic difficulty and fall below a Combined Cumulative Grade Point Average (GPA) of 2.0 (Calculated from the combined graded units for GPA). The combined Cumulative GPA includes computation of grades for both MDC and posted transfer courses. Good Academic Standing is defined as 2.0 or higher for the Combined Cumulative GPA. SOAP is not intended to discourage or penalize students. Rather, SOAP reflects the commitment of the College's faculty, staff, and administration to provide students with assistance and support to ensure success in achieving their educational goals. Students have available to them a variety of means to remedy their cognitive and non-cognitive challenges and to be academically successful. When academic progress has not been satisfactory, SOAP requires students to meet with an academic and career advisor to develop an academic improvement plan and discuss support services that may assist them in achieving good academic standing. Students who are not in Good Academic Standing are ineligible to run for executive board positions in student organizations unless special permission is granted by the Dean of Students at their home campus. The overall objective of SOAP is to improve the performance of students experiencing academic difficulty by connecting them to academic and student support services (https://www.mdc.edu/procedures/Chapter4/4010.pdf).

Categories for Standards of Academic Progress

Warning: from 8 to 16.99 combined graded units/credits for GPA with less than 2.0 for the Combined Cumulative GPA.

Probation: from 17 to 45.99 combined graded units/credits for GPA with less than 2.0 for the Combined Cumulative GPA or previously in Probation and Term GPA is less than 2.0.

Course Load Reduction Warning: from 30 to 45.99 combined graded units/credits for GPA less than 1.5 Combined Cumulative GPA and previously in Good Academic Standing or 46 or more combined graded units/credits for GPA less than 2.0 for the Combined Cumulative GPA and previously in Good Academic Standing.

Course Load Reduction 1: from 30 to 45.99 combined graded units/credits for a GPA of less than 1.5 for the Combined Cumulative GPA and previously not in Good Academic Standing.

Course Load Reduction 2: 46 or more combined graded units/credits for GPA with less than 2.0 for the Combined Cumulative GPA and previously not in Good Academic Standing.

Extended Course Load Reduction: 30 or more combined graded units/credits for GPA and previously on Course Load Reduction Warning, 1, 2, or 3 with a Term GPA of 2.0 or higher.

Course Load Reduction 3: 30 or more combined graded units/credits for GPA and failure to meet the minimum requirements of maintaining a Term GPA of 2.0 or higher during Extended Coarse Load Reduction or Course Load Reduction 1, 2, or 3.

Interventions for each Category of Standard of Academic Progress (SOAP)

Warning: Students in this category are encouraged to meet with College staff to discuss enrollment and academic planning. The College provides support with registration, updating academic plans, and development of educational and career goals as well as connections with academic resources and holistic student support services. In an effort to support student success, course load reductions for the subsequent term may be placed to ensure the student makes adequate progress.

Course Load Reduction Warning: Students in this category must meet with a Student Success Advisor to discuss enrollment and academic planning. This plan may include referrals to academic support services and/or holistic student support services. In an effort to support student success, course load reductions for the subsequent term may be placed to ensure the student makes adequate progress.

Probation: Students in this category may register for up to 12 units/credits per semester and must to meet with College staff to discuss enrolling beyond the unit limit. The College provides support with registration, updating academic plans, and development of educational and career goals as well as connections with academic resources and holistic student support services. In an effort to support student success, course load reductions for the subsequent term may be placed to ensure the student makes adequate progress.

Extended Course Load Reduction: Students in this category may register for up to 9 units/credits and must meet with College staff to discuss enrolling beyond the unit/credit limit. The College provides support with registration, updating academic plans, and development of educational and career goals as well as connections with academic resources and holistic student support services. In an effort to support student success, course load reductions for the subsequent term may be placed to ensure the student makes adequate progress.

Course Load Reduction 1 or 2: Students in this category may register for up to 9 units/credits and must meet with the Director of Advisement or their designee to discuss enrolling beyond the unit/credit limit. Students are also encouraged to meet with a Student Success Advisor to develop an academic improvement plan. This plan may include referrals to academic support services and/or holistic student support services. In an effort to support student success, course load reductions for the subsequent term may be placed to ensure the student makes adequate progress.

Course Load Reduction 3: Students in this category may register for up to 7 units/credits and must meet with the Director of Advisement or their designee to discuss enrolling beyond the unit/credit limit. Students are also encouraged to meet with a Student Success Advisor to develop an academic improvement plan. This plan may include referrals to academic support services and/or holistic student support services. In an effort to support student success, course load reductions for the subsequent term may be placed to ensure the student makes adequate progress.

Advisement at their home campus for consideration of continued enrollmen

A. Academic Suspension 1 or 2 Students are required to pause enrollment in credit courses at the College for the next term (fall, spring, or summer).

B. Extended Academic Probation Students who have successfully appealed Academic Suspension or who have met the time conditions for suspension may continue enrollment in credit courses at the College under the category of Extended Academic Probation, provided that they maintain a Combined Cumulative GPA of 2.0 or higher. Students must meet with an academic and career advisor prior to enrolling in courses to develop an academic improvement plan which may include referrals to academic support /tutoring and/or student sup-port services, career advising, learning style assessment, and/or enrollment in a Student Life Skills (SLS) course. Students may also be required to reduce their course load.

C. Academic Dismissal Students are required to discontinue enrollment in credit courses at the College for at least twelve months. After the twelve-month dismissal period, students are required to meet with the Dean of Students or designee at their home campus to petition for re-admission.

Guidelines for Appeal of Standards of Academic Progress

Students may request an exception to course load reductions according to MDC Procedure 4015 Guidelines for Appeal of the Standards of Academic Progress (https://www.mdc.edu/procedures/Chapter4/4015.pdf) as follow:

A. Probation and Extended Course Load Reduction statuses Students in these statuses may meet with college staff to request to exceed course load reductions. Students not approved to exceed course load reductions by college staff may appeal to the Director of Advisement or designee. Students not approved to exceed course load reductions by the Director of Advisement or designee may appeal the decision to their home campus' Dean of Students or designee and their decision is final.

B. Course Load Reduction 1, 2, or 3 statuses Students in these statuses may submit a request to exceed course load reductions to the Director of Advisement or designee at their home campus. Students not approved to exceed course load reduction by the Director of Advisement or designee may appeal the decision to their home campus' Dean of Students or designee and their decision is final.

1. Documentation Students will be encouraged to complete the "Exception to Course Load Reduction Questionnaire" form and present evidence/supporting documentation that reflects a change in circumstances in order to enroll beyond course load reduction.

2. Academic Improvement Plan Students must meet with a Student Success Advisor prior to enrolling in courses to develop an academic improvement plan which may include a referral(s) to academic support/tutoring and/or student support services, career advising, learning style assessment, and/or enrollment in a Student Life Skills (SLS) or other prescribed intervention course. Students may also be required to reduce their course load.

3. Decision and Record of the Appeal The decision of the Dean of Students or designee is final on behalf of the College. Students will be informed of the decision in five (5) business days.

Standards of Progress for Students Receiving Financial Aid

A student receiving financial aid must meet "Standards of Academic Progress." Federal regulations state that students are eligible to receive financial aid benefits for up to 150 percent of the number of credits registered to complete the degree or certificate. After the 150-percent mark, benefits will terminate. This applies to all registered credits, including courses that were attempted or withdrawn from, but not including "I" grades or audits. Thirty credits of College Preparatory and AP credits are exempted from this 150-percent rule. Students who meet or exceed the 150 percent are no longer eligible to receive federal/state financial aid. For extenuating circumstances, students may appeal through the Petition for Financial Aid Waiver.

Code of Conduct

By the act of registering at Miami Dade College, a student agrees to abide by the Code of Conduct of the College. A student who violates the Code of Conduct while on College property or while participating at a College-sponsored event may be suspended (http://www.mdc.edu/procedures/Chapter4/4025.pdf). Refer to Petitions Committee (https://www.mdc.edu/rightsandresponsibilities/) for more information.

Transcript of Records

A transcript (http://www.mdc.edu/transcripts/) is a printed list of all the courses taken, the number of credits and grade earned. Transcripts summarize the GPA and also indicate the receipt of any certificates or degrees. Students must request their official transcripts via the student portal (https://www.mdc.edu/transcripts/official.aspx) or in-person at the Office of the College Registrar.

Drops and Withdrawals

Dropping Courses

Students may drop courses within the drop period indicated on their class schedule. They may do so online using their MyMDC account, or in person at any campus Admissions and Registration Office. Note that a reduction in course load may impact athletic eligibility, financial aid, scholarships, and veteran benefits.

Administrative Withdrawal from Courses

Miami Dade College reserves the right to cancel courses and/or programs for which there is insufficient enrollment, to close a course when the enrollment limit in that course is reached and to make any schedule changes as necessary, including a change in time, days, credit, location or instructor. In the event of course cancellation, the College will notify each registrant by email and/or by telephone and will issue a full refund for the course. Miami Dade College is not responsible for any other related expenses. Students may see an academic advisor regarding selection of another course.

Faculty have the right to withdraw a student from their course for lack of attendance ("no show") or excessive absences as determined by established departmental guidelines.

If a student is withdrawn from a course or courses for disciplinary reasons, the student is not entitled to a refund of matriculation, tuition or special fees.

College Withdrawal Policy for Credit and Developmental Education Courses

Students who enroll in the same course for the third time (or subsequent time) will not be permitted to withdraw from (drop) the course. Attempts taken by students prior to the Fall Term 1997 will not be counted as an attempt for the purposes of this policy. An attempt is counted any time students officially enroll, have a paid fee invoice for a course, and do not withdraw from (drop) the course with a refund. For example, a student enrolled in a course in the Fall Term 2015 and received an "F" grade in the course. The student enrolled again in the same course in the Spring Term 2016 and found it necessary to withdraw from (drop) the course with a grade of "W" (Withdrawal). The student enrolled again for the third time in the course for the Summer Term 2016. The student needed to withdraw again from the course. This was not permitted, and the student received a valid grade of A, B, C, D, F, S, P or U at the end of the term.

Cost to Re-Enroll in a Course

Florida Statutes 1009.28 (applies to developmental education courses) and 1009.285 (applies to college credit courses) state that students who enrolled in the same course twice, received a grade of W, D, F, P, U or X and wish to re-enroll for the third time must pay the full cost of instruction for this attempt and any later attempts. This fee is equivalent to the cost of the course for a student paying fees as a non-resident of the state of Florida for tuition purposes. Students who are assessed the higher fee on the third attempt only may appeal to have the fee lowered. Contact the Dean of Student Services Office (https://www.mdc.edu/remote-learning-students/student-support-services/dean-of-students) at the campus where the course is offered for more information. A student cannot re-enroll in a course for credit if the student previously earned a grade of I, S, C or better.This policy is a result of 6A-14.0301 Florida Administrative Code.

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GRADUATION REQUIREMENTS AND TRANSFER INFORMATION

Graduation Requirements

Miami Dade College awards baccalaureate degrees in education, public safety management, nursing, supervision and management, film/television and digital production, health sciences with an option in physician assistant studies, electronics engineering technology, biological sciences, and early childhood education, as well as Associate in Arts, Associate in Science, and the Associate in Applied Science degrees. MDC also offers college credit certificates, advanced technical certificates and career technical certificates. Students must meet the general education requirements and any program requirements to be eligible for a degree.

Continuous Enrollment for Graduation Requirements

The College graduation requirements are based upon the term of admission or readmission to Miami Dade College. Those requirements apply as long as the student has continuous annual enrollment. If a student does not register for a period exceeding one year, he or she is subject to the graduation requirements in effect for the year and term of re-admission to the College.

Residency Requirements for Graduation

To satisfy the residency requirement for graduation, students must earn at Miami Dade College a minimum of 25 percent of the credits applicable toward the program of study for which graduation is sought. Additional requirements for specific programs of study include:

1. Different residency requirements may apply as required by programs that have special accreditation or by state regulations such as the statewide articulation agreements.
2. All associate, baccalaureate, and college credit programs require a minimum 2.0 GPA to graduate; some programs may have higher GPA requirements.

Baccalaureate Degree

Required Hours and GPA

Successful completion of a minimum of 120 semester hours or as approved by the State Board of Education, and a minimum GPA of 2.0 is required to earn a baccalaureate degree.

Note: A higher GPA may be required for specific majors.

General Education

Satisfactory completion of General Education courses (36 semester hours) as follows:

- Area I. English Composition (6 semester hours)
- Area II. Oral Communication (3 semester hours)
- Area III. Humanities/Fine Arts (6 semester hours)
- Area IV. Behavioral/Social Science (6 semester hours)
- Area V. Natural Science (6 semester hours)
- Area VI. Mathematics (6 semester hours)
- Area VII. General Education Elective (3 semester hours) Per 6A-10.030, Florida Administrative Code

Civics Literacy Competency

Prior to the award of an associate in arts or baccalaureate degree, new and returning students entering a Florida College System institution in the 2021-22 catalog year, and thereafter must demonstrate competency in civic literacy. This requirement may be satisfied by passing AMH 2020 or POS 2041 AND an approved exam (AP, CLEP, or FCLE).

Computer Skills Competency

All MDC degree-seeking students with 16 or more credits must demonstrate computer competency prior to graduation. Students demonstrate this competency by passing the MDC computer competency test, currently known as CSP (Computer Skills Placement) examination or by enrolling in and successfully completing an equivalent course. No credit is awarded for successful completion. For additional information please visit the Testing Criteria Computer Competency Web site, accessed from MDC's Homepage (www.mdc.edu) by clicking on 'Admissions', then 'Testing Information'.

Requirements for Admission to Upper Division

Students should review the Baccalaureate Degree section of this catalog and contact the Academic Department responsible for the specific Baccalaureate admissions criteria.

Foreign Language Requirement

In accordance with Rule 6A-10.02412, Florida Administrative Code and pursuant to Section 1007.262, Florida Statute, all AA and baccalaureate degree-seeking students must demonstrate Foreign Language Competence (FLC) by: (a) successfully completing the elementary 2 level (i.e., 2 years of secondary/high school level) or postsecondary/college level equivalent in one (1) foreign language or American Sign Language OR (b) successfully completing a standardized examination that documents the required FLC. Students who demonstrate proficiency in a native language other than English are exempt. For more information, please visit the MDC Credit-by-Exam website or contact the MDC World Languages department.

Associate in Science Degree

Associate in Science degree: Awarded to students who successfully complete a program of career and technical instruction consisting of lower division college credit courses to prepare for entry into employment. The associate in science degree is a transfer degree and a basis for admission to a related bachelor's degree. The associate in science degree shall be awarded upon satisfactory completion of a planned program of instruction comprised of the standard credit hour length established, after demonstration of the attainment of predetermined and specified performance requirements. The standard credit hour length of all associate in science degree programs as defined in Rule 6A-6.0571, F.A.C.

Requirements for Associate in Science Degree

1. Complete an approved program of study with 60 credits or as approved by the State Board of Education.
2. Earn a minimum 2.0 cumulative GPA in the 60 credits or as approved by the State Board of Education required for graduation.
3. Complete a minimum of 15 credits of general education courses.
4. First-time-in-college students must demonstrate competency in civic literacy.
5. Meet MDC Residency for Graduation requirements.

General Education and Miami Dade College Student Learning Outcomes

General Education: Student Learning

The General Education program provides multiple, varied, and intentional learning experiences that provide students with a solid foundation for personal, academic, and professional development. The program is meant to facilitate the acquisition of fundamental knowledge and skills and the development of attitudes that foster effective citizenship and the desire for lifelong learning. What begins in specified general education coursework is reinforced and expanded by purposeful Student Learning Outcomes present throughout degree programs and co-curricular activities.

Student Learning Outcomes: A Promise between Students and Faculty

All students who graduate from MDC - regardless of major or degree type - have ten things in common: the college-wide student learning outcomes (CSLO). Developed collaboratively by students, faculty, alumni and industry partners, and adopted in 2007, the outcomes are part of the Miami Dade College learning experience. The Learning Outcomes Committee (LOC) provides oversight of MDC's assessment and student learning improvement activities. The CSLOs summarized below will help students succeed in their chosen field, strengthen critical life skills, and encourage lifelong learning:

1. Communicate effectively using listening, speaking, reading, and writing skills
2. Use quantitative analytical skills to evaluate and process numerical data
3. Solve problems using critical and creative thinking and scientific reasoning
4. Formulate strategies to locate, evaluate, and apply information
5. Demonstrate knowledge of diverse cultures, including global and historical perspectives
6. Create strategies that can be used to fulfill personal, civic, and social responsibilities
7. Demonstrate knowledge of ethical thinking and its application to issues in society
8. Use computer and emerging technologies effectively
9. Demonstrate an appreciation for aesthetics and creative activities
10. Describe how natural systems function and recognize the impact of humans on the environment

General Education Requirements for the Associate in Arts

To receive an Associate in Arts, students must complete 36 Units of General Education courses and 24 Units of Pathway Elective courses.

Students must complete the following pathway/program information located at https://www.mdc.edu/academics/programs/ps/associate-in-arts-pathway-guide-effective-2217.pdf:

ASSOCIATE IN ARTS

Total credits required for the degree: 60 :

Miami Dade College

ASSOCIATE IN ARTS DEGREE PATHWAY GUIDE
Effective Term: Fall 2025

COMMUNICATIONS 6 Credits*
State Core:
ENC 1101 English Composition 1 (W)
MDC Core:
ENC 1102 English Composition 2 (W)

ORAL COMMUNICATIONS 3 Credits*
Select 1 course from the following.
ENC2300 Advanced Composition and Communications (W)
SPC 1017 Introduction to Communication (W)
SPC 2608 Introduction to Public Speaking (W)

MATHEMATICS 6 Credits*
Select at least 1 course from the 4 State Core options. Lab Credits are not allowed in this area.

State Core 3 Credits
1. MAC 1105 College Algebra (C)
2. MAC 2311 Calculus and Analytical Geometry 1 (C)
3. MGF 1130 Mathematical Thinking (C)
4. STA 2023 Statistical Methods (C)

MDC Core 3 Credits
MAC 1105 College Algebra (C)
MAC 1106 Integrate (C)
MAC 1114 Trigonometry (C)
MAC 1140 Pre-Calculus Algebra (C)
MAC 1147 Pre-Calculus Algebra and Trigonometry (C)
MAC 2233 Business Calculus (C)
MAC 2311 Calculus and Analytical Geometry 1 (C)
MAC 2312 Calculus and Analytical Geometry 2 (C)
MAC 2313 Calculus and Analytic Geometry 3 (C)
MAD 1100 Discrete Mathematics for Computer Science (C)
MAD 2104 Discrete Mathematics (C)
MAP 2302 Introduction to Differential Equations (C)
MAS 2103 Elementary Linear Algebra (C)
MGF 1130 Mathematical Thinking (C)
MGF 1131 Mathematics in Context (C)
QMB 2100 Basic Business Statistics (C)
STA 2023 Statistical Methods (C)

HUMANITIES 6 Credits*
Select at least 1 course from the 6 State Core options.

State Core 3 Credits
1. ARH 1000 Art Appreciation
2. HUM 1020 Humanities
3. LIT 2000 Introduction to Literature (W)
4. MUL 1010 Music Appreciation
5. PHI 2010 Introduction to Philosophy (W)
6. THE 2000 Theatre Appreciation (W)

MDC Core 3 Credits
ARC 2701 History of Architecture 1
ARC 2702 History of Architecture 2 (W)
ARH 1000 Art Appreciation
ARH 2050 Art History 1
ARH 2051 Art History 2 (W)

ARH 2740	Cinema Appreciation (W)
DAN 2100	Dance Appreciation
DAN 2130	Dance History 1 (W)
HUM 1020	Humanities
LIT 2000	Introduction to Literature (W)
LIT 2120	A Survey of World Literature (W)
MUH 2111	Survey of Music History 1
MUH 2112	Survey of Music History 2 (W)
MUL 1010	Music Appreciation
MUL 2380	Jazz and Popular Music in America (W)
PHI 2010	Introduction to Philosophy (W)
PHI 2600	Introduction to Ethics (W)
THE 2000	Theater Appreciation (W)

SOCIAL SCIENCES 6 Credits*
Select at least 1 course from the 6 State Core options. To meet the Civic Literacy Competency Requirement for graduation one course selection should be AMH 2010 or AMH 2020 or POS 2041.

State Core 3 Credits

1.	AMH 2010	History of the US to 1877
2.	AMH 2020	History of the US Since 1877
3.	ANT 2000	Introduction to Anthropology
4.	ECO 2013	Principles of Economics (Macro) (W)
5.	POS 2041	American Federal Government
6.	PSY 2012	Introduction to Psychology

MDC Core 3 Credits

AMH 2010	History of the US to 1877
AMH 2020	History of the US Since 1877
ANT 2000	Introduction to Anthropology
DEP 2000	Human Growth and Development
ECO 2013	Principles of Economics (Macro) (W)
POS 2041	American Federal Government
PSY 2012	Introduction to Psychology
SYG 2000	Introduction to Sociology
WOH 2012	History of World Civilization to 1789
WOH 2022	History of World Civilization From 1789

NATURAL SCIENCES 6 Credits*
Select at least 1 course from the 13 State Core options. Lab Credits are not allowed in this area.

State Core 3 Credits

1.	AST 1002	Descriptive Astronomy
2.	BSC 1005	General Education Biology
3.	BSC 2010	Principles of Biology
4.	BSC 2085	Human Anatomy and Physiology I
5.	CHM 1020	General Education Chemistry
6.	CHM 1045	General Chemistry & Qualitative Analysis
7.	ESC 1000	General Education Earth Science
8.	EVR 1001	Introduction to Environmental Science
9.	GLY 1010	Physical Geology
10.	OCE 1001	Introduction to Oceanography
11.	PHY 1020	General Education Physics
12.	PHY 2048	Physics with Calculus 1
13.	PHY 2053	Physics (without Calculus) 1

MDC Core 3 Credits

AST 1002	Descriptive Astronomy
BOT 1010	Botany
BSC 1005	General Education Biology
BSC 1084	Functional Human Anatomy
BSC 2010	Principles of Biology
BSC 2020	Human Biology: Fundamentals of Anatomy/Physiology
BSC 2085	Anatomy and Physiology I

CHM1020	General Education Chemistry
CHM1025	Introductory Chemistry
CHM1033	Chemistry for Health Sciences
CHM1045	General Chemistry and Qualitative Analysis
CHM1046	General Chemistry and Qualitative Analysis
CHM2200	Survey of Organic Chemistry
CHM2210	Organic Chemistry 1
CHM2211	Organic Chemistry 2
ESC 1000	General Education Earth Science
EVR 1001	Introduction to Environmental Science
GLY 1010	Physical Geology
GLY1100	Historical Geology
HUN 1201	Essentials of Human Nutrition
MET1010	Introduction to Weather
OCB 1010	Introduction to Marine Biology
OCE 1001	Introduction to Oceanography
PHY1004	Physics with Applications 1
PHY1020	General Education Physics
PHY1025	Basic Physics
PHY2048	Physics with Calculus 1
PHY2049	Physics with Calculus 2
PHY2053	Physics (without Calculus) 1
PHY2054	Physics (without Calculus) 2
PSC 1121	General Education Physical Science
PSC 1515	Energy in the Natural Environment

GENERAL EDUCATION ELECTIVE 3 Credits
Select at least 1 course from the following options.

AMH2010	BSC2010L	CHM2211	GLY1010	MAP2302	PHY2054L
AMH2020	BSC2011	CHM2211L	GLY1010L	MAS2103	POR1120
AMH2035	BSC2011L	CLP2000	GLY1100	MCB2010	POR1121
AML2010	BSC2020	CRW2001	HLP1081	MCB2010L	POS2041
AML2020	BSC2085	CRW2002	HUM1020	MET1010	POS2112
ANT2000	BSC2085L	DAN2100	HUN1201	MGF1130	PSC1121
ARC2701	BSC2086	DAN2130	INR2002	MGF1131	PSC1515
ARC2702	BSC2086L	DAN2131	ITA1120	MUH2111	PSY2012
ARH1000	BSC2426	DEP2000	ITA1121	MUH2112	QMB2100
ARH2050	BSC2426L	DEP2100	JPN1120	MUL1010	REL1210
ARH2051	BSC2427	ECO2013	JPN1121	MUL2380	REL1240
ARH2740	BSC2427L	ECO2023	LAH2021	OCB1010	RUS1120
ASL1140C	CHI1120	ECO2301	LIT2000	OCE1001	RUS1121
ASL1150C	CHI1121	EDF1005	LIT2090	PHI1100	SOP2002
ASL2210	CHM1020	ENC1101	LIT2120	PHI2010	SPC1017
ASL2220	CHM1025	ENC1102	MAC1105	PHI2600	SPC2601
ASL2400	CHM1025L	ENC2300	MAC1105L	PHY1004	SPC2608
ASL2430	CHM1033	ENG2012	MAC1106	PHY1004L	SPN1120
ASL2510	CHM1033L	ENL2012	MAC1114	PHY1020	SPN1121
AST1002	CHM1045	ENL2022	MAC1140	PHY1025	STA2023
BOT1010	CHM1045L	ESC1000	MAC1147	PHY2048	SYG2000
BOT1010L	CHM1046	EUH2032	MAC2233	PHY2048L	THE2000
BOT2150C	CHM1046L	EVR1001	MAC2311	PHY2049	WOH2012
BSC1005	CHM2200	FRE1120	MAC2312	PHY2049L	WOH2022
BSC1005L	CHM2200L	FRE1121	MAC2313	PHY2053	
BSC1084	CHM2210	GER1120	MAD1100	PHY2053L	
BSC2010	CHM2210L	GER1121	MAD2104	PHY2054	

FIRST YEAR EXPERIENCE

SLS 1106	First Year Experience Seminar

OR

One of the courses below based on advisor's recommendation:

IDH 1001	Honors Leadership Seminar 1
IDH 1002	Honors Leadership Seminar 2
IDH 2003	Honors Leadership Seminar 3
IDH 2004	Honors Leadership Seminar 4
SLS 1125	Student Support Seminar
SLS 1401	Psychology of Career Adjustment
SLS 1502	College Study Skills
SLS 1505	College Survival Skills
SLS 1510	Preparing for Student Success

PATHWAY ELECTIVES 24 Credits

Elective courses should be selected by pathway and/or specialization. Consult with an advisor. Also refer to information available at your Transfer Institution of choice. General education courses that are not used to meet general education requirements may be used for pathway electives in this block.

FOREIGN LANGUAGE COMPETENCY

May be satisfied by Foreign Language Competency (FLC) standardized examinations. For more information, refer to Foreign Language Competency.

OR

ASL 1150C	FRE 1121	ITA 1121	POR 1121	SPN 1121
CHI 1121	GER 1121	JPN 1121	RUS 1121	

COMPUTER COMPETENCY

By the 16th earned college-level credit, students must attempt the computer competency requirement OR by the 31st earned college-level credit, students must satisfy the requirement (CGS1060C, an equivalent college credit course or the College's approved computer competency test). For more information, see Computer Competency.

CHM 1025

The Chemistry Advanced Readiness Test (CART) is an opportunity for eligible students to bypass CHM1025. Review the MDC CART webpage for eligibility.

CIVIC LITERACY COMPETENCY

Associate in arts or baccalaureate degree students entering a Florida College System (FCS) or State University System (SUS) institution in the 2021-2022 academic school year and thereafter and Associate in Science degree students entering a Florida College System (FCS) or State University System (SUS) institution in the 2022-2023 academic school year and thereafter must demonstrate competency through successful completion of a civic literacy course (AMH 2010 or AMH 2020 or POS 2041) AND by achieving a passing score on the Florida Civic Literacy Examination (FCLE). First-time-in-college students who entered between Fall 2018 and Summer 2021 will continue to have the option of passing a course or an approved assessment.
For more information regarding the Florida Civic Literacy Requirement, go to Civic Literacy Competency.

60 CREDITS REQUIRED FOR GRADUATION

General Education: 36 Credits

State Core: 15 Credits
MDC Core: 21 Credits

Pathway Electives

24 Credits
For more information regarding General Education Course Options, refer to Rule 6A-14.0303, General Education Course Options.

GENERAL EDUCATION CORE COURSE STANDARDS

1. **Communication** courses must afford students the ability to communicate effectively, including the ability to write clearly and engage in public speaking.
2. **Humanities** courses must afford students the ability to think critically through the mastering of subjects concerned with human culture, especially literature, history, art, music, and philosophy, and must include selections from the Western canon.
3. **Mathematics** courses must afford students a mastery of foundational mathematical and computation models and methods by applying such models and methods in problem solving.

4. **Natural Science** courses must afford students the ability to critically examine and evaluate the principles of the scientific method, model construction, and use the scientific method to explain natural experiences and phenomena.
5. **Social Science** courses must afford students an understanding of the basic social and behavioral science concepts and principles used in the analysis of behavior and past and present social, political, and economic issues.

MDC Advisement & Career Services Offices

Hialeah Campus | Room 2101 | 305-237-8794
Padrón Campus | Room 1101 | 305-237-6133
Medical Campus | Room 1223 | 305-237-4141
Wolfson Campus |Room 2301 | 305-237-3077
Meek Center | Room 1102-02 | 305-237-1900
Homestead Campus | Room C210 | 305-237-5046
Kendall Campus | Room R243 | 305-237-2125
North Campus | Room 1104 | 305-237-1425
West Campus | Room 2114 | 305-237-8947
Call Center | 305-237-8888 | mdcinfo@mdc.edu

Important Information

The official graduation requirements are on the Academic Requirements page in MDConnect at mdconnect.mdc.edu. You are encouraged to visit Advisement for assistance with your degree requirements.
Other Assessment Procedures for College-Level Communication and Computation Skills (6A-10.030) (often referenced as Gordon Rule) requires:

W = Writing Intensive Course: Six (6) semester hours of English coursework and six (6) semester hours of additional coursework in which the student is required to demonstrate college-level writing skills through multiple assignments.

C = Computational Course: Six (6) semester hours of mathematics coursework at the level of college algebra or higher.

*General education courses require a grade of C or higher to satisfy the requirement.
W = Writing Intensive Course
C = Computational Course

Effective term depends on your most recent term of admission to the College. Students admitted to the College prior to Fall 2024 can view their effective term on the Academic Requirements page in MDConnect at mdconnect.mdc.edu.

Other Assessment Procedures for College-Level Communication and Computation Skills (6A-10.030) (often referenced as Gordon Rule)

A. In addition to assessments that may be adopted by the State Board of Education or Board of Governors to measure student achievement in college-level communication and computation skills, other assessment requirements shall be met by successful completion of coursework in English and mathematics. For the purposes of this rule, a grade of C or higher shall be considered successful completion.

B. Prior to receipt of an Associate in Arts degree from a public community college or university or prior to entry into the upper division of a public university or college, a student shall complete successfully the following:

1. Six (6) semester hours of English coursework and six (6) semester hours of additional coursework in which the student is required to demonstrate college-level writing skills through multiple assignments. Each institution shall designate the courses that fulfill the writing requirements of this section. These course designations shall be submitted to the Statewide Course Numbering System. An institution to which a student transfers shall accept courses so designated by the sending institution as meeting the writing requirements outlined in this section.
2. Six (6) semester hours of mathematics coursework at the level of college algebra or higher. For the purposes of this rule, applied logic, statistics and other such computation coursework which may not be placed within a mathematics department may be used to fulfill three (3) hours of the six (6) hours required by this section.
3. (c) Students awarded college credit in English based on their demonstration of writing skills through dual enrollment, advanced placement, or international baccalaureate instruction pursuant to Rule 6A-10.024, F.A.C., and students awarded college credit based on their demonstration of mathematics skills at the level of college algebra or higher through one (1) or more of the acceleration mechanisms in Rule 6A-10.024, F.A.C., shall be considered to have satisfied the requirements in subsection 6A-10.030(2), F.A.C., to the extent of the college credit awarded.

C. Exemptions and Waivers. Any public community college or university desiring to exempt its students from the requirements of subsection 6A-10.030(2), F.A.C., shall submit an alternative plan to the Department of Education. Upon approval of the plan by the Department, the plan shall be submitted to the State Board of Education or the Board of Governors as appropriate. Upon approval by the State Board of Education or the Board of Governors, said plan shall be deemed effective in lieu of the requirements of subsection 6A-10.030(2), F.A.C.

Note: A list of MDC courses that fulfill this requirement, can be found at http://www.mdc.edu/asa/faculty/gordon_rule_courses.asp.

Advanced Technical Certificate Programs

Awarded to students who successfully complete a program of career and technical instruction consisting of nine (9) hours or more but less than forty-five (45) college credits of lower division and/or upper division courses. Florida College System institutions offering advanced technical certificates with upper division courses must be approved to offer baccalarueate programs containing those courses. An advanced technical certificate may be awarded to students who have already received an associate in science degree or an associate in applied science degree and are seeking an advanced specialized program of instruction to supplement their associate degree (information located at www.mdc.edu/academics/programs/default.aspx).

College Credit Certificate Programs

Awarded to students who successfully complete a program of career and technical instruction consisting of less than sixty (60) college credits which are part of an associate in science degree or an associate in applied science degree program and prepare students for entry into employment. The standard credit hour length of all technical certificate programs as defined in Rule 6A-6.0571, F.A.C. (information located at www.mdc.edu/academics/programs/default.aspx).

Career Technical Certificate Programs

Awarded to students who successfully complete a program of career and technical instruction consisting of clock hour courses to prepare for entry into employment. Upon satisfactory completion of a planned program of instruction, after the demonstration of the attainment of predetermined and specified performance requirements, the career and technical certificate shall be awarded. The standard clock hour length of all career and technical certificate programs as defined in Rule 6A-6.0571, F.A.C. (updated information located at www.mdc.edu/academics/programs/default.aspx).



Commencement (Graduation Ceremony)

Students who anticipate completing their program during the academic year should meet with an academic advisor to ensure that all graduation requirements will be met. Also, students must apply for graduation by the deadline published in the academic calendar. Students planning to graduate in spring or summer terms should note that the deadline is very early in the spring term. The commencement ceremony is held once a year, at the end of spring term (late April or early May). Caps and gowns are available at campus bookstores for those who have applied for graduation. There is no cost for these items.

Special Recognition for Outstanding Academic Performance (College Credit Students Only)

The College gives special recognition to students who demonstrate outstanding academic performance while working toward a degree. Students are eligible for the following recognition:

Dean's List – recognizes students who have a term combined cumulative GPA of 3.5 or above for 12 or more credits earned in the fall, spring, or summer term.

Letter of Congratulations – the campus dean of faculty or equivalent sends a special letter of congratulations to students who earn a term grade point average of 4.0 for 12 or more credits earned in the fall or spring terms (excluding courses that do not satisfy degree requirements).

In addition, special designations are entered on transcripts of students awarded a degree program as follows:

Honors

A combined cumulative GPA of 3.5–3.69 is required to graduate with Honors.

Honors and Distinction

A combined cumulative GPA of 3.5–3.69 and at least 15 credits earned in honors courses is required to graduate with Honors and Distinction.

Highest Honors

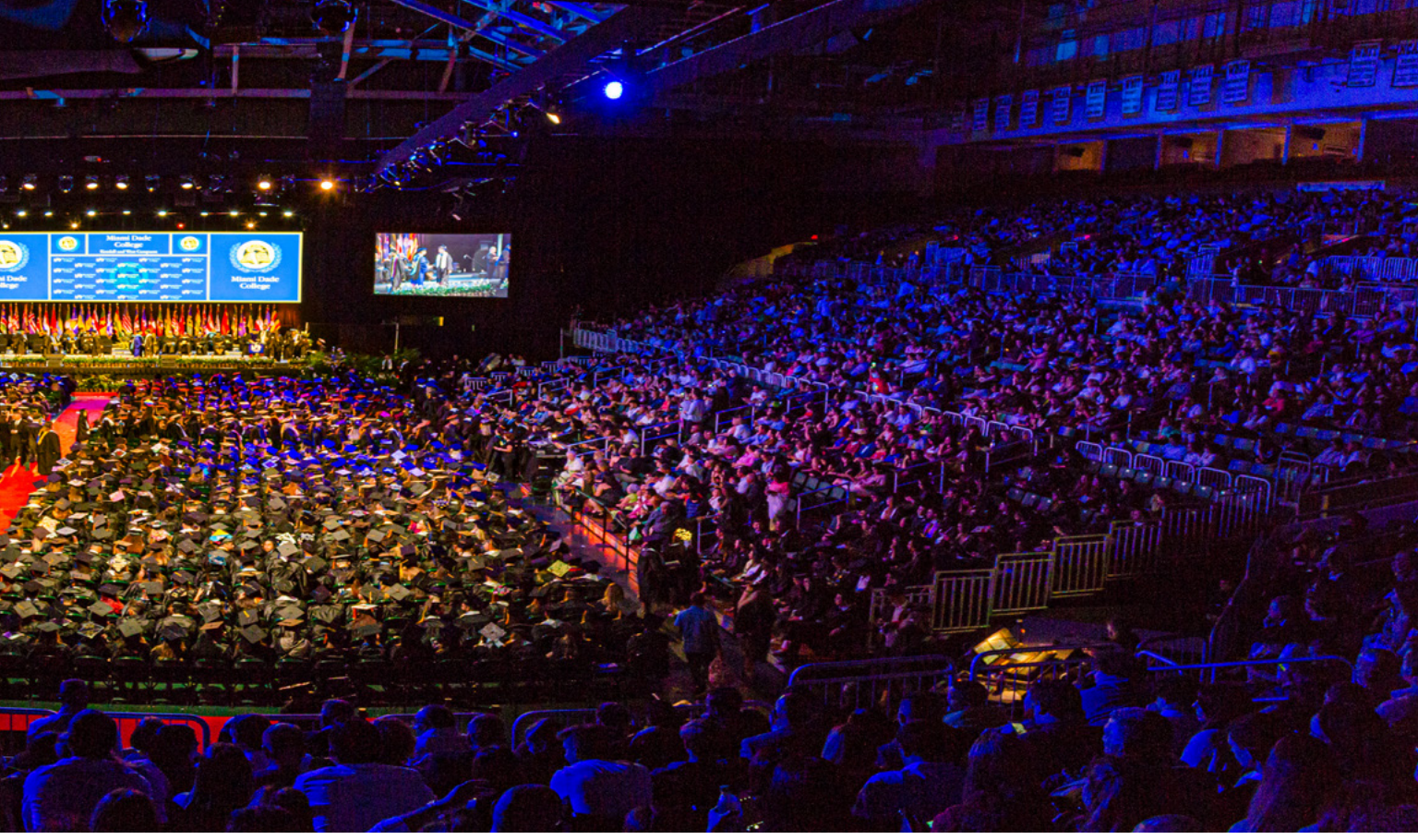
To graduate with Highest Honors, a student must achieve a combined cumulative GPA of 3.7 or higher.

Highest Honors and Distinction

A combined cumulative GPA of 3.7 or higher and at least 15 credits earned in honors courses is required to graduate with Highest Honors and Distinction.

Phi Theta Kappa

To be eligible for induction into Phi Theta Kappa, the International Honor Society of the Two Year College, a student must have completed a minimum of 12 collegelevel credits leading to an Associate degree, with a minimum 3.5 combined cumulative GPA and the student must be



currently enrolled. Upon graduation, initiated students will have the designation noted on their transcript.

Transfer Information

Transfer information and resources, including transfer agreements and transfer tips, can be found at: https://www.mdc.edu/transfer-information/

Graduating with an Associate in Arts degree guarantees MDC graduates numerous transfer benefits. Certain Associate in Science degrees are also transferable to related baccalaureate degree programs. Additional information about transfer guarantees and agreements can be found in the Transfer Agreement section.

Miami Dade College offers baccalaureate degrees in several areas of study: http://www.mdc.edu/academics/programs/bachelors.aspx. Students who meet the admissions criteria for these programs may apply at: https://mdcwap.mdc.edu/admission/.

Campus Advisement & Career Services Offices offer students a variety of academic advising and career-related services. Students who are undecided about their academic major or career goals, or who are interested in a systematic investigation of the universities best suited for their needs, should visit the Advisement & Career Services Office at their campus.

Articulation

Articulation is a system designed to provide for seamless transfer pathways for students from high school, through the Florida College System and into a baccalaureate degree program at a State University, Florida College System institution, or other postsecondary institution. There are a number of articulation agreements which create special transfer opportunities for students (updated information located at https://www.mdc.edu/transfer-information/).

Articulation Agreements with Miami-Dade County Public Schools

Miami Dade College and Miami-Dade County Public Schools have entered into several articulation agreements. These range from the formalized Early College Program agreements with New World School of the Arts and the School for Advanced Studies, to agreements for transfer of specific career pathways and career and technical education credits to Associate in Science degrees and certificate programs.

State of Florida Articulation Agreement

Section 1007.23, Florida Statutes, states the following:

A. The State Board of Education and the Board of Governors shall enter into a statewide articulation agreement which the State Board of Education shall adopt by rule. The agreement must preserve Florida's "2+2" system of articulation, facilitate the seamless articulation of student credit across and among Florida's educational entities, and reinforce the provisions of this chapter by governing: (a) Articulation between secondary and postsecondary education; (b) Admission of Associate in Arts degree graduates

from Florida College System institutions and state universities; (c) Admission of applied technology diploma program graduates from Florida College System institutions or career centers; (d) Admission of Associate in Science degree and Associate in Applied Science degree graduates from Florida College System institutions; (e) The use of acceleration mechanisms, including nationally standardized examinations through which students may earn credit; (f) General education requirements and statewide course numbers as provided for in ss. 1007.24 and 1007.25; and (g) Articulation among programs in nursing.

B. (a) The articulation agreement must specifically provide that every associate in arts graduate of a Florida College System institution shall have met all general education requirements and must be granted admission to the upper division of a:

1. State university, except for a limited access or teacher certification program or a major program requiring an audition.
2. Florida College System institution if it offers baccalaureate degree programs, except for a limited access or teacher certification program or a major program requiring an audition. (b) Florida College System institution Associate in Arts graduates shall receive priority for admission to the upper division of a Florida College System institution or to a state university over out-of-state students. Orientation programs, catalogs, and student handbooks provided to freshman enrollees and transfer students at Florida College System institutions and state universities must include an explanation of this provision of the articulation agreement.

C. To improve articulation and reduce excess credit hours, beginning with students initially entering a Florida College System institution in 2013-2014 and thereafter, the articulation agreement must require each student who is seeking an Associate in Arts degree to indicate a baccalaureate degree program offered by an institution of interest by the time the student earns 30 semester hours. The institution in which the student is enrolled shall inform the student of the prerequisites for the baccalaureate degree program.

D. The articulation agreement must guarantee the statewide articulation of appropriate workforce development programs and courses between school districts and Florida College System institutions and specifically provide that every applied technology diploma graduate must be granted the same amount of credit upon admission to an Associate in Science degree or Associate in Applied Science degree program unless it is a limited access program. Preference for admission must be given to graduates who are residents of Florida.

E. The articulation agreement must guarantee the statewide articulation of appropriate courses within Associate in Science degree programs to baccalaureate degree programs. Courses within an Associate in Applied Science degree program may articulate into a baccalaureate degree program on an individual or block basis as authorized in local interinstitutional articulation agreements.

F. The articulation agreement must guarantee the articulation of 9 credit hours toward a postsecondary degree in early childhood education for programs approved by the State Board of Education and the Board of Governors which: (a) Award a child development associate credential issued by the National Credentialing Program of the Council for Professional Recognition or award a credential approved under s. 1002.55(3) (c)1.b. or s. 402.305(3) (c) as being equivalent to the child development associate credential; and (b) Include training in emergent literacy which meets or exceeds the minimum standards for training courses for prekindergarten instructors of the Voluntary Prekindergarten Education Program in s. 1002.59.

Independent Colleges and Universities of Florida (ICUF)

There is also an articulation agreement between the Florida College System and the Independent Colleges and Universities of Florida (ICUF). Under the agreement, Florida College System graduates holding an Associate in Arts degree are guaranteed junior standing in any member institution, recognition of their completed general education core and the application of a minimum of 60 earned credit hours toward a baccalaureate degree.

Additional Agreements

In addition, Miami Dade College has developed several unique arrangements with local and out-of-state colleges and universities that make it possible for a student to apply for admission toward a baccalaureate degree. As a general rule, participating institutions will accept associate degree credits and work out a schedule for the additional bachelor's degree requirements. Miami Dade College also has agreements with universities that facilitate the transfer of MDC baccalaureate graduates to graduate programs. For additional information relating to articulation agreements, contact the Office of Articulation and Academic Pathways or visit https://www.mdc.edu/transfer-information/transfer-agreements/.

Miami Dade College (MDC) General Education Core Digital Badges

What is a Digital Badge

A digital badge is an award that is given to students upon completion of general education core courses that demonstrate career readiness. It is intended to help the student translate what they learned in general education courses to knowledge, skills and abilities that employers require.

Who's Eligible

Pursuant to s. 1007.25(4), F.S., all students initially entering a public postsecondary institution in the 2022-23 academic year (fall 2022) and thereafter and enroll in general education core courses are eligible for the awarding of a digital badge. This is inclusive of dual enrollment students who complete core courses while in high school in the 2022-23 academic year and thereafter. Minimally, institutions must award badges to students meeting these criteria.

Digital Badges Offered at MDC

	Fundamentals of Written Communication	Students will demonstrate effective reading, writing, speaking, listening, and nonverbal communication skills.

What is Effective Written Communication?

Effective written communication is the ability to communicate ideas, information, and perspectives clearly, adapting a message to different audiences and situations, and using the appropriate style to convey meaning in various written contexts.

What are you learning by earning this badge?

By completing the college course associated with this badge, you will demonstrate information literacy, comprehension of written material, and conveying information in writing for a variety of rhetorical purposes and audiences. Some of the learning outcomes associated with the college course that results in this badge include:

- Examining and analyzing written material
- Synthesizing information and ideas
- Developing content relevant to the purpose
- Demonstrating the ability to write to a specific audience
- Presenting a perspective informed by research and critical thinking
- Revising written communication based on feedback

Why is Effective Written Communication important in the workplace?

- Enhances an employee's ability to interpret and evaluate a wide variety of written material
- Promotes research, critical thinking, and problem solving
- Advances the development of clearly written material relevant to the intent
- Enhances the use of appropriate language for an intended audience
- Increases the competent, effective, and responsible use of information

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The baccalaureate (or Bachelor's) degree is an upper-level degree for students who wish to pursue further education. Miami Dade College (MDC) offers the Bachelor of Science (B.S.) and the Bachelor of Applied Science (B.A.S.) in selected areas of study. All MDC baccalaureate programs are approved by the Florida Board of Education (FLDOE) and are accredited by the Commission on Colleges of the Southern Association of C llege and Schools Commission on Colleges (SACSCOC).

Note: All students must complete the MDC Bachelor's Application at www.mdc.edu/admissions and ensure that all admissions requirements are met (https://www.mdc.edu/admissions/default.aspx).

General Education Requirement
All areas of General Education must be satisfactorily completed. Students must have an overall GPA of at least 2.0 in their General Education courses. Students must have a "C" or better in each course designated as "Gordon Rule."

Foreign Language Requirement
In accordance with Florida Administrative Code 6A10.02412 and pursuant to Florida Statute 1007.262, all baccalaureate degreeseeking students admitted to the baccalaureate degree program without meeting the Foreign Language Competence (FLC) must demonstrate competence prior to graduation.

Requirements for the Major
Departments are responsible for disseminating major requirements to students. Each candidate for the baccalaureate degree must complete requirements in their chosen major. The upper division major requirements consist of a minimum of thirty (30) semester hours. Visit www.mdc.edu/academics/programs/bachelors.aspx for specific requirements.

Dual Degree Versus a Double Major
Students should note that there is a difference between a double major (one degree, with a second major listed) and a dual degree (second baccalaureate degree). A student completing multiple majors that have the same degree (e.g. Bachelor of Science or Bachelor of Applied Science), will receive a single degree. The transcript will list the degree plus each major.

- **Double Major –** To obtain a double major, students must meet all requirements of the school/department of the primary major but only the major requirements of the secondary major.
- **Dual Degree** – Students may receive a second baccalaureate degree provided that:
  1. the requirements for each major/ minor as well as individual college requirements for both the first and
  2. the second degrees are satisfied; and 30 semester hours in residence are completed, in addition to the hours required for the first degree. The additional 30 semester hours must be completed in residence after the completion of the first degree. Hours earned by the student during the completion of the first baccalaureate degree, over and above those extra credit hours actually required for the first degree, may not be included in the 30 semester hours. There are no General Education requirement for the second (dual) degree.

Bachelor of Applied Science (B.A.S.)

Clinical Laboratory Sciences
Bachelor of Applied Science | Code: P9211 | 130 credits

The Bachelor of Applied Science (B.A.S.) in Clinical Laboratory Sciences is designed to accommodate the unique demands for entry and advancement within the health science industry. Medical Laboratory Scientist work with pathologists and other laboratory professionals in performing and analyzing laboratory testing used for diagnosis, treatment, and prevention of disease. Medical Laboratory Sciences program graduates are eligible for certification by the American Association of Bioanalysts (AAB), American Society for Clinical Pathology (ASCP), and American Medical Technologist (AMT). Upon completion of the program and the attainment of certification and license, medical laboratory scientists are employed in a variety of health-care settings as laboratory technologists with the opportunity of upward mobility to supervisory and management positions.

Film, Television & Digital Production
Bachelor of Applied Science | Code: P9220 | 120 credits

The Bachelor of Applied Science (B.A.S.) in Film, Television and Digital Production is a flexible baccalaureate program intended to accommodate the unique demands for entry and advancement in the media and entertainment sector. The B.A.S. program provides degree advancement opportunities for students with the Associate in Science in Film Production Technology and other Associate in Arts

programs. Students learn advanced, practical, and hands-on training necessary in today's film, television and digital media production workforce. Guided by outstanding faculty and curricula, students further their knowledge in the latest technologies, giving them the experience to successfully achieve their academic goals and professional aspirations. Graduates will be prepared to gain immediate employment with film and/or television production companies as producers, directors, technical directors, production managers, camera operators, cinematographers, writers, researchers, editors and sound engineers, as well as be prepared for graduate school in digital media production.

Health Science - Histotechnology Concentration

Bachelor of Applied Science | Code: P9212 | 130 credits

The Bachelor of Applied Science (B.A.S.) in Health Sciences with concentration in Histotechnology is designed to accommodate the unique demands for entry and advancement within the health science industry. Histotechnologist process patient samples for the detection of tissue abnormalities in order to determine the best treatment for the diseases causing the abnormalities. In addition to the dyes and chemicals used to prepare and stain tissues for microscopy, immunological and DNA techniques are utilized to determine specific cell types in tumors. Histotechnologist work in conjunction with the pathology department at a variety of hospital, surgical and clinical locations. Upon completion of the program and the attainment of certification and license, Histotechnologist are employed in a variety of health-care settings with the opportunity of upward mobility to supervisory and management positions. Histotechnologist program graduates are eligible for certification by the American Society for Clinical Pathology (ASCP).

Health Science - Physician Assistant Studies Concentration

Bachelor of Applied Science | Code: P9210 | 130 credits

The Bachelor of Applied Science in Health Science - Physician Assistant Studies Concentration is designed to address the critical shortage of healthcare professionals by providing graduates a continuance of technical, supervisory, and management skills necessary to meet workforce needs and labor market projections. Students will be provided with opportunities to develop discipline-specific medical skills and to expand their knowledge by participating in structured clinical experiences under the supervision of Physician Assistants and physicians.

Leadership and Management Innovation

Bachelor of Applied Science | Code: P9200 | 120 credits

The Bachelor of Applied Science (BAS) degree in Leadership and Management Innovation prepares associate degree graduates from a variety of disciplines for work as a supervisor or manager. The programs prepares students with the hands-on training necessary to meet the workforce demands of today and tomorrow while providing the skills needed to compete for advancement.

Leadership and Management Innovation - Accounting Concentration

Bachelor of Applied Science | Code: P9203 | 120 credits

The Bachelor of Applied Science (BAS) degree in Leadership and Management Innovation prepares students to meet the needs of a dynamic and global business environment with the abilities and skills to succeed as a manager or supervisor. In addition, students may complete the general degree or one of three concentrations in Accounting, Digital Marketing, Hospitality Management, or Human Resource Management.

Leadership and Management Innovation - Digital Marketing Concentration

Bachelor of Applied Science | Code: P9204 | 120 credits

The Bachelor of Applied Science (BAS) degree in Leadership and Management Innovationprepares students to meet the needs of a dynamic and global business environment with the abilities and skills to succeed as a manager or supervisor. In addition, students may complete the general degree or one of three concentrations in Accounting, Digital Marketing, Hospitality Management, or Human Resource Management.

Leadership and Management Innovation - Hospitality Management Concentration

Bachelor of Applied Science | Code: P9201 | 120 credits

The Bachelor of Applied Science (BAS) degree in Leadership and Management Innovation prepares students to meet the needs of a dynamic and global business environment with the abilities and skills to succeed as a manager or supervisor. In addition, students may complete the general degree or one of three concentrations in Accounting, Digital Marketing, Hospitality Management, or Human Resource Management.

Leadership and Management Innovation - Human Resource Management Concentration

Bachelor of Applied Science | Code: P9202 | 120 credits

The Bachelor of Applied Science (BAS) degree in Leadership and Management Innovation prepares students to meet the needs of a dynamic and global business environment with the abilities and skills to succeed as a manager or supervisor. In addition, students may complete the general degree or one of three concentrations in Accounting, Digital Marketing, Hospitality Management, or Human Resource Management.

Public Safety Management - Crime Scene Investigation Concentration

Bachelor of Applied Science | Code: P9106 | 120 credits

The four-year Bachelor of Applied Science degree is a workforce-driven baccalaureate degree in Public Safety Management designed to provide education and training, resulting in immediate employment possibilities for students in numerous careers in Public Safety. This comprehensive curriculum emphasizes critical thinking, analytical,

written and oral communications, as well as research skills designed to prepare today's learners for entry-level, mid-management, and upper level supervisory positions within Public Safety agencies such as the FBI, DEA, ICE, U.S. Marshals Service, U.S. Secret Service and others.

Public Safety Management - Criminal Justice Concentration

Bachelor of Applied Science | Code: P9110 | 120 credits

The four-year Bachelor of Applied Science degree is a workforce-driven baccalaureate degree in Public Safety Management designed to provide education and training, resulting in immediate employment possibilities for students in numerous careers in Public Safety. This comprehensive curriculum emphasizes critical thinking, analytical, written and oral communications, as well as research skills designed to prepare today's learners for entry-level, mid-management, and upper level supervisory positions within Public Safety agencies such as the FBI, DEA, ICE, U.S. Marshals Service, U.S. Secret Service and others.

Public Safety Management - Emergency Management Concentration

Bachelor of Applied Science | Code: P9105 | 120 credits

The four-year Bachelor of Applied Science degree is a workforce-driven baccalaureate degree in Public Safety Management designed to provide education and training, resulting in immediate employment possibilities for students in numerous careers in Public Safety. This comprehensive curriculum emphasizes critical thinking, analytical, written and oral communications, as well as research skills designed to prepare today's learners for entry-level, mid-management, and upper level supervisory positions within Public Safety agencies such as the FBI, DEA, ICE, U.S. Marshals Service, U.S. Secret Service and others.

Supply Chain Management

Bachelor of Applied Science | Code: P9300 | 120 creditss

Supply chain management is an interdisciplinary field that emphasizes cross-functional integration of diverse business functions, facilities, and activities and seeks to manage those activities to enhance a company's competitive advantage. The Bachelor of Applied Science with a major in Supply Chain Management (BAS-SCM) is designed to provide knowledge of the supply chain while exploring the risks, operations, logistics, economics, regulatory issues, change management, forecasting, resource allocation, production planning, inventory management, customer delivery, after-sales support and service and other functions basic to business.

Supply Chain Management - Procurement Management Concentration

Bachelor of Applied Science | Code: P9301 | 120 credits

Supply chain management is an interdisciplinary field that emphasizes cross-functional integration of diverse business functions, facilities, and activities and seeks to manage those activities to enhance a company's competitive advantage. The Bachelor of Applied Science with a major in Supply Chain Management (BAS-SCM) is designed to provide knowledge of the supply chain while exploring the risks, operations, logistics, economics, regulatory issues, change management, forecasting, resource allocation, production planning, inventory management, customer delivery, after-sales support and service and other functions basic to business.

Supply Chain Management - Project Management Concentration

Bachelor of Applied Science | Code: P9302 | 120 credits

Supply chain management is an interdisciplinary field that emphasizes cross-functional integration of diverse business functions, facilities, and activities and seeks to manage those activities to enhance a company's competitive advantage. The Bachelor of Applied Science with a major in Supply Chain Management (BAS-SCM) is designed to provide knowledge of the supply chain while exploring the risks, operations, logistics, economics, regulatory issues, change management, forecasting, resource allocation, production planning, inventory management, customer delivery, after-sales support and service and other functions basic to business.

Supply Chain Management - Supply Chain Analytics Concentration

Bachelor of Applied Science | Code: P9303 | 120 credits

Supply chain management is an interdisciplinary field that emphasizes cross-functional integration of diverse business functions, facilities, and activities and seeks to manage those activities to enhance a company's competitive advantage. The Bachelor of Applied Science with a major in Supply Chain Management (BAS-SCM) is designed to provide knowledge of the supply chain while exploring the risks, operations, logistics, economics, regulatory issues, change management, forecasting, resource allocation, production planning, inventory management, customer delivery, after-sales support and service and other functions basic to business.

Bachelor of Applied Science (BAS) Program Sheets

Miami Dade College

Clinical Laboratory Sciences
Bachelor of Applied Science | Code: P9211 | 130 credits
CIP (1105100002**)**
Effective Term: Fall 2025(2257)

The Bachelor of Applied Science (B.A.S.) in Clinical Laboratory Sciences is designed to accommodate the unique demands for entry and advancement within the health science industry. Clinical Laboratory Scientist work with pathologists and other laboratory professionals in performing and analyzing laboratory testing used for diagnosis, treatment, and prevention of disease. Clinical Laboratory Sciences program graduates are eligible for certification by the American Association of Bioanalysts (AAB), American Society for Clinical Pathology (ASCP), and American Medical Technologist (AMT). Upon completion of the program and the attainment of certification and license, clinical laboratory scientists are employed in a variety of health-care settings as laboratory technologists with the opportunity of upward mobility to supervisory and management positions.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS – 36 Credits Required (MET WITH A GRADE of "C" OR HIGHER)			
Communications – 6 Credits Required			
ENC 1101	English Composition 1	3	
ENC 1102	English Composition 2	3	Pre-Req: ENC 1101
Oral Communication – 3 Credits Required			
Select 3 Credits from the following			
ENC 2300	Advanced Composition & Communication	3	Pre-Req: ENC 1101, 1102
SPC 1017	Introduction to Communications	3	
SPC 2608	Introduction to Public Speaking	3	
Humanities – 6 Credits Required			
Select at least one course from the six State Core options.			
State Core: 3 credits			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theater Appreciation	3	
MDC Core: 3 credits			
ARC 2701	History of Architecture 1	3	
ARC 2702	History of Architecture 2	3	
ARH 1000	Art Appreciation	3	
ARH 2050	Art History 1	3	Pre-Req: ARH 2050
ARH 2051	Art History 2	3	
ARH 2740	Cinema Appreciation	3	
DAN 2100	Dance Appreciation	3	
DAN 2130	Dance History 1	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
LIT 2120	A Survey of World Literature	3	Pre-Req: ENC 1101 or ENC 1102 or Equivalent
MUH 2111	Survey of Music History 1	3	
MUH 2112	Survey of Music History 2	3	Pre-Req: MUH 2112
MUL 1010	Music Appreciation	3	
MUL 2380	Jazz and Popular Music in America	3	
PHI 2010	Introduction to Philosophy	3	
PHI 2600	Introduction to Ethics	3	
THE 2000	Theater Appreciation	3	

Behavioral and Social Sciences – 6 Credits Required
Select at least 1 course from the 6 State Core options. To meet the Civic Literacy Competency Requirement for graduation one course selection should be AMH 2010 or AMH 2020 or POS 2041.

State Core: 3 credits

AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US Since 1877	3	
ANT 2000	Introduction to Anthropology	3	
ECO 2013	Principles of Economics (Macro)	3	
POS 2041	American Federal Government	3	
PSY 2012	Introduction to Psychology	3	

MDC Core: 3 credits

AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US Since 1877	3	
ANT 2000	Introduction to Anthropology	3	
DEP 2000	Human Growth and Development	3	
ECO 2013	Principles of Economics (Macro)	3	
POS 2041	American Federal Government	3	
PSY 2012	Introduction to Psychology	3	
SYG 2000	Introduction to Sociology	3	
WOH 2012	History of World Civilization to 1789	3	
WOH 2022	History of World Civilization From 1789	3	

Natural Sciences – 6 Credits Required
Select at least one course from the State Core options.

State Core: 3 credits

BSC 2010	Principles of Biology	3	
BSC 2085	Human Anatomy & Physiology	3	

MDC Core: 3 credits

CHM 1020	General Education Chemistry	3	
CHM 1033	Chemistry for Health Sciences	3	Pre-Co-Req: CHM 1033L, MAT 1033
CHM 1045	General Chemistry & Qualitative Analysis	3	Prerequisite: CHM1025 or a passing score on the CART exam, MAC 1105; Co-requisite: CHM 1045L
PHY 1020	Fundamentals of Physics	3	
PHY 2048	Physics with Calculus 1	4	Prerequisites: High school physics or PHY 1025, PHY 2053 or departmental approval and MAC 2311; Corequisite: PHY 2048L
PHY 2053	Physics without Calculus 1	3	Prerequisite: MAC 1114 or MAC 1147; Corequisite PHY 2053L

Note: Students in the health sciences are recommended to complete CHM 1033/1033L prior to registering for BSC 2085/2085L. Students in the biotechnology pathway must take BSC 2426/2426L prior to admission to the BS in Biological Sciences degree.

MATHEMATICS – 6 CREDITS REQUIRED
Select at least one course from the four State Core options.

State Core: 3 credits

MAC 1105	College Algebra	3	Pre-Req: MAT 1033
MAC 2311	Calculus & Analytical Geometry	5	Pre-Req: MAC1106 and MAC1114, or MAC1114 and MAC1140, or MAC1147
MGF 1130	Mathematical Thinking	3	Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
STA 2023	Statistical Methods	3	Pre-Req: MAT1033 or MGF 1131

MDC Core: 3 credits

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 1106	Integrated College and Precalculus Algebra	5	Prerequisite: MAT1033
MAC 1114	Trigonometry	3	Prerequisite: MAC 1105 or MAC 1106
MAC 1140	Pre-Calculus Algebra	3	Prerequisite: MAC 1105
MAC 1147	Pre-Calculus Algebra and Trigonometry	5	Prerequisite: MAC1105
MAC 2233	Business Calculus	3	Prerequisite: MAC 1105 or MAC1106
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MAC 2312	Calculus and Analytical Geometry 2	4	Prerequisite: MAC 2311
MAC 2313	Calculus and Analytic Geometry 3	4	Prerequisite: MAC 2312
MAD 1100	Discrete Mathematics for Computer Science	3	Prerequisite: MAC1105
MAD 2104	Discrete Mathematics	3	Prerequisite: MAC 1106 or MAC1140
MAP 2302	Introduction to Differential Equations	3	Prerequisite: MAC 2312
MAS 2103	Elementary Linear Algebra	3	Prerequisite: MAC 2311
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
MGF 1131	Mathematics in Context	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
QMB 2100	Basic Business Statistics (C)	3	Prerequisite: Acceptable score on the Algebra Placement test or equivalent
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

General Education Elective – 3 Credits Required (MET WITH A "C" LETTER GRADE OR HIGHER)

BSC 1005	General Education Biology	3
BSC 1005L	General Education Biology Laboratory	1
BSC 1084	Functional Human Anatomy	3
BSC 1949	Co-op Work Experience 1: BIO	3
BSC 2010	Principles of Biology	3
BSC 2010	Principles of Biology Laboratory	2
BSC 2011	Principles of Biology 2	3
BSC 2011L	Principles of Biology Laboratory 2	2
BSC 2020	Human Biology: Fundamentals of Anatomy/Physiology	3
BSC 2085	Human Anatomy and Physiology 1	3
BSC 2085L	Human Anatomy and Physiology 1 Laboratory	1
BSC 2086	Human Anatomy and Physiology 2	3
BSC 2086L	Human Anatomy and Physiology 2 Laboratory	1
BSC 2426	Biotechnology Methods and Applications 1	3
BSC 2426L	Biotechnology Methods and Applications 1 Lab	2
BSC 2427	Biotechnology Methods and Applications 2	3
BSC 2427L	Biotechnology Methods and Applications 2 Lab	2
BSC 2943L	Bioscience Internship	3-6
BSC 2949	Co-op Work Experience 2: BSC	3
CHM 1020	General Education Chemistry	3
CHM 1033	Chemistry for Health Sciences	3
CHM 1033L	Chemistry for Health Sciences Laboratory	1
CHM 1045	General Chemistry and Qualitative Analysis	3
CHM 1045L	General Chemistry and Qualitative Analysis Lab	2
CHM 1046	General Chemistry and Qualitative Analysis	3
CHM 1046L	General Chemistry and Qualitative Analysis Lab	2
CHM 1941	Principles & Techniques of Peer Tutoring in	1

	Chemistry	
CHM 1949	Co-op Work Experience 1: CHM	3
CHM 2200	Survey of Organic Chemistry	3
CHM 2200L	Survey of Organic Chemistry Laboratory	1
CHM 2210	Organic Chemistry 1	3
CHM 2210L	Organic Chemistry 1 Laboratory	2
CHM 2211	Organic Chemistry 2	3
CHM 2211L	Organic Chemistry 2 Laboratory	2
CHM 2949	Co-op Work Experience 2: CHM	3
MCB 2010	Microbiology	3
MCB 2010L	Microbiology Laboratory	2
PHY 1004	Physics with Applications 1	3
PHY 1004	Physics with Applications 1 Lab	1
PHY 1020	General Education Physics	3
PHY 1025	Basic Physics	3
PHY 2048	Physics with Calculus 1	4
PHY 2048L	Physics with Calculus 1 Laboratory	1
PHY 2049	Physics with Calculus 2	4
PHY 2049L	Physics with Calculus 2 Laboratory	1
PHY 2053	Physics (without Calculus) 1	3
PHY 2053L	Physics (without Calculus) 1 Lab	1
PHY 2054	Physics (without Calculus) 2	3
PHY 2054L	Physics (without Calculus) 2 Lab	1

LOWER DIVISION ELECTIVES – 24 Credits Required (MET WITH A "C" LETTER GRADE OR HIGHER)

Group A – Must take 9 Credits from the following group

BSC 1005	General Education Biology	3
BSC 1005L	General Education Biology Laboratory	1
BSC 1084	Functional Human Anatomy	3
BSC 1949	Co-op Work Experience 1: BIO	3
BSC 2010	Principles of Biology	3
BSC 2010	Principles of Biology Laboratory	2
BSC 2011	Principles of Biology 2	3
BSC 2011L	Principles of Biology Laboratory 2	2
BSC 2020	Human Biology: Fundamentals of Anatomy/Physiology	3
BSC 2085	Human Anatomy and Physiology 1	3
BSC 2085L	Human Anatomy and Physiology 1 Laboratory	1
BSC 2086	Human Anatomy and Physiology 2	3
BSC 2086L	Human Anatomy and Physiology 2 Laboratory	1
BSC 2426	Biotechnology Methods and Applications 1	3
BSC 2426L	Biotechnology Methods and Applications 1 Lab	2
BSC 2427	Biotechnology Methods and Applications 2	3
BSC 2427L	Biotechnology Methods and Applications 2 Lab	2
BSC 2943L	Bioscience Internship	3-6
BSC 2949	Co-op Work Experience 2: BSC	3

---AND---

Group B – Must take 9 credits from the following group

CHM 1020	General Education Chemistry	3
CHM 1033	Chemistry for Health Sciences	3
CHM 1033L	Chemistry for Health Sciences Laboratory	1
CHM 1045	General Chemistry and Qualitative Analysis	3
CHM 1045L	General Chemistry and Qualitative Analysis Lab	2
CHM 1046	General Chemistry and Qualitative Analysis	3
CHM 1046L	General Chemistry and Qualitative Analysis Lab	2
CHM 1941	Principles & Techniques of Peer Tutoring in Chemistry	1
CHM 1949	Co-op Work Experience 1: CHM	3
CHM 2200	Survey of Organic Chemistry	3
CHM 2200L	Survey of Organic Chemistry Laboratory	1
CHM 2210	Organic Chemistry 1	3
CHM 2210L	Organic Chemistry 1 Laboratory	2
CHM 2211	Organic Chemistry 2	3
CHM 2211L	Organic Chemistry 2 Laboratory	2

CHM 2949	Co-op Work Experience 2: CHM	3

---AND---

Group C – Must take 6 credits from the following group

AMH2010	BSC2010L	CHM2211	GLY1010	MAP2302	PHY2054L
AMH2020	BSC2011	CHM2211L	GLY1010L	MAS2103	POR1120
AMH2035	BSC2011L	CLP2000	GLY1100	MCB2010	POR1121
AML2010	BSC2020	CRW2001	HLP1081	MCB2010L	POS2041
AML2020	BSC2085	CRW2002	HUM1020	MET1010	POS2112
ANT2000	BSC2085L	DAN2100	HUN1201	MGF1130	PSC1121
ARC2701	BSC2086	DAN2130	INR2002	MGF1131	PSC1515
ARC2702	BSC2086L	DAN2131	ITA1120	MUH2111	PSY2012
ARH1000	BSC2426	DEP2000	ITA1121	MUH2112	QMB2100
ARH2050	BSC2426L	DEP2100	JPN1120	MUL1010	REL1210
ARH2051	BSC2427	ECO2013	JPN1121	MUL2380	REL1240
ARH2740	BSC2427L	ECO2023	LAH2021	OCB1010	RUS1120
ASL1140C	CHI1120	ECO2301	LIT2000	OCE1001	RUS1121
ASL1150C	CHI1121	EDF1005	LIT2090	PHI1100	SOP2002
ASL2210	CHM1020	ENC1101	LIT2120	PHI2010	SPC1017
ASL2220	CHM1025	ENC1102	MAC1105	PHI2600	SPC2601
ASL2400	CHM1025L	ENC2300	MAC1105L	PHY1004	SPC2608
ASL2430	CHM1033	ENG2012	MAC1106	PHY1004L	SPN1120
ASL2510	CHM1033L	ENL2012	MAC1114	PHY1020	SPN1121
AST1002	CHM1045	ENL2022	MAC1140	PHY1025	STA2023
BOT1010	CHM1045L	ESC1000	MAC1147	PHY2048	SYG2000
BOT1010L	CHM1046	EUH2032	MAC2233	PHY2048L	THE2000
BOT2150C	CHM1046L	EVR1001	MAC2311	PHY2049	WOH2012
BSC1005	CHM2200	FRE1120	MAC2312	PHY2049L	WOH2022
BSC1005L	CHM2200L	FRE1121	MAC2313	PHY2053	
BSC1084	CHM2210	GER1120	MAD1100	PHY2053L	
BSC2010	CHM2210L	GER1121	MAD2104	PHY2054	

MEDICAL LABORATORY TECHNOLOGY COURSES (0 credits)

Group A – Clinical Laboratory Sciences

MLT 1040L	Introduction to Medical Laboratory Technology	1
MLT 1210C	Clinical Urinalysis with Lab	2
MLT 1300	Clinical Hematology	2
MLT 1300L	Clinical Hematology Laboratory	2
MLT 1752	Quality Control Laboratory Mathematics	2
MLT 1500	Clinical Immunology/Serology	2
MLT 1500L	Clinical Immunology/Serology Laboratory	1
MLT 1610	Clinical Chemistry 1	2
MLT 1610L	Clinical Chemistry 1 Laboratory	2
MLT 2440	Clinical Microbiology 1	1
MLT 2440L	Clinical Microbiology Lab 1	1
MLT 1330	Clinical Coagulation	1
MLT 1330L	Clinical Coagulation Laboratory	1
MLT 2525	Immunohematology	2
MLT 2525L	Immunohematology Laboratory	2
MLT 2403	Clinical Microbiology 2	2
MLT 2403L	Clinical Microbiology Lab 2	2
MLT 2620	Clinical Chemistry 2	2
MLT 2620L	Clinical Chemistry 2 Laboratory	1
MLT 2624L	Special Techniques in Clinical Chemistry	2
MLT 2807L	Hospital Practicum: Immunohematology	3
MLT 2809L	Hospital Practicum: Hematology	3
MLT 2810L	Hospital Practicum: Chemistry	3
MLT 2811L	Hospital Practicum: Microbiology	3
MLT 2930	Medical Laboratory Technology Seminar	2

MEDICAL LABORATORY TECHNOLOGY VALIDATION - 27 Credits Required

MLS 3997 - Validated Medical Laboratory Technology Course

UPPER DIVISION REQUIREMENTS – 19 Credits Required 27

HSC 3057	Research Methods and Issues in Health Science	3
HSC 3655	Theoretical Foundations of Health Care Ethics	3

HSC 3701	Leadership and Management in Healthcare	3
MLS 4193	Clinical Molecular Diagnostics	3
MLS 4621	Clinical Biochemistry	4
MLS 4705	Laboratory Operations and Management	3

DISCIPLINE CONTENT CORE - 21 Credits Required

Group A – Clinical Laboratory Sciences

MLS 4221	Clinical Urinalysis	3
MLS 4306	Clinical Hematology	3
MLS 4335	Clinical Hemostasis	3
MLS 4461	Clinical Diagnostic Microbiology	3
MLS 4506	Clinical Immunology	3
MLS 4552	Clinical Immunohematology	3
MLS 4630	Clinical Chemistry	3

MEDICAL LABORATORY SCIENCES SPECIAL TOPICS – 3 Credits Required

MLS 3150	Special Topics in Medical Laboratory Science

Miami Dade College

Film, Television and Digital Production
Bachelor of Applied Science | P9220 | 120 credits
CIP (1105006021**)**
Effective Term: Fall Term 2025 (2257)

The Bachelor of Applied Science (B.A.S.) in Film, Television and Digital Production is a flexible baccalaureate program intended to accommodate the unique demands for entry and advancement within specific workforce sectors. The B.A.S. program provides degree advancement opportunities for students with the Associate in Science in Film Production Technology. Students learn advanced, practical, and hands-on training necessary in today's film, television and digital media production workforce. Students further their knowledge in the latest technologies giving them the experience to successfully achieve their academic goals and professional aspirations. Students who graduate with the Bachelor of Applied Science in Film, Television & Digital Production will be prepared to gain immediate employment with film and/or television production companies as producers, directors, technical directors, production managers, camera operators, cinematographers, writers, researchers, editors and sound engineers, as well as be prepared for graduate school in digital media production.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS – 36 Credits Required			
Courses require a grade of "C" or higher to satisfy the general education requirement.			
Communications – 6 Credits Required			
ENC 1101	English Composition 1 (WC)	3	Pre-Req Placement score or exemption
ENC 1102	English Composition 2 (WC)	3	Pre-Req ENC 1101
Oral Communications – 3 Credits Required			
Select one course from the following offerings.			
ENC 2300	Advanced Composition & Communication (WC)	3	Pre-Req ENC 1101, 1102
SPC 1017	Fundamentals of Speech Communications (WC)	3	
SPC 2608	Introduction to Public Speaking (WC)	3	
Humanities – 6 Credits Required			
State Core 3			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature (WC)	3	Pre-Req ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy (WC)	3	Pre-Req ENC 1101
THE 2000	Theatre Appreciation (WC)	3	
---AND---			
MDC Core 3			
ARC 2701	History of Architecture 1	3	
ARC 2702	History of Architecture 2 (WC)	3	
ARH 1000	Art Appreciation	3	
ARH 2050	Art History 1	3	
ARH 2051	Art History 2 (WC)	3	Pre-Req ARH 2050
ARH 2740	Cinema Appreciation (WC)	3	
DAN 2100	Dance Appreciation	3	
DAN 2130	Dance History 1 (WC)	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature (WC)	3	Pre-Req ENC 1101
LIT 2120	A Survey of World Literature (WC)	3	Pre-Req ENC 1101, 1102
MUH 2111	Survey of Music History 1	3	
MUH 2112	Survey of Music History 2 (WC)	3	Pre-Req MUH 2111
MUL 1010	Music Appreciation	3	
MUL 2380	Jazz & Popular Music in America (WC)	3	
PHI 2010	Introduction to Philosophy(WC)	3	Pre-Req ENC 1101
PHI 2600	Introduction to Ethics (WC)	3	Pre-Req ENC 1101

THE 2000	Theatre Appreciation (WC)	3

Behavioral and Social Science – 6 Credits Required
Select at least one course from the State Core options. To meet the Civic Literacy Competency Requirement for graduation one course selection should be AMH 2010 or AMH 2020 or POS 2041.

State Core (3 credits)

AMH 2010	History of the US to 1877	3
AMH 2020	History of the US Since 1877	3
ANT 2000	Introduction to Anthropology	3
ECO 2013	Principles of Economics (Macro)	3
POS 2041	American Federal Government	3
PSY 2012	Introduction to Psychology	3

MDC Core (3 credits)

AMH 2010	History of the US to 1877	3
AMH 2020	History of the US Since 1877	3
ANT 2000	Introduction to Anthropology	3
DEP 2000	Human Growth and Development	3
ECO 2013	Principles of Economics (Macro)	3
POS 2041	American Federal Government	3
PSY 2012	Introduction to Psychology	3
SYG 2000	Introduction to Sociology	3
WOH 2012	History of World Civilization to 1789	3
WOH 2022	History of World Civilization From 1789	3

Natural Science – 6 Credits Require
Select at least 1 course from the 13 State Core options. Lab Credits are not allowed in this area.

State Core 3 Credits

AST 1002	Descriptive Astronomy	3
BSC 1005	General Education Biology	3
BSC 2010	Principles of Biology	3
BSC 2085	Human Anatomy and Physiology I	3
CHM 1020	General Education Chemistry	3
CHM 1045	General Chemistry & Qualitative Analysis	3
ESC 1000	General Education Earth Science	3
EVR 1001	Introduction to Environmental Science	3
GLY 1010	Physical Geology	3
OCE 1001	Introduction to Oceanography	3
PHY 1020	General Education Physics	3
PHY 2048	Physics with Calculus 1	4
PHY 2053	Physics (without Calculus) 1	3

AND
MDC Core 3 Credits

AST 1002	Descriptive Astronomy	3
BOT 1010	Botany	3
BSC 1005	General Education Biology	3
BSC 1084	Functional Human Anatomy	3
BSC 2010	Principles of Biology	3
BSC 2020	Human Biology: Fundamentals of Anatomy/Physiology	3
BSC 2085	Anatomy and Physiology I	3
CHM1020	General Education Chemistry	3
CHM1025	Introductory Chemistry	3
CHM1033	Chemistry for Health Sciences	3
CHM1045	General Chemistry and Qualitative Analysis	3
CHM1046	General Chemistry and Qualitative Analysis	3
CHM2200	Survey of Organic Chemistry	3
CHM2210	Organic Chemistry 1	3
CHM2211	Organic Chemistry 2	3
ESC 1000	General Education Earth Science	3
EVR 1001	Introduction to Environmental Science	3
GLY 1010	Physical Geology	3

GLY1100	Historical Geology	3	
HUN 1201	Essentials of Human Nutrition	3	
MET1010	Introduction to Weather	3	
OCB 1010	Introduction to Marine Biology	3	
OCE 1001	Introduction to Oceanography	3	
PHY1004	Physics with Applications 1	3	
PHY1020	General Education Physics	3	
PHY1025	Basic Physics	3	
PHY2048	Physics with Calculus 1	4	
PHY2049	Physics with Calculus 2	4	
PHY2053	Physics (without Calculus) 1	3	
PHY2054	Physics (without Calculus) 2	3	
PSC 1121	General Education Physical Science	3	
PSC 1515	Energy in the Natural Environment	3	

Mathematics – 6 Credits Required
Select one course from STATE CORE **AND** one course from MDC CORE.

State Core 3

MAC 1105	College Algebra (CC)	3	Pre-Req MAT 1033 or placement score
MAC 2311	Calc & Analytical Geometry 1 (CC)	5	Pre-Req MAC1140 & MAC1114 or MAC1147
MGF 1130	Mathematical Thinking	3	Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
STA 2023	Statistical Methods	3	Pre-Req MAT1033 or MGF 1131

---AND---

MDC Core 3 Credits

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 1106	Integrated College and Precalculus Algebra	5	Prerequisite: MAT1033
MAC 1114	Trigonometry	3	Prerequisite: MAC 1105 or MAC 1106
MAC 1140	Pre-Calculus Algebra	3	Prerequisite: MAC 1105
MAC 1147	Pre-Calculus Algebra and Trigonometry	5	Prerequisite: MAC1105
MAC 2233	Business Calculus	3	Prerequisite: MAC 1105 or MAC1106
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MAC 2312	Calculus and Analytical Geometry 2	4	Prerequisite: MAC 2311
MAC 2313	Calculus and Analytic Geometry 3	4	Prerequisite: MAC 2312
MAD 1100	Discrete Mathematics for Computer Science	3	Prerequisite: MAC1105
MAD 2104	Discrete Mathematics	3	Prerequisite: MAC 1106 or MAC1140
MAP 2302	Introduction to Differential Equations	3	Prerequisite: MAC 2312
MAS 2103	Elementary Linear Algebra	3	Prerequisite: MAC 2311
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
MGF 1131	Mathematics in Context	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
QMB 2100	Basic Business Statistics (C)	3	Prerequisite: Acceptable score on the Algebra placement test or equivalent

STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

General Education Elective – 3 Credits Required

AMH2010	BSC2010L	CHM2211	GLY1010	MAP2302	PHY2054L
AMH2020	BSC2011	CHM2211L	GLY1010L	MAS2103	POR1120
AMH2035	BSC2011L	CLP2000	GLY1100	MCB2010	POR1121
AML2010	BSC2020	CRW2001	HLP1081	MCB2010L	POS2041
AML2020	BSC2085	CRW2002	HUM1020	MET1010	POS2112
ANT2000	BSC2085L	DAN2100	HUN1201	MGF1130	PSC1121
ARC2701	BSC2086	DAN2130	INR2002	MGF1131	PSC1515
ARC2702	BSC2086L	DAN2131	ITA1120	MUH2111	PSY2012
ARH1000	BSC2426	DEP2000	ITA1121	MUH2112	QMB2100
ARH2050	BSC2426L	DEP2100	JPN1120	MUL1010	REL1210
ARH2051	BSC2427	ECO2013	JPN1121	MUL2380	REL1240
ARH2740	BSC2427L	ECO2023	LAH2021	OCB1010	RUS1120
ASL1140C	CHI1120	ECO2301	LIT2000	OCE1001	RUS1121
ASL1150C	CHI1121	EDF1005	LIT2090	PHI1100	SOP2002
ASL2210	CHM1020	ENC1101	LIT2120	PHI2010	SPC1017
ASL2220	CHM1025	ENC1102	MAC1105	PHI2600	SPC2601
ASL2400	CHM1025L	ENC2300	MAC1105L	PHY1004	SPC2608
ASL2430	CHM1033	ENG2012	MAC1106	PHY1004L	SPN1120
ASL2510	CHM1033L	ENL2012	MAC1114	PHY1020	SPN1121
AST1002	CHM1045	ENL2022	MAC1140	PHY1025	STA2023
BOT1010	CHM1045L	ESC1000	MAC1147	PHY2048	SYG2000
BOT1010L	CHM1046	EUH2032	MAC2233	PHY2048L	THE2000
BOT2150C	CHM1046L	EVR1001	MAC2311	PHY2049	WOH2012
BSC1005	CHM2200	FRE1120	MAC2312	PHY2049L	WOH2022
BSC1005L	CHM2200L	FRE1121	MAC2313	PHY2053	
BSC1084	CHM2210	GER1120	MAD1100	PHY2053L	
BSC2010	CHM2210L	GER1121	MAD2104	PHY2054	

NOTE: Courses in bold may fulfill other college requirements, including computer competency and foreign language. See those sections for details.

LOWER DIVISION PREREQUISITE REQUIREMENTS – 43 Credits Required

FIL 1030	History of Film	3	
FIL 1100	Screenwriting 1	3	
FIL 1420C	Film Production 1	4	Co-Req: FIL 2552C
FIL 1431C	Film Production 2	4	Pre-Req: FIL 1420C & Co-Req: FIL 2553C
FIL 2131	Screenwriting 2	3	Pre-Req: FIL 1100
FIL 2552C	Editing: Level 1	3	
FIL 2553C	Editing: Level 2	3	Pre-Req: FIL 2552C
FIL 2560C	Editing: Level 3	3	Pre-Req: FIL 2553C
FIL 2480C	Film Production 3	4	Pre-Req: FIL 1431C & RTV 1240C
FIL 2515C	Film Production 4	4	Pre-Req: FIL 2480C
FIL 2611	Film Business, Marketing, Distribution & Exhibition	3	
RTV 1240C	Sound Design	3	
VIC 1000	Visual Communications	3	
--- OR ---			
MMC 2000	Introduction to Mass Comm	3	
RTV 1000	Fundamentals of Broadcasting	3	
RTV 1240C	Sound Design	3	
RTV 1241C	TV Studio Production 1	4	
RTV 1242C	TV Studio Production 2	4	Pre-Req: RTV 1241C
RTV 2243C	TV Directing	3	Pre-Req: RTV 1242C
RTV 2245C	Electronic Field Production 1	4	Pre-Req: RTV 1242C
RTV 2246C	Electronic Field Production 2	4	Pre-Req: RTV 2245C
RTV 2300	Broadcast Writing	3	
FIL 2552C	Editing: Level 1	3	
FIL 2553C	Editing: Level 2	3	Pre-Req: FIL 2552C
FIL 2560C	Editing: Level 3	3	Pre-Req: FIL 2553C
VIC 1000	Visual Communications	3	

Lower Division Electives – 6 Credits Required

FIL 1030	History of Film***	3	
FIL 1100	Screenwriting 1***	3	
FIL 1055	American Independent Cinema	3	
FIL 1060	Survey of Documentary Film	3	
FIL 2413	Screenwriting 3	3	
FIL 2945	Film Internship	3	
FIL 2990	Special Topics	3	
FIL 2950	Film Festival Experience	3	
TPP*	Acting	3	
RTV 2940	TV Internship	3	
RTV 2942	Spring TV Practicum	3	

***** Courses are State Pre-Requisites. Only TV majors may take them as electives**

UPPER DIVISION REQUIREMENTS – 32 Credits Required

DIG 3255C	Advanced Sound Design	3	Pre-Req: RTV 1240C
DIG 3347C	Advanced Cinematography	3	Pre-Req: FIL 2515C OR RTV 2246C
DIG 4345C	Digital Effects and Compositing	3	
FIL 3602	Production Management	3	Pre-Req: FIL 2611 OR MMC 2000
FIL 3651	Business Proposals for Film & Television	3	Pre-Req: FIL 2611 OR MMC 2000
FIL 4164	Advanced Film & Television Writing	3	Pre-Req: FIL 2131 OR RTV 2300
FIL 4585C	Production Workshop 1	4	Pre-Req: DIG 3347C AND FIL 3602
FIL 4586C	Production Workshop 2	4	Pre-Req: FIL 4585C
RTV 3810C	Broadcast Design & On Air Promotions	3	
RTV 3277C	Advanced Television Studio Workshop	3	Pre-Req: FIL 2515C OR RTV 2246C

Upper Division Electives: (3 Credits Required)

DIG3940	Upper Division Internship	3
RTV3263C	Advanced Post Production	3
RTV3408	Ethics & Research for Non Fiction Scripts	3
RTV3203	The Telemundo Academy	3

Computer Competency Requirement
Students must satisfy the requirement by successfully completing a course (CGS1060C or CTS0050, an equivalent college credit course), or passing MDC's Computer Skills Placement examination, or a test exemption.

Foreign Language Competency Requirement
Students must fulfill this requirement via three options:

Option A: Successful completion of two (2) credits (i.e., the equivalent of two years) in one (1) foreign language at the secondary (high school) level.
---**OR---**
Option B: Successful completion of the following courses at the elementary 2 level: ASL1150C, CHI1121, FRE1121, GER1121, ITA1121, JPN1121, POR1121, RUS1121, SPN1121. These credits count towards the Lower Division Requirements area.
---**OR---**
Option C: Students may demonstrate completion of the elementary 2 level through standardized examination that document the required foreign language competency.

IMPORTANT INFORMATION

Program Credits Composition

General Education Requirements	36 credits
Lower Division Requirements	43 credits
Upper Division Requirements	32 credits
Elective Requirements	9 credits
Total credits required for graduation	120 credits

Civic Literacy Competency: First time in college students for the 2018-2019 school year and thereafter must demonstrate competency in civic literacy to earn a baccalaureate. This requirement may be satisfied by passing AMH2020 or POS2041 (listed under the Social Sciences area), or an equivalent AP or CLEP exam.
Computer Competency: All MDC degree-seeking students with 16 or more credits must demonstrate computer competency prior to graduation. Students demonstrate this competency by passing the MDC computer

competency test, currently known as CSP (Computer Skills Placement) examination or by enrolling in and successfully completing an equivalent course.

Foreign Language: Students admitted to the baccalaureate degree program without meeting the foreign language admissions requirement of at least 2 courses (8-10 credit hours) of sequential foreign language at the secondary level or the equivalent of such instruction at the postsecondary level must earn such credits prior to graduation.

Required Credit Hours and GPA: The baccalaureate requires student to earn a minimum of 120 unduplicated credit hours with a minimum cumulative grade point average of 2.0. All general education and all upper division requirements must be passed with the grade of "C" or better.
Pursuing or Have Earned an Associate's Degree: Students entering with an AS or AAS degree may have more than 24 elective credits and may need additional General Education credits to meet the 36 General Education credits required for the baccalaureate degree. Students entering with an AA degree may need additional electives to provide appropriate background for the baccalaureate program.

Graduation Requirements: This Program Sheet is effective for academic year 2020/2021. Additional requirements apply, which include, but are not limited to Gordon Rule (college level communication and computational skills) and residency (number of credits that must be earned at MDC). Students should review their individualized Degree Audit Report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami Dade College. Students are highly encouraged to meet with their academic advisor on a regular basis and review the College Catalog to learn about all requirements to receive the baccalaureate. The final responsibility for meeting graduation requirements rests with the student.

Miami Dade College

Health Science – Histotechnology Concentration
Bachelor of Applied Science | Code: P9212 | 130 credits
CIP (1105100002**)**
Effective Term: Fall 2024 (2247)

The Bachelor of Applied Science (B.A.S.) in Health Sciences with concentration in Histotechnology is designed to accommodate the unique demands for entry and advancement within the health science industry. Histotechnologists process patient samples for the detection of tissue abnormalities in order to determine the best treatment for the diseases causing the abnormalities. In addition to the dyes and chemicals used to prepare and stain tissues for microscopy, immunological and DNA techniques are utilized to determine specific cell types in tumors. Histotechnologists work in conjunction with the pathology department at a variety of hospital, surgical and clinical locations. Upon completion of the program and the attainment of certification and license, histotechnologists are employed in a variety of health-care settings with the opportunity of upward mobility to supervisory and management positions. Histotechnologist program graduates are eligible for certification by the American Society for Clinical Pathology (ASCP).

Course	Course Title	Credits	Pre-/Co-Requisites GENERAL
EDUCATION REQUIREMENTS – 36 Credits Required (MET WITH A GRADE of "C" OR HIGHER)			
Communications – 6 Credits Required			
ENC 1101	English Composition 1	3	
ENC 1102	English Composition 2	3	Pre-Req ENC 1101
Oral Communication – 3 Credits Required			
Select 3 Credits from the following			
ENC 2300	Advanced Composition & Communication	3	Pre-Req ENC 1101, 1102
SPC 1017	Fundamentals of Speech Communications	3	
SPC 2608	Introduction to Public Speaking	3	
Humanities – 6 Credits Required			
Group A – Select 3 Credits from the following (State Core):			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theater Appreciation	3	
---A**ND---**			
Group B – Select 3 Credits from the following (MDC Core):			
ARC 2701	History of Architecture 1	3	
ARC 2702	History of Architecture 2	3	
ARH 1000	Art Appreciation	3	
ARH 2050	Art History 1	3	Pre-Req ARH 2050
ARH 2051	Art History 2	3	
ARH 2740	Cinema Appreciation	3	
DAN 2100	Dance Appreciation	3	
DAN 2130	Dance History 1	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	
LIT 2120	A Survey of World Literature	3	Pre-Req ENC 1101 or ENC 1102 or Equivalent
MUH 2111	Survey of Music History 1	3	
MUH 2112	Survey of Music History 2	3	Pre-Req MUH 2112
MUL 1010	Music Appreciation	3	
MUL 2380	Jazz and Popular Music in America	3	
PHI 2010	Introduction to Philosophy	3	
PHI 2600	Introduction to Ethics	3	
THE 2000	Theater Appreciation	3	

Behavioral and Social Science – 6 Credits Required
Group A – Select 3 Credits from the following:
Must take 3.0 credits from the following group.

AMH 2010	History of the US to 1877	3
AMH 2020	History of the US Since 1877	3
ANT 2000	Introduction to Anthropology	3
ECO 2013	Principles of Economics (Macro)	3
POS 2041	American Federal Government	3
PSY 2012	Introduction to Psychology	3

---AND---
Must take 3.0 credits from the following group.

AMH 2010	History of the US to 1877	3
AMH 2020	History of the US Since 1877	3
ANT 2000	Introduction to Anthropology	3
2000	Human Growth and Development	3
ECO 2013	Principles of Economics (Macro)	3
POS 2041	American Federal Government	3
PSY 2012	Introduction to Psychology	3
SYG 2000	Introduction to Sociology	3
WOH 2012	History of World Civilization to 1789	3
WOH 2022	History of World Civilization From 1789	3

NATURAL SCIENCES 6 Credits*
Select at least 1 course from the 13 State Core options. Lab Credits are not allowed in this area.

State Core 3 Credits

BSC 2010	Principles of Biology	3	Corequisite: BSC2010L
BSC 2085	Human Anatomy and Physiology I	3	Corequisite: BSC2085L
CHM 1020	General Education Chemistry	3	
CHM 1045	General Chemistry & Qualitative Analysis	3	Prerequisite: CHM1025 or a passing score on the CART exam, MAC1105. Corequisite: CHM1045L
PHY 1020	General Education Physics	3	
PHY 2048	Physics with Calculus 1	4	Prerequisites: High school physics or PHY1025, PHY2053 or Departmental Approval and MAC2311; Corequisite: PHY 2048L
PHY 2053	Physics (without Calculus) 1	3	Prerequisite: MAC1114 or MAC1147; Corequisite PHY2053L

MDC Core 3 Credits

BSC 2085	Human Anatomy and Physiology I	3	Corequisite: BSC2085L
CHM1033	Chemistry for Health Sciences	3	Prerequisite: MAT 1033; Corequisite: CHM1033L.
CHM 1045	General Chemistry & Qualitative Analysis	3	Prerequisite: CHM1025 or a passing score on the CART exam, MAC1105. Corequisite: CHM 1045L

NOTE: Students in the Health Sciences are recommended to complete CHM 1033/1033L prior to registering for BSC 2085/2085L. Students in the Biotechnology Pathway must take BSC 2426/2426L prior to admission to the BS in Biological Sciences degree.

Mathematics – 6 Credits Required
Group A Must take 3 credits from the following group (State Core):

MAC 1105	College Algebra	3	Pre-Req MAT 1033
MAC 2311	Calculus & Analytical Geometry	5	Pre-Req MAC1106 and MAC1114, or MAC1114 and MAC1140, or MAC1147
MGF 1130	Mathematical Thinking	3	Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
STA 2023	Statistical Methods	3	Pre-Req: MAT1033 or MGF 1131

---AN**D---**

Group B Must take 3 credits from the following group (MDC Core):

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 1106	Integrated College and Precalculus Algebra	5	Prerequisite: MAT1033
MAC 1114	Trigonometry	3	Prerequisite: MAC 1105 or MAC 1106
MAC 1140	Pre-Calculus Algebra	3	Prerequisite: MAC 1105
MAC 1147	Pre-Calculus Algebra and Trigonometry	5	Prerequisite: MAC1105
MAC 2233	Business Calculus	3	Prerequisite: MAC 1105 or MAC1106
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MAC 2312	Calculus and Analytical Geometry 2	4	Prerequisite: MAC 2311
MAC 2313	Calculus and Analytic Geometry 3	4	Prerequisite: MAC 2312
MAD 1100	Discrete Mathematics for Computer Science	3	Prerequisite: MAC1105
MAD 2104	Discrete Mathematics	3	Prerequisite: MAC 1106 or MAC1140
MAP 2302	Introduction to Differential Equations	3	Prerequisite: MAC 2312
MAS 2103	Elementary Linear Algebra	3	Prerequisite: MAC 2311
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
MGF 1131	Mathematics in Context	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
QMB 2100	Basic Business Statistics (C)	3	Prerequisite: Acceptable score on the Algebra placement test or equivalent
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

General Education Elective – 3 Credits Required (MET WITH A "C" LETTER GRADE OR HIGHER)

BSC 1005	General Education Biology	3
BSC 1005L	General Education Biology Laboratory	1
BSC 1084	Functional Human Anatomy	3
BSC 1949	Co-op Work Experience 1: BIO	3
BSC 2010	Principles of Biology	3
BSC 2010	Principles of Biology Laboratory	2
BSC 2011	Principles of Biology 2	3
BSC 2011L	Principles of Biology Laboratory 2	2
BSC 2020	Human Biology: Fundamentals of Anatomy/Physiology	3
BSC 2085	Human Anatomy and Physiology 1	3
BSC 2085L	Human Anatomy and Physiology 1 Laboratory	1
BSC 2086	Human Anatomy and Physiology 2	3
BSC 2086L	Human Anatomy and Physiology 2 Laboratory	1
BSC 2426	Biotechnology Methods and Applications 1	3
BSC 2426L	Biotechnology Methods and Applications 1 Lab	2
BSC 2427	Biotechnology Methods and Applications 2	3
BSC 2427L	Biotechnology Methods and Applications 2 Lab	2
BSC 2943L	Bioscience Internship	3-6
BSC 2949	Co-op Work Experience 2: BSC	3
CHM 1020	General Education Chemistry	3
CHM 1033	Chemistry for Health Sciences	3
CHM 1033L	Chemistry for Health Sciences Laboratory	1
CHM 1045	General Chemistry and Qualitative Analysis	3
CHM 1045L	General Chemistry and Qualitative Analysis Lab	2
CHM 1046	General Chemistry and Qualitative Analysis	3
CHM 1046L	General Chemistry and Qualitative Analysis Lab	2
CHM 1941	Principles & Techniques of Peer Tutoring in	1

	Chemistry	
CHM 1949	Co-op Work Experience 1: CHM	3
CHM 2200	Survey of Organic Chemistry	3
CHM 2200L	Survey of Organic Chemistry Laboratory	1
CHM 2210	Organic Chemistry 1	3
CHM 2210L	Organic Chemistry 1 Laboratory	2
CHM 2211	Organic Chemistry 2	3
CHM 2211L	Organic Chemistry 2 Laboratory	2
CHM 2949	Co-op Work Experience 2: CHM	3
MCB 2010	Microbiology	3
MCB 2010L	Microbiology Laboratory	2
PHY 1004	Physics with Applications 1	3
PHY 1004	Physics with Applications 1 Lab	1
PHY 1020	General Education Physics	3
PHY 1025	Basic Physics	3
PHY 2048	Physics with Calculus 1	4
PHY 2048L	Physics with Calculus 1 Laboratory	1
PHY 2049	Physics with Calculus 2	4
PHY 2049L	Physics with Calculus 2 Laboratory	1
PHY 2053	Physics (without Calculus) 1	3
PHY 2053L	Physics (without Calculus) 1 Lab	1
PHY 2054	Physics (without Calculus) 2	3
PHY 2054L	Physics (without Calculus) 2 Lab	1

LOWER DIVISION ELECTIVES – 24 Credits Required (MET WITH A "C" LETTER GRADE OR HIGHER)

Group A – Must take 9 Credits from the following group

BSC 1005	General Education Biology	3
BSC 1005L	General Education Biology Laboratory	1
BSC 1084	Functional Human Anatomy	3
BSC 1949	Co-op Work Experience 1: BIO	3
BSC 2010	Principles of Biology	3
BSC 2010	Principles of Biology Laboratory	2
BSC 2011	Principles of Biology 2	3
BSC 2011L	Principles of Biology Laboratory 2	2
BSC 2020	Human Biology: Fundamentals of Anatomy/Physiology	3
BSC 2085	Human Anatomy and Physiology 1	3
BSC 2085L	Human Anatomy and Physiology 1 Laboratory	1
BSC 2086	Human Anatomy and Physiology 2	3
BSC 2086L	Human Anatomy and Physiology 2 Laboratory	1
BSC 2426	Biotechnology Methods and Applications 1	3
BSC 2426L	Biotechnology Methods and Applications 1 Lab	2
BSC 2427	Biotechnology Methods and Applications 2	3
BSC 2427L	Biotechnology Methods and Applications 2 Lab	2
BSC 2943L	Bioscience Internship	3-6
BSC 2949	Co-op Work Experience 2: BSC	3

- - **AND- -**

Group B – Must take 9 credits from the following group

CHM 1020	General Education Chemistry	3
CHM 1033	Chemistry for Health Sciences	3
CHM 1033L	Chemistry for Health Sciences Laboratory	1
CHM 1045	General Chemistry and Qualitative Analysis	3
CHM 1045L	General Chemistry and Qualitative Analysis Lab	2
CHM 1046	General Chemistry and Qualitative Analysis	3
CHM 1046L	General Chemistry and Qualitative Analysis Lab	2
CHM 1941	Principles & Techniques of Peer Tutoring in Chemistry	1
CHM 1949	Co-op Work Experience 1: CHM	3
CHM 2200	Survey of Organic Chemistry	3
CHM 2200L	Survey of Organic Chemistry Laboratory	1
CHM 2210	Organic Chemistry 1	3
CHM 2210L	Organic Chemistry 1 Laboratory	2
CHM 2211	Organic Chemistry 2	3
CHM 2211L	Organic Chemistry 2 Laboratory	2

CHM 2949	Co-op Work Experience 2: CHM	3

- -**AND** - -

Group C – Must take 6 credits from the following group

AMH2010	BSC2010L	CHM2211	GLY1010	MAP2302	PHY2054L
AMH2020	BSC2011	CHM2211L	GLY1010L	MAS2103	POR1120
AMH2035	BSC2011L	CLP2000	GLY1100	MCB2010	POR1121
AML2010	BSC2020	CRW2001	HLP1081	MCB2010L	POS2041
AML2020	BSC2085	CRW2002	HUM1020	MET1010	POS2112
ANT2000	BSC2085L	DAN2100	HUN1201	MGF1130	PSC1121
ARC2701	BSC2086	DAN2130	INR2002	MGF1131	PSC1515
ARC2702	BSC2086L	DAN2131	ITA1120	MUH2111	PSY2012
ARH1000	BSC2426	DEP2000	ITA1121	MUH2112	QMB2100
ARH2050	BSC2426L	DEP2100	JPN1120	MUL1010	REL1210
ARH2051	BSC2427	ECO2013	JPN1121	MUL2380	REL1240
ARH2740	BSC2427L	ECO2023	LAH2021	OCB1010	RUS1120
ASL1140C	CHI1120	ECO2301	LIT2000	OCE1001	RUS1121
ASL1150C	CHI1121	EDF1005	LIT2090	PHI1100	SOP2002
ASL2210	CHM1020	ENC1101	LIT2120	PHI2010	SPC1017
ASL2220	CHM1025	ENC1102	MAC1105	PHI2600	SPC2601
ASL2400	CHM1025L	ENC2300	MAC1105L	PHY1004	SPC2608
ASL2430	CHM1033	ENG2012	MAC1106	PHY1004L	SPN1120
ASL2510	CHM1033L	ENL2012	MAC1114	PHY1020	SPN1121
AST1002	CHM1045	ENL2022	MAC1140	PHY1025	STA2023
BOT1010	CHM1045L	ESC1000	MAC1147	PHY2048	SYG2000
BOT1010L	CHM1046	EUH2032	MAC2233	PHY2048L	THE2000
BOT2150C	CHM1046L	EVR1001	MAC2311	PHY2049	WOH2012
BSC1005	CHM2200	FRE1120	MAC2312	PHY2049L	WOH2022
BSC1005L	CHM2200L	FRE1121	MAC2313	PHY2053	
BSC1084	CHM2210	GER1120	MAD1100	PHY2053L	
BSC2010	CHM2210L	GER1121	MAD2104	PHY2054	

HISTOTECHNOLOGY COURSES (0 credits)

MLT 1752	Quality Control Laboratory Mathematics	2
MLT 1191	Histotechnology 1	3
MLT 1191L	Histotechnology 1 Lab	2
MLT 1195C	Tissue Identification 1	3
MLT 1196	Laboratory Safety and Regulations	2
MLT 2192	Histotechnology 2	3
MLT 2192L	Histotechnology 2 Laboratory	2
MLT 2197C	Tissue Identification 2	4
MLT 2180C	Infectious Diseases & Control Practices	3
MLT 2198	Histochemistry	3
MLT 2198L	Histochemistry Laboratory	2
MLT 1840L	Histotechnology Practicum 1	5
MLT 2841L	Histotechnology Practicum 2	5
MLT 2931	Histotechnology Seminar	2

HISTOTECHNOLOGY VALIDATION - 27 Credits Required

MLS 3997 - Validated Medical Laboratory Technology Course	27

UPPER DIVISION REQUIREMENTS – 19 Credits Required

HSC 3057	Research Methods and Issues in Health Science	3
HSC 3655	Theoretical Foundations of Health Care Ethics	3
HSC 3701	Leadership and Management in Healthcare	3
MLS 4193	Clinical Molecular Diagnostics	3
MLS 4621	Clinical Biochemistry	4
MLS 4705	Laboratory Operations and Management	3

DISCIPLINE CONTENT CORE - 21 Credits Required

Group A – Histotechnology Courses

MLS 4181C	Immunohistochemistry	3
MLS 4195C	Enzyme Histochemistry	3
MLS 4196C	IN-SITU Hybridization or FISH	3
MLS 4198	Immunohistochemistry Clinical Concentration	5

MLS 4910	Advances in Histotechnology Capstone	7

HISTOTECHNOLOGY SPECIAL TOPICS – 3 Credits Required

MLS 3150	Special Topics in Histotechnology	3

Miami Dade College

Health Science – Physician Assistant Studies Concentration
Bachelor of Applied Science | Code: P9210 | 130 credits
CIP (1105100002**)**
Effective Term: Fall 2025 (2257)

The Bachelor of Applied Science in Health Science Physician Assistant Studies Concentration is designed to address the critical shortage of healthcare professionals by providing graduates a continuance of technical, supervisory, and management skills necessary to meet workforce needs and labor market projections. Students will be provided with opportunities to develop discipline-specific medical skills and to expand their knowledge by participating in structured clinical experiences under the supervision of Physician Assistants and physicians.

Course	Course Title	Credits	Pre-/Co-Requisites
I. GENERAL EDUCATION REQUIREMENTS – 36 CREDITS REQUIRED			
Communications – 6 Credits Required			
ENC 1101	English Composition 1	3	
ENC 1102	English Composition 2	3	Pre-Req: ENC 1101
Oral Communication – 3 Credits Required			
Select 3 Credits from the following			
ENC 2300	Advanced Composition & Communication	3	Pre-Req: ENC 1101, 1102
SPC 1017	Fundamentals of Speech Communications	3	
SPC 2608	Introduction to Public Speaking	3	
Humanities – 6 Credits Required			
Group A – Select 3 Credits from the following (State Core):			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theater Appreciation	3	
---AND---			
Group B – Select 3 Credits from the following (MDC Core):			
ARC 2701	History of Architecture 1	3	
ARC 2702	History of Architecture 2	3	
ARH 1000	Art Appreciation	3	
ARH 2050	Art History 1	3	Pre-Req: ARH 2050
ARH 2051	Art History 2	3	
ARH 2740	Cinema Appreciation	3	
DAN 2100	Dance Appreciation	3	
DAN 2130	Dance History 1	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	
LIT 2120	A Survey of World Literature	3	Pre-Req: ENC 1101 or ENC 1102 or Equivalent
MUH 2111	Survey of Music History 1	3	
MUH 2112	Survey of Music History 2	3	Pre-Req: MUH 2112
MUL 1010	Music Appreciation	3	
MUL 2380	Jazz and Popular Music in America	3	
PHI 2010	Introduction to Philosophy	3	
PHI 2600	Introduction to Ethics	3	
THE 2000	Theater Appreciation	3	
BEHAVIORAL/SOCIAL SCIENCE (6.00 credits)			
Must take 3.0 credits from the following group.			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US Since 1877	3	
ANT 2000	Introduction to Anthropology	3	

ECO 2013	Principles of Economics (Macro)	3
POS 2041	American Federal Government	3
PSY 2012	Introduction to Psychology	3

---AND---

Must take 3.0 credits from the following group.

AMH 2010	History of the US to 1877	3
AMH 2020	History of the US Since 1877	3
ANT 2000	Introduction to Anthropology	3
DEP 2000	Human Growth and Development	3
ECO 2013	Principles of Economics (Macro)	3
POS 2041	American Federal Government	3
PSY 2012	Introduction to Psychology	3
SYG 2000	Introduction to Sociology	3
WOH 2012	History of World Civilization to 1789	3
WOH 2022	History of World Civilization From 1789	3

NATURAL SCIENCE – STATE CORE (6.00 credits)

BSC 2085	Human Anatomy and Physiology 1	3

The following course(s) are not allowed for credit in this area: All Labs

- - AND - -

CHM 1045	General Chemistry and Qualitative Analysis	3

The following course(s) are not allowed for credit in this area: All Labs

STUDENTS IN THE HEALTH SCIENCES ARE RECOMMENDED TO COMPLETE CHM 1033/1033L PRIOR TO REGISTERING FOR BSC 2085/2085L.

* *

STUDENTS IN THE BIOTECHNOLOGY PATHWAY MUST TAKE BSC 2426/2426L PRIOR TO ADMISSION TO THE BS IN BIOLOGICAL SCIENCES DEGREE.

MATHEMATICS (6.00 CREDITS)

Gordon rule assigned

MAC 1105	College Algebra	3

---AND---

STA 2023	Statistical Methods	3

GENERAL EDUCATION ELECTIVE (3.00 credits)

BSC 2085L	Human Anatomy and Physiology 1 Laboratory	1
CHM 1045L	General Chemistry & Qualitative Analysis Laboratory	2

COMPUTER COMPETENCY REQUIREMENT

Test type(s) needed: Computer Skills Placement (CSP)

Or

CGS 1060C Introduction to Computer Technology & Applications

BY THE 16TH EARNED COLLEGE-LEVEL CREDIT (EXCLUDING EAP, ENS, ESL, AND DEVELOPMENTAL EDUCATION COURSES), A STUDENT MUST HAVE ATTEMPTED CGS 1060, AN EQUIVALENT COLLEGE CREDIT COURSE, CTS 0050, OR THE CSP.

OR

BY THE 31ST EARNED COLLEGE-LEVEL CREDIT (EXCLUDING EAP, ENS, ESL, AND DEVELOPMENTAL EDUCATION COURSES), A STUDENT MUST HAVE DEMONSTRATED COMPUTER COMPETENCY BY PASSING CGS 1060, AN EQUIVALENT COLLEGE CREDIT COURSE, CTS 0050, OR THE CSP.

FOREIGN LANGUAGE COMPETENCY

ASL 1150C	American Sign Language 2	4
CHI 1121	Elementary Mandarin Chinese 2	4
FRE 1121	Elementary French 2	4
GER 1121	Elementary German 2	4
ITA 1121	Elementary Italian 2	4
JPN 1121	Elementary Japanese 2	4
POR 1121	Elementary Portuguese 2	4
RUS 1121	Elementary Russian 2	4
SPN 1121	Elementary Spanish 2	4

II. LOWER DIVISION SCIENCE REQUIREMENTS – 14 CREDITS REQUIRED

BSC2086	Human Anatomy & Physiology 2	3
BSC 2086L	Human Anatomy & Physiology 2 Lab	1
CHM 1046	General Chemistry and Qualitative Analysis	3

CHM 1046L	General Chemistry & Qualitative Analysis Lab	2	
MCB 2010	Microbiology	3	
MCB 2010L	Microbiology Laboratory	2	

III. LOWER DIVISION PROGRAM CORE REQUIREMENTS – 22 CREDITS REQUIRED

HSA 2532	Medical Documentation in Health Care	1	Pre-Req PAS 1800C, 1803, 1831, 2936
PAS 1800C	Physical Diagnosis I	2	Pre-Req BSC 2085, 2085L, 2086, 2086L, CHM 1045, 1045L, 1046, 1046L, MCB 2010, 2010L
PAS 1801C	Physical Diagnosis II	2	Pre-Req PAS 1800C, 1803, 1831, 2936
PAS 1803	Clinical Anatomy & Physiology	2	Pre-Req BSC 2085, 2085L, 2086, 2086L, CHM 1045, 1045L, 1046, 1046L, MCB 2010, 2010L
PAS 1811C	Clinical Medicine I for Physician Assistants	5	Pre-Req PAS 1800C, 1803, 1831, 2936
PAS 1812	Behavioral & Community Medicine	1	Pre-Req PAS 1800C, 1803, 1831, 2936
PAS 1813	Pathophysiological Basis of Disease I	2	Pre-Req PAS 1800C, 1803, 1831, 2936
PAS 1822L	Electrocardiography	1	Pre-Req PAS 1800C, 1803, 1831, 2936
PAS 1823	Pharmacology I	4	Pre-Req PAS 1800C, 1803, 1831, 2936
PAS 1831	Clinical Diagnostic Imaging	1	Pre-Req BSC 2085, 2085L, 2086, 2086L, CHM 1045, 1045L, 1046, 1046L, MCB 2010, 2010L
PAS 2936	Contemporary Issues for Physician Assistants	1	Pre-Req BSC 2085, 2085L, 2086, 2086L, CHM 1045, 1045L, 1046, 1046L, MCB 2010, 2010L

IV. UPPER DIVISION CORE REQUIREMENTS – 36 CREDITS REQUIRED

DEH 2801L	Interprofessional Practice & Education Laboratory		
HSC 3202	Introduction to Public Health		Pre-Req HSA 2532, PAS 1800C, 1801C, 1811C, 1812, 1813, 1822C, 1823, 1831
HSA 3533	Medical Documentation in Health Care II		Pre-Req HSA 2532, PAS 1800C, 1801C, 1811C, 1812, 1813, 1822C, 1823, 1831
HSC 4942C	Community Service Practicum	3	Pre-Req PAS 3019, 3042C, 3070, 3140, 203C
PAS 1820C	Clinical Medicine II for Physician Assistants	5	Pre-Req HSA 2532, PAS 1800C, 1801, 1811, 1812, 1813, 1822C, 1823, 1831
PAS 1824	- Pathophysiological Basis of Disease II	2	Pre-Req HSA 2532, PAS 1800C, 1801C 1811C, 1812, 1813, 1822C, 1823, 1831
PAS 3038C	Physical Diagnosis III	2	Pre-Req HSA 2532, PAS 1800C, 1801C, 1811C, 1812, 1813, 1822C, 1823, 1831
PAS 3203C	Surgical Problems & Procedures	5	Pre-Req PAS 1821, 1824, 3038C, 3075
PAS 3075	Pharmacotherapeutics	4	Pre-Req HSA 2532, PAS 1800C, 1801, 1811, 1812, 1813, 1822C, 1823, 1831
PAS 3019	Pathophysiological Basis of Disease III	2	Pre-Req PAS 1821, 1824, 3038C, 3075
PAS 3140	Genetics	2	Pre-Req PAS 1821, 1824, 3038C, 3075
PAS 3042C	Clinical Medicine III for Physician Assistants	5	Pre-Req PAS 1821, 1824, 3038C, 3075
PAS 3070	Clinical Pharmacotherapeutics	3	Pre-Req PAS 1821, 1824, 3038C, 3075

V. CLINICAL ROTATIONS – 22 CREDITS REQUIRED

PAS 4191	Internal Medicine	4	Pre-Req PAS 3019, 3042C, 3070, 3140, 3203C
PAS 4290	Surgery Clerkship	2	Pre-Req PAS 3019, 3042C, 3070, 3140, 3203C
PAS 4391	Pediatrics Clerkship	4	Pre-Req PAS 3019, 3042C, 3070, 3140, 3203C
PAS 4493	Family Medicine Clerkship	4	Pre-Req PAS 3019, 3042C, 3070, 3140, 3203C
PAS 4590	OB/GYN Clerkship	2	Pre-Req PAS 3019, 3042C, 3070, 3140, 3203C
PAS 4690	Emergency Medicine Clerkship	2	Pre-Req PAS 3019, 3042C, 3070, 3140, 3203C
PAS 4943	Selective Clerkship	2	Pre-Req PAS 3019, 3042C, 3070, 3140, 3203C
PAS 4940	Psychiatry Clerkship	2	Pre-Req PAS 3019, 3042C, 3070, 3140, 3203C

NOTE: Course may be subject to change.

Miami Dade College

Leadership and Management Innovation
Bachelor of Applied Science | Code: P9200 | 120 Credits
CIP (1105202991**)**
Effective Term: Fall 2025 (2257)

The Bachelor of Applied Science (BAS) in Leadership and Management Innovation prepares associate degree graduates from a variety of disciplines for work as a supervisor or manager. The programs prepare students with the hands-on training necessary to meet the workforce demands of today and tomorrow while providing the skills needed to compete for advancement.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (36.00 Credits Required) (MET WITH A GRADE OF "C" OR HIGHER)			
COMMUNICATIONS (6.00 Credits Required)			
ENC 1101	English Composition 1	3	Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
ENC 1102	English Composition 2	3	Prerequisite: ENC 1101
ORAL COMMUNICATION (3.00 Credits Required)			
Select 3 credits from the following:			
ENC 2300	Advanced Composition & Communication	3	Prerequisites: ENC 1101, ENC 1102
SPC 1017	Introduction to Communications	3	
SPC 2608	Introduction to Public Speaking	3	
HUMANITIES (6.00 Credits Required)			
Group A – Select 3 credits from the following (State Core):			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theater Appreciation	3	
---A**ND---**			
Group B – Select 3 credits from the following (MDC Core):			
ARC 2701	History of Architecture 1	3	
ARC 2702	History of Architecture 2	3	
ARH 1000	Art Appreciation	3	
ARH 2050	Art History 1	3	
ARH 2051	Art History 2	3	Prerequisite: ARH 2050
ARH 2740	Cinema Appreciation	3	Prerequisite: HUM 1020
DAN 2100	Dance Appreciation	3	
DAN 2130	Dance History 1	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
LIT 2120	A Survey of World Literature	3	Prerequisite: ENC 1101 or ENC 1102 or Equivalent
MUH 2111	Survey of Music History 1	3	
MUH 2112	Survey of Music History 2	3	Prerequisite: MUH 2111
MUL 1010	Music Appreciation	3	
MUL 2380	Jazz and Popular Music in America	3	
PHI 2010	Introduction to Philosophy	3	
PHI 2600	Introduction to Ethics	3	Prerequisite: ENC 1101
THE 2000	Theater Appreciation	3	

BEHAVIORAL AND SOCIAL SCIENCE (6.00 Credits Required)

Group A – Select 3 credits from the following (State Core):

AMH 2010	History of the United States to 1877	3
AMH 2020	History of the United States from 1877	3
POS 2041	American Federal Government	3

---AND---

Group B – Select 3 credits from the following (MDC Core):

AMH 2010	History of the United States to 1877	3
AMH 2020	History of the United States from 1877	3
ANT 2000	Introduction to Anthropology	3
DEP 2000	Human Growth and Development	3
ECO 2013	Principles of Economics	3
POS 2041	American Federal Government	3
PSY 2012	Introduction to Psychology	3
SYG 2000	Introduction to Sociology	3
WOH 2012	History of World Civilization to 1715	3
WOH 2022	History of World Civilization from 1715	3

NOTE: If a behavioral science course is selected from the State Core, then a social science course must be selected from the MDC Core. If a social science course is selected from the State core, then a behavioral science course must be selected from the MDC core.

NATURAL SCIENCE (6.00 Credits Required)

Group A – Select 3 credits from the following (State Core):

AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	Prerequisite: BSC 1005L (Optional Laboratory)
BSC 2010	Principles of Biology	3	Pre/Corequisites: BSC 2010L, CHM 1045
BSC 2085	Human Anatomy & Physiology	3	Corequisite: BSC 2085L
CHM 1020	General Education Chemistry	3	
CHM 1045	General Chemistry & Qualitative Analysis	3	Prerequisite: CHM1025 or a passing score on the CART exam, MAC 1105; Corequisite: CHM 1045L
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	Fundamentals of Physics	3	
PHY 2048	Physics with Calculus 1	3	Prerequisites: High School Physics or PHY 1025, PHY 2053 or Departmental Approval and MAC 2311; Corequisite: PHY 2048L
PHY 2053	Physics without Calculus 1	3	Prerequisite: MAC 1114 or MAC 1147; Corequisite: PHY 2053L

---AND---

Group B – Select 3 credits from the following (MDC Core):

AST 1002	Descriptive Astronomy	3
BOT 1010	Botany	3
BSC 1005	General Education Biology	3
BSC 1084	Functional Human Anatomy	3
BSC 2010	Principles of Biology	3
BSC 2020 Anatomy/Physiology	Human Biology: Fundamentals of	3
BSC 2085	Anatomy and Physiology I	3
CHM1020	General Education Chemistry	3
CHM1025	Introductory Chemistry	3
CHM1033	Chemistry for Health Sciences	3
CHM1045	General Chemistry and Qualitative Analysis	3
CHM1046	General Chemistry and Qualitative Analysis	3
CHM2200	Survey of Organic Chemistry	3
CHM2210	Organic Chemistry 1	3
CHM2211	Organic Chemistry 2	3
ESC 1000	General Education Earth Science	3
EVR 1001	Introduction to Environmental Science	3

GLY 1010	Physical Geology	3	
GLY1100	Historical Geology	3	
HUN 1201	Essentials of Human Nutrition	3	
MET1010	Introduction to Weather	3	
OCB 1010	Introduction to Marine Biology	3	
OCE 1001	Introduction to Oceanography	3	
PHY1004	Physics with Applications 1	3	
PHY1020	General Education Physics	3	
PHY1025	Basic Physics	3	
PHY2048	Physics with Calculus 1	4	
PHY2049	Physics with Calculus 2	4	
PHY2053	Physics (without Calculus) 1	3	
PHY2054	Physics (without Calculus) 2	3	
PSC 1121	General Education Physical Science	3	
PSC 1515	Energy in the Natural Environment	3	

MATHEMATICS (6.00 CREDITS REQUIRED)

Group A – Select 3 credits from the following group (State Core):

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 2311	Calculus & Analytical Geometry	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1114 and MAC 1140, or MAC 1147
MGF 1130	Mathematical Thinking	3	Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

---A**ND---**

Group B – Select 3 credits from the following group (MDC Core):

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 1106	Integrated College and Precalculus Algebra	5	Prerequisite: MAT1033
MAC 1114	Trigonometry	3	Prerequisite: MAC 1105 or MAC 1106
MAC 1140	Pre-Calculus Algebra	3	Prerequisite: MAC 1105
MAC 1147	Pre-Calculus Algebra and Trigonometry	5	Prerequisite: MAC1105
MAC 2233	Business Calculus	3	Prerequisite: MAC 1105 or MAC1106
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MAC 2312	Calculus and Analytical Geometry 2	4	Prerequisite: MAC 2311
MAC 2313	Calculus and Analytic Geometry 3	4	Prerequisite: MAC 2312
MAD 1100	Discrete Mathematics for Computer Science	3	Prerequisite: MAC1105
MAD 2104	Discrete Mathematics	3	Prerequisite: MAC 1106 or MAC1140
MAP 2302	Introduction to Differential Equations	3	Prerequisite: MAC 2312
MAS 2103	Elementary Linear Algebra	3	Prerequisite: MAC 2311
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
MGF 1131	Mathematics in Context	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
QMB 2100	Basic Business Statistics (C)	3	Prerequisite: Acceptable score on the Algebra placement test or equivalent
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

NOTE: * Any course with the following prefix excluding labs.

GENERAL EDUCATION ELECTIVE (3.00 Credits Required) (MET WITH A "C" LETTER GRADE OR HIGHER)
Electives may include any appropriate transferrable (Credit Type 1 or 2) courses (Check with Advisor).

LOWER DIVISION ELECTIVES (24.00 Credits Required) (MET WITH A "D" LETTER GRADE OR HIGHER)
Electives may include any appropriate transferrable (Credit Type 1 or 2) courses (Check with Advisor).

UPPER DIVISION REQUIREMENTS (33.00 Credits Required) (MET WITH A "C" LETTER GRADE OR HIGHER)

FIN 3400	Finance for Non-Financial Managers	3	
MAN 3025	Organization Management	3	
MAN 3065	Business Ethics	3	
MAN 3240	Organizational Behavior	3	
MAN 3301	Human Resources Management	3	
MAN 4113	Managing in a Multifaceted Environment	3	
MAN 4120	Leadership Challenges and Supervision	3	
MAN 4720	Strategic Management Decision Making	3	
MAN 4900	Capstone Project in Supervision and Permission	3	Senior Status or Departmental Management
MAN 4941	Management Internship	3	Senior Status or Departmental Permission
MAR 3803	Marketing for Managers	3	

ELECTIVES (27.00 Credits Required) (MET WITH A "C" LETTER GRADE OR HIGHER)
Group A – General Management 6 credits

ACG 3*	FIN 4*	HFT 3*	MAN 3*	MAR 4*
ACG 4*	GEB 3*	HFT 4*	MAN 4*	
FIN 3*	GEB 4*	ISM 4*	MAR 3*	

Group B – Electives 21 credits
Electives may include any appropriate transferrable (Credit Type 1 or 2) courses (Check with Advisor).

Additional Information:
- Students should check their individualized Degree Audit Report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami Dade College. This outline includes current graduation requirements.
- Students must complete all coursework with a "C" or better to complete the degree.

Miami Dade College

Leadership and Management Innovation – Accounting Concentration
Bachelor of Applied Science | Code: P9203 | 120 Credits
CIP (1105202991**)**
Effective Term: Fall 2025 (2257)

The Bachelor of Applied Science (BAS) in Leadership and Management Innovation prepares associate degree graduates from a variety of disciplines for work as a supervisor or manager. The program prepares students with the hands-on training necessary to meet the workforce demands of today and tomorrow while providing the skills needed to compete for advancement. In addition, students may complete the general degree or one of three concentrations in Accounting, Digital Marketing, Hospitality Management, or Human Resource Management.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (36.00 Credits Required) (MET WITH A GRADE OF "C" OR HIGHER)			
COMMUNICATIONS (6.00 Credits Required)			
ENC 1101	English Composition 1	3	Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
ENC 1102	English Composition 2	3	Prerequisite: ENC 1101
ORAL COMMUNICATION (3.00 Credits Required)			
Select 3 credits from the following:			
ENC 2300	Advanced Composition & Communication	3	Prerequisites: ENC 1101, ENC 1102
SPC 1017	Introduction to Communications	3	
SPC 2608	Introduction to Public Speaking	3	
HUMANITIES (6.00 Credits Required)			
Group A – Select 3 credits from the following (State Core):			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theater Appreciation	3	
---**AND**---			
Group B – Select 3 credits from the following (MDC Core):			
ARC 2701	History of Architecture 1	3	
ARC 2702	History of Architecture 2	3	
ARH 1000	Art Appreciation	3	
ARH 2050	Art History 1	3	Prerequisite: ARH 2050
ARH 2051	Art History 2	3	
ARH 2740	Cinema Appreciation	3	
DAN 2100	Dance Appreciation	3	
DAN 2130	Dance History 1	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	
LIT 2120	A Survey of World Literature	3	Prerequisite: ENC 1101 or ENC 1102 or Equivalent
MUH 2111	Survey of Music History 1	3	
MUH 2112	Survey of Music History 2	3	Prerequisite: MUH 2112
MUL 1010	Music Appreciation	3	
MUL 2380	Jazz and Popular Music in America	3	
PHI 2010	Introduction to Philosophy	3	
PHI 2600	Introduction to Ethics	3	
THE 2000	Theater Appreciation	3	

BEHAVIORAL AND SOCIAL SCIENCE (6.00 Credits Required)

Group A – Select 3 credits from the following (State Core):

AMH 2010	History of the United States to 1877	3
AMH 2020	History of the United States from 1877	3
POS 2041	American Federal Government	3

---AND---

Group B – Select 3 credits from the following (MDC Core):

AMH 2010	History of the United States to 1877	3
AMH 2020	History of the United States from 1877	3
ANT 2000	Introduction to Anthropology	3
DEP 2000	Human Growth and Development	3
ECO 2013	Principles of Economics	3
POS 2041	American Federal Government	3
PSY 2012	Introduction to Psychology	3
SYG 2000	Introduction to Sociology	3
WOH 2012	History of World Civilization to 1715	3
WOH 2022	History of World Civilization from 1715	3

NOTE: If a behavioral science course is selected from the State Core, then a social science course must be selected from the MDC Core. If a social science course is selected from the State core, then a behavioral science course must be selected from the MDC core.

NATURAL SCIENCE (6.00 Credits Required)

Group A – Select 3 credits from the following (State Core):

AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	Prerequisite: BSC 1005L (Optional Laboratory)
BSC 2010	Principles of Biology	3	Pre/Corequisites: BSC 2010L, CHM 1045
BSC 2085	Human Anatomy & Physiology	3	Corequisite: BSC 2085L
CHM 1020	General Education Chemistry	3	
CHM 1045	General Chemistry & Qualitative Analysis	3	Prerequisite: CHM1025 or a passing score on the CART exam, MAC 1105; Corequisite: CHM 1045L
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	Fundamentals of Physics	3	
PHY 2048	Physics with Calculus 1	3	Prerequisites: High School Physics or PHY 1025, PHY 2053 or Departmental Approval and MAC 2311; Corequisite: PHY 2048L
PHY 2053	Physics without Calculus 1	3	Prerequisite: MAC 1114 or MAC 1147; Corequisite: PHY 2053L

---AND---

Group B – Select 3 credits from the following (MDC Core):

AST 1002	Descriptive Astronomy	3
BOT 1010	Botany	3
BSC 1005	General Education Biology	3
BSC 1084	Functional Human Anatomy	3
BSC 2010	Principles of Biology	3
BSC 2020	Human Biology: Fundamentals of Anatomy/Physiology	3
BSC 2085	Anatomy and Physiology I	3
CHM1020	General Education Chemistry	3
CHM1025	Introductory Chemistry	3
CHM1033	Chemistry for Health Sciences	3
CHM1045	General Chemistry and Qualitative Analysis	3
CHM1046	General Chemistry and Qualitative Analysis	3
CHM2200	Survey of Organic Chemistry	3
CHM2210	Organic Chemistry 1	3
CHM2211	Organic Chemistry 2	3
ESC 1000	General Education Earth Science	3
EVR 1001	Introduction to Environmental Science	3

GLY 1010	Physical Geology	3	
GLY1100	Historical Geology	3	
HUN 1201	Essentials of Human Nutrition	3	
MET1010	Introduction to Weather	3	
OCB 1010	Introduction to Marine Biology	3	
OCE 1001	Introduction to Oceanography	3	
PHY1004	Physics with Applications 1	3	
PHY1020	General Education Physics	3	
PHY1025	Basic Physics	3	
PHY2048	Physics with Calculus 1	4	
PHY2049	Physics with Calculus 2	4	
PHY2053	Physics (without Calculus) 1	3	
PHY2054	Physics (without Calculus) 2	3	
PSC 1121	General Education Physical Science	3	
PSC 1515	Energy in the Natural Environment	3	

MATHEMATICS (6.00 CREDITS REQUIRED)
Group A – Select 3 credits from the following group (State Core):

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 2311	Calculus & Analytical Geometry	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1114 and MAC 1140, or MAC 1147
MGF 1130	Mathematical Thinking	3	Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

---**AND**---
Group B – Select 3 credits from the following group (MDC Core):

QMB 2100	Basic Business Statistics	3	
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

GENERAL EDUCATION ELECTIVE (3.00 Credits Required) (MET WITH A "D" LETTER GRADE OR HIGHER)
Electives may include any appropriate transferrable (Credit Type 1 or 2) courses (Check with Advisor).

LOWER DIVISION ELECTIVES (24.00 Credits Required) (MET WITH A "C" LETTER GRADE OR HIGHER)
Electives may include any appropriate transferrable (Credit Type 1 or 2) courses (Check with Advisor).

UPPER DIVISION REQUIREMENTS (60.00 Credits Required) (MET WITH A "C" LETTER GRADE OR HIGHER)
Business Core (33.00 Credits Required)

FIN 3400	Finance for Non-Financial Managers	3	
MAN 3025	Organization Management	3	
MAN 3065	Business Ethics	3	
MAN 3240	Organizational Behavior	3	
MAN 3301	Human Resources Management	3	
MAN 4113	Managing in a Multifaceted Environment	3	
MAN 4120	Leadership Challenges and Supervision	3	
MAN 4720	Strategic Management Decision Makin	3	
MAN 4900	Capstone Project in Supervision and Management	3	Senior Status or Departmental Permission
MAN 4941	Management Internship	3	Senior Status or Departmental Permission
MAR 3803	Marketing for Managers	3	

ACCOUNTING CONCENTRATION (18.00 Credits Required)

ACG 3103	Intermediate Financial Accounting I	3	Prerequisites: ACG 2071, MAC 2233, QMB 2100
ACG 3113	Intermediate Financial Accounting II	3	Prerequisite: ACG 3103
ACG 3343	Cost Accounting and Controls	3	Prerequisite: ACG 2071
ACG 4632	Auditing	3	Prerequisite: ACG 3113
TAX 4001	Federal Income Tax I	3	Prerequisite: ACG 3103
TAX 4011	Federal Income Tax II	3	Prerequisite: TAX 4001

BUSINESS ELECTIVES (9.00 Credits Required) (MET WITH A "D" LETTER GRADE OR HIGHER)

ACG*	FIN*	MAN*	MNA*	QMB*
BUL*	GEB*	MAR*	OST*	SBM*
ECO*	HFT*	MKA*	PUR*	TAX*

Additional Information:

- Students who want to pursue a Master of Accounting (MAcc) degree programs, it is recommended they take ACG 4401 - Accounting Information Systems and BUL 4320 - Business Law courses as two of their electives.
- Students should check their individualized Degree Audit Report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami Dade College. This outline includes current graduation requirements.
- Students must complete all upper division requirement coursework with a "C" or better to complete the degree.

Miami Dade College

Leadership and Management Innovation – Digital Marketing Concentration
Bachelor of Applied Science | Code: P9204 | 120 Credits
CIP (1105202991**)**
Effective Term: Fall 2025 (2257)

The Bachelor of Applied Science (BAS) in Leadership and Management Innovation prepares associate degree graduates from a variety of disciplines for work as a supervisor or manager. The program prepares students with the hands-on training necessary to meet the workforce demands of today and tomorrow while providing the skills needed to compete for advancement. In addition, students may complete the general degree or one of three concentrations in Accounting, Digital Marketing, Hospitality Management, or Human Resource Management.
In addition, students may complete the general degree or one of three concentrations in Accounting, Digital Marketing, Hospitality Management, or Human Resource Management.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (36.00 Credits Required) (MET WITH A GRADE OF "C" OR HIGHER)			
COMMUNICATIONS (6.00 Credits Required)			
ENC 1101	English Composition 1	3	Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
ENC 1102	English Composition 2	3	Prerequisite: ENC 1101
ORAL COMMUNICATION (3.00 Credits Required)			
Select 3 credits from the following:			
ENC 2300	Advanced Composition & Communication	3	Prerequisites: ENC 1101, ENC 1102
SPC 1017	Introduction to Communications	3	
SPC 2608	Introduction to Public Speaking	3	
HUMANITIES (6.00 Credits Required)			
Group A – Select 3 credits from the following (State Core):			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theater Appreciation	3	
---**AND**---			
Group B – Select 3 credits from the following (MDC Core):			
ARC 2701	History of Architecture 1	3	
ARC 2702	History of Architecture 2	3	
ARH 1000	Art Appreciation	3	
ARH 2050	Art History 1	3	
ARH 2051	Art History 2	3	Prerequisite: ARH 2050
ARH 2740	Cinema Appreciation	3	Prerequisite: HUM 1020
DAN 2100	Dance Appreciation	3	
DAN 2130	Dance History 1	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
LIT 2120	A Survey of World Literature	3	Prerequisite: ENC 1101 or ENC 1102 or Equivalent
MUH 2111	Survey of Music History 1	3	
MUH 2112	Survey of Music History 2	3	Prerequisite: MUH 2111
MUL 1010	Music Appreciation	3	
MUL 2380	Jazz and Popular Music in America	3	
PHI 2010	Introduction to Philosophy	3	
PHI 2600	Introduction to Ethics	3	Prerequisite: ENC 1101
THE 2000	Theater Appreciation	3	

BEHAVIORAL AND SOCIAL SCIENCE (6.00 Credits Required)

Group A – Select 3 credits from the following (State Core):

AMH 2010	History of the United States to 1877	3
AMH 2020	History of the United States from 1877	3
POS 2041	American Federal Government	3

---AND---

Group B – Select 3 credits from the following (MDC Core):

AMH 2010	History of the United States to 1877	3
AMH 2020	History of the United States from 1877	3
ANT 2000	Introduction to Anthropology	3
DEP 2000	Human Growth and Development	3
ECO 2013	Principles of Economics	3
POS 2041	American Federal Government	3
PSY 2012	Introduction to Psychology	3
SYG 2000	Introduction to Sociology	3
WOH 2012	History of World Civilization to 1715	3
WOH 2022	History of World Civilization from 1715	3

NOTE: If a behavioral science course is selected from the State Core, then a social science course must be selected from the MDC Core. If a social science course is selected from the State core, then a behavioral science course must be selected from the MDC core.

NATURAL SCIENCE (6.00 Credits Required)

Group A – Select 3 credits from the following (State Core):

AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	Prerequisite: BSC 1005L (Optional Laboratory)
BSC 2010	Principles of Biology	3	Pre/Corequisites: BSC 2010L, CHM 1045
BSC 2085	Human Anatomy & Physiology	3	Corequisite: BSC 2085L
CHM 1020	General Education Chemistry	3	
CHM 1045	General Chemistry & Qualitative Analysis	3	Prerequisite: CHM1025 or a passing score on the CART exam, MAC 1105; Corequisite: CHM 1045L
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	Fundamentals of Physics	3	
PHY 2048	Physics with Calculus 1	3	Prerequisites: High School Physics or PHY 1025, PHY 2053 or Departmental Approval and MAC 2311; Corequisite: PHY 2048L
PHY 2053	Physics without Calculus 1	3	Prerequisite: MAC 1114 or MAC 1147; Corequisite: PHY 2053L

---AND---

Group B – Select 3 credits from the following (MDC Core):

AST 1002	Descriptive Astronomy	3
BOT 1010	Botany	3
BSC 1005	General Education Biology	3
BSC 1084	Functional Human Anatomy	3
BSC 2010	Principles of Biology	3
BSC 2020	Human Biology: Fundamentals of Anatomy/Physiology	3
BSC 2085	Anatomy and Physiology I	3
CHM1020	General Education Chemistry	3
CHM1025	Introductory Chemistry	3
CHM1033	Chemistry for Health Sciences	3
CHM1045	General Chemistry and Qualitative Analysis	3
CHM1046	General Chemistry and Qualitative Analysis	3
CHM2200	Survey of Organic Chemistry	3
CHM2210	Organic Chemistry 1	3
CHM2211	Organic Chemistry 2	3
ESC 1000	General Education Earth Science	3
EVR 1001	Introduction to Environmental Science	3

GLY 1010	Physical Geology	3	
GLY1100	Historical Geology	3	
HUN 1201	Essentials of Human Nutrition	3	
MET1010	Introduction to Weather	3	
OCB 1010	Introduction to Marine Biology	3	
OCE 1001	Introduction to Oceanography	3	
PHY1004	Physics with Applications 1	3	
PHY1020	General Education Physics	3	
PHY1025	Basic Physics	3	
PHY2048	Physics with Calculus 1	4	
PHY2049	Physics with Calculus 2	4	
PHY2053	Physics (without Calculus) 1	3	
PHY2054	Physics (without Calculus) 2	3	
PSC 1121	General Education Physical Science	3	
PSC 1515	Energy in the Natural Environment	3	

MATHEMATICS (6.00 Credits Required)
Group A – Select 3 credits from the following group (State Core):

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 2311	Calculus & Analytical Geometry	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1114 and MAC 1140, or MAC 1147
MGF 1130	Mathematical Thinking	3	Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
STA 2023	Statistical Methods	3	Prerequisite: MAT1033 or MGF 1131

---A**ND---**
Group B – Select 3 credits from the following group (MDC Core):

QMB 2100	Basic Business Statistics	3	
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

GENERAL EDUCATION ELECTIVE (3.00 Credits Required) (MET WITH A "D" LETTER GRADE OR HIGHER)
Electives may include any appropriate transferrable (Credit Type 1 or 2) courses (Check with Advisor).

LOWER DIVISION ELECTIVES (24.00 Credits Required) (MET WITH A "C" LETTER GRADE OR HIGHER)
Electives may include any appropriate transferrable (Credit Type 1 or 2) courses (Check with Advisor).

UPPER DIVISION REQUIREMENTS (60.00 Credits Required) (MET WITH A "C" LETTER GRADE OR HIGHER)
Business Core – 33 Credits Required

FIN 3400	Finance for Non-Financial Managers	3	
MAN 3025	Organization Management	3	
MAN 3065	Business Ethics	3	
MAN 3240	Organizational Behavior	3	
MAN 3301	Human Resources Management	3	
MAN 4113	Managing in a Multifaceted Environment	3	
MAN 4120	Leadership Challenges and Supervision	3	
MAN 4720	Strategic Management Decision Makin	3	
MAN 4900	Capstone Project in Supervision and Management	3	Senior Status or Departmental Permission
MAN 4941	Management Internship	3	Senior Status or Departmental Permission
MAR 3803	Marketing for Managers	3	

DIGITAL MARKETING CONCENTRATION (18.00 Credits Required)

MAR 3325	Digital Advertising	3	Prerequisite: MAR 3803
MAR 4233	Social Media Marketing Application	3	Prerequisite: MAR 3803
MAR 4327	Search Engine Optimization & Search Engine Marketing	3	Prerequisite: MAR 3803
MAR 4674	Marketing Analytics	3	Prerequisite: MAR 3803
MAR 4721	Digital Marketing Strategy	3	Prerequisite: MAR 3803

MAR 4860 Customer Relationship Management 3 Prerequisite: MAR 3803

BUSINESS ELECTIVES (9.00 Credits Required) (MET WITH A "D" LETTER GRADE OR HIGHER)

ACG*	FIN*	MAN*	MNA*	QMB*
BUL*	GEB*	MAR*	OST*	SBM*
ECO*	HFT*	MKA*	PUR*	TAX*

Miami Dade College

Leadership and Management Innovation – Hospitality Management Concentration
CIP (1105202991**)**
Bachelor of Applied Science | Code: P9201 | 120 Credits
Effective Term: Fall 2025 (2257)

The Bachelor of Applied Science (BAS) in Leadership and Management Innovation prepares associate degree graduates from a variety of disciplines for work as a supervisor or manager. The programs prepare students with the hands-on training necessary to meet the workforce demands of today and tomorrow while providing the skills needed to compete for advancement. In addition, students may complete the general degree or one of three concentrations in Accounting, Digital Marketing, Hospitality Management, or Human Resource Management.
In addition, students may complete the general degree or one of three concentrations in Accounting, Digital Marketing, Hospitality Management, or Human Resource Management.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (36.00 Credits Required) (MET WITH A GRADE OF "C" OR HIGHER)			
COMMUNICATIONS (6.00 Credits Required)			
ENC 1101	English Composition 1	3	Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
ENC 1102	English Composition 2	3	Prerequisite: ENC 1101
ORAL COMMUNICATION (3.00 Credits Required)			
Select 3 credits from the following:			
ENC 2300	Advanced Composition & Communication	3	Prerequisites: ENC 1101, ENC 1102
SPC 1017	Introduction to Communications	3	
SPC 2608	Introduction to Public Speaking	3	
HUMANITIES (6.00 Credits Required)			
Group A – Select 3 credits from the following (State Core):			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theater Appreciation	3	
---**AND**---			
Group B – Select 3 credits from the following (MDC Core):			
ARC 2701	History of Architecture 1	3	
ARC 2702	History of Architecture 2	3	
ARH 1000	Art Appreciation	3	
ARH 2050	Art History	3	
ARH 2051	Art History 2	3	Prerequisite: ARH 2050
ARH 2740	Cinema Appreciation	3	Prerequisite: HUM 1020
DAN 2100	Dance Appreciation	3	
DAN 2130	Dance History 1	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
LIT 2120	A Survey of World Literature	3	Prerequisite: ENC 1101 or ENC 1102 or Equivalent
MUH 2111	Survey of Music History 1	3	
MUH 2112	Survey of Music History 2	3	Prerequisite: MUH 2111
MUL 1010	Music Appreciation	3	
MUL 2380	Jazz and Popular Music in America	3	
PHI 2010	Introduction to Philosophy	3	
PHI 2600	Introduction to Ethics	3	Prerequisite: ENC 1101
THE 2000	Theater Appreciation	3	

BEHAVIORAL AND SOCIAL SCIENCE (6.00 Credits Required)

Group A – Select 3 credits from the following (State Core):

AMH 2010	History of the United States to 1877	3
AMH 2020	History of the United States from 1877	3
POS 2041	American Federal Government	3

---AND---

Group B – Select 3 credits from the following (MDC Core):

AMH 2010	History of the United States to 1877	3
AMH 2020	History of the United States from 1877	3
ANT 2000	Introduction to Anthropology	3
DEP 2000	Human Growth and Development	3
ECO 2013	Principles of Economics	3
POS 2041	American Federal Government	3
PSY 2012	Introduction to Psychology	3
SYG 2000	Introduction to Sociology	3
WOH 2012	History of World Civilization to 1715	3
WOH 2022	History of World Civilization from 1715	3

NOTE: If a behavioral science course is selected from the State Core, then a social science course must be selected from the MDC Core. If a social science course is selected from the State core, then a behavioral science course must be selected from the MDC core.

NATURAL SCIENCE (6.00 Credits Required)

Group A – Select 3 credits from the following (State Core):

AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	Prerequisite: BSC 1005L (Optional Laboratory)
BSC 2010	Principles of Biology	3	Pre/Corequisites: BSC 2010L, CHM 1045
BSC 2085	Human Anatomy & Physiology	3	Corequisite: BSC 2085L
CHM 1020	General Education Chemistry	3	
CHM 1045	General Chemistry & Qualitative Analysis	3	Prerequisite: CHM1025 or a passing score on the CART exam, MAC 1105; Corequisite: CHM 1045L
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	Fundamentals of Physics	3	
PHY 2048	Physics with Calculus 1	3	Prerequisites: High School Physics or PHY 1025, PHY 2053 or Departmental Approval and MAC 2311; Corequisite: PHY 2048L
PHY 2053	Physics without Calculus 1	3	Prerequisite: MAC 1114 or MAC 1147; Corequisite: PHY 2053L

---AND---

Group B – Select 3 credits from the following (MDC Core):

AST 1002	Descriptive Astronomy	3
BOT 1010	Botany	3
BSC 1005	General Education Biology	3
BSC 1084	Functional Human Anatomy	3
BSC 2010	Principles of Biology	3
BSC 2020	Human Biology: Fundamentals of Anatomy/Physiology	3
BSC 2085	Anatomy and Physiology I	3
CHM1020	General Education Chemistry	3
CHM1025	Introductory Chemistry	3
CHM1033	Chemistry for Health Sciences	3
CHM1045	General Chemistry and Qualitative Analysis	3
CHM1046	General Chemistry and Qualitative Analysis	3
CHM2200	Survey of Organic Chemistry	3
CHM2210	Organic Chemistry 1	3
CHM2211	Organic Chemistry 2	3
ESC 1000	General Education Earth Science	3
EVR 1001	Introduction to Environmental Science	3

GLY 1010	Physical Geology	3	
GLY1100	Historical Geology	3	
HUN 1201	Essentials of Human Nutrition	3	
MET1010	Introduction to Weather	3	
OCB 1010	Introduction to Marine Biology	3	
OCE 1001	Introduction to Oceanography	3	
PHY1004	Physics with Applications 1	3	
PHY1020	General Education Physics	3	
PHY1025	Basic Physics	3	
PHY2048	Physics with Calculus 1	4	
PHY2049	Physics with Calculus 2	4	
PHY2053	Physics (without Calculus) 1	3	
PHY2054	Physics (without Calculus) 2	3	
PSC 1121	General Education Physical Science	3	
PSC 1515	Energy in the Natural Environment	3	

MATHEMATICS (6.00 Credits Required)
Group A – Select 3 credits from the following group (State Core):

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 2311	Calculus & Analytical Geometry	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1114 and MAC 1140, or MAC 1147
MGF 1130	Mathematical Thinking	3	Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
STA 2023	Statistical Methods	3	Prerequisite: MAT1033 or MGF 1131

---**AND**---
Group B – Select 3 credits from the following group (MDC Core):

QMB 2100	Basic Business Statistics	3	
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

GENERAL EDUCATION ELECTIVE (3.00 Credits Required) (MET WITH A "D" LETTER GRADE OR HIGHER)
Electives may include any appropriate transferrable (Credit Type 1 or 2) courses (Check with Advisor).

LOWER DIVISION ELECTIVES (24.00 Credits Required) (MET WITH A "C" LETTER GRADE OR HIGHER)
Electives may include any appropriate transferrable (Credit Type 1 or 2) courses (Check with Advisor).

UPPER DIVISION REQUIREMENTS (60.00 Credits Required) (MET WITH A "C" LETTER GRADE OR HIGHER)
Business Core (33.00 Credits Required)

FIN 3400	Finance for Non-Financial Managers	3	
MAN 3025	Organization Management	3	
MAN 3065	Business Ethics	3	
MAN 3240	Organizational Behavior	3	
MAN 3301	Human Resources Management	3	
MAN 4113	Managing in a Multifaceted Environment	3	
MAN 4120	Leadership Challenges and Supervision	3	
MAN 4720	Strategic Management Decision Makin	3	
MAN 4900	Capstone Project in Supervision and Management	3	Senior Status or Departmental Permission
MAN 4941	Management Internship	3	Senior Status or Departmental Permission
MAR 3803	Marketing for Managers	3	

HOSPITALITY MANAGEMENT CONCENTRATION (18.00 Credits Required)

HFT 3263	Restaurant Management	3
HFT 3603	Hospitality Law	3
HFT 4064	Bar and Beverage Management	3
HFT 4253	Hotel Management	3
HFT 4468	Revenue Management in the Hospitality Industry	3
HFT 4809	Food Service Management	3

BUSINESS ELECTIVES (9.00 Credits Required) (MET WITH A "D" LETTER GRADE OR HIGHER)

ACG*	FIN*	MAN*	MNA*	QMB*
BUL*	GEB*	MAR*	OST*	SBM*
ECO*	HFT*	MKA*	PUR*	TAX*

Additional Information:
Students should check their individualized Degree Audit Report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami Dade College. This outline includes current graduation requirements.

Students must complete all coursework with a "C" or better to complete the degree.

Miami Dade College

Leadership and Management Innovation – Human Resource Management Concentration
CIP (1105202991**)**
Bachelor of Applied Science | Code: P9202 | 120 Credits
Effective Term: Fall 2025 (2257)

The Bachelor of Applied Science (BAS) in Leadership and Management Innovation prepares associate degree graduates from a variety of disciplines for work as a supervisor or manager. The program prepares students with the hands-on training necessary to meet the workforce demands of today and tomorrow while providing the skills needed to compete for advancement. In addition, students may complete the general degree or one of three concentrations in Accounting, Digital Marketing, Hospitality Management, or Human Resource Management.
In addition, students may complete the general degree or one of three concentrations in Accounting, Digital Marketing, Hospitality Management, or Human Resource Management.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (36.00 Credits Required) (MET WITH A GRADE OF "C" OR HIGHER)			
COMMUNICATIONS (6.00 Credits Required)			
ENC 1101	English Composition 1	3	Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
ENC 1102	English Composition 2	3	Prerequisite: ENC 1101
ORAL COMMUNICATION (3.00 Credits Required)			
Select 3 credits from the following:			
ENC 2300	Advanced Composition & Communication	3	Prerequisites: ENC 1101, ENC 1102
SPC 1017	Introduction to Communications	3	
SPC 2608	Introduction to Public Speaking	3	
HUMANITIES (6.00 Credits Required)			
Group A – Select 3 credits from the following (State Core):			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theater Appreciation	3	
---**AND**---			
Group B – Select 3 credits from the following (MDC Core):			
ARC 2701	History of Architecture 1	3	
ARC 2702	History of Architecture 2	3	
ARH 1000	Art Appreciation	3	
ARH 2050	Art History 1	3	
ARH 2051	Art History 2	3	Prerequisite: ARH 2050
ARH 2740	Cinema Appreciation	3	Prerequisite: HUM 1020
DAN 2100	Dance Appreciation	3	
DAN 2130	Dance History 1	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
LIT 2120	A Survey of World Literature	3	Prerequisite: ENC 1101 or ENC 1102 or Equivalent
MUH 2111	Survey of Music History 1	3	
MUH 2112	Survey of Music History 2	3	Prerequisite: MUH 2111
MUL 1010	Music Appreciation	3	
MUL 2380	Jazz and Popular Music in America	3	
PHI 2010	Introduction to Philosophy	3	
PHI 2600	Introduction to Ethics	3	Prerequisite: ENC 1101
THE 2000	Theater Appreciation	3	

BEHAVIORAL AND SOCIAL SCIENCE (6.00 Credits Required)

Group A – Select 3 credits from the following (State Core):

AMH 2010	History of the United States to 1877	3
AMH 2020	History of the United States from 1877	3
POS 2041	American Federal Government	3

---AND---

Group B – Select 3 credits from the following (MDC Core):

AMH 2010	History of the United States to 1877	3
AMH 2020	History of the United States from 1877	3
ANT 2000	Introduction to Anthropology	3
DEP 2000	Human Growth and Development	3
ECO 2013	Principles of Economics	3
POS 2041	American Federal Government	3
PSY 2012	Introduction to Psychology	3
SYG 2000	Introduction to Sociology	3
WOH 2012	History of World Civilization to 1715	3
WOH 2022	History of World Civilization from 1715	3

NOTE: If a behavioral science course is selected from the State Core, then a social science course must be selected from the MDC Core. If a social science course is selected from the State core, then a behavioral science course must be selected from the MDC core.

NATURAL SCIENCE (6.00 Credits Required)

Group A – Select 3 credits from the following (State Core):

AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	Prerequisite: BSC 1005L (Optional Laboratory)
BSC 2010	Principles of Biology	3	Pre/Corequisites: BSC 2010L, CHM 1045
BSC 2085	Human Anatomy & Physiology	3	Corequisite: BSC 2085L
CHM 1020	General Education Chemistry	3	
CHM 1045	General Chemistry & Qualitative Analysis	3	Prerequisite: CHM1025 or a passing score on the CART exam, MAC 1105; Corequisite: CHM 1045L
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	Fundamentals of Physics	3	
PHY 2048	Physics with Calculus 1	3	Prerequisites: High School Physics or PHY 1025, PHY 2053 or Departmental Approval and MAC 2311; Corequisite: PHY 2048L
PHY 2053	Physics without Calculus 1	3	Prerequisite: MAC 1114 or MAC 1147; Corequisite: PHY 2053L

---AND---

Group B – Select 3 credits from the following (MDC Core):

AST 1002	Descriptive Astronomy	3
BOT 1010	Botany	3
BSC 1005	General Education Biology	3
BSC 1084	Functional Human Anatomy	3
BSC 2010	Principles of Biology	3
BSC 2020	Human Biology: Fundamentals of Anatomy/Physiology	3
BSC 2085	Anatomy and Physiology I	3
CHM1020	General Education Chemistry	3
CHM1025	Introductory Chemistry	3
CHM1033	Chemistry for Health Sciences	3
CHM1045	General Chemistry and Qualitative Analysis	3
CHM1046	General Chemistry and Qualitative Analysis	3
CHM2200	Survey of Organic Chemistry	3
CHM2210	Organic Chemistry 1	3
CHM2211	Organic Chemistry 2	3
ESC 1000	General Education Earth Science	3
EVR 1001	Introduction to Environmental Science	3

GLY 1010	Physical Geology	3	
GLY1100	Historical Geology	3	
HUN 1201	Essentials of Human Nutrition	3	
MET1010	Introduction to Weather	3	
OCB 1010	Introduction to Marine Biology	3	
OCE 1001	Introduction to Oceanography	3	
PHY1004	Physics with Applications 1	3	
PHY1020	General Education Physics	3	
PHY1025	Basic Physics	3	
PHY2048	Physics with Calculus 1	4	
PHY2049	Physics with Calculus 2	4	
PHY2053	Physics (without Calculus) 1	3	
PHY2054	Physics (without Calculus) 2	3	
PSC 1121	General Education Physical Science	3	
PSC 1515	Energy in the Natural Environment	3	

MATHEMATICS (6.00 Credits Required)
Group A – Select 3 credits from the following group (State Core):

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 2311	Calculus & Analytical Geometry	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1114 and MAC 1140, or MAC 1147
MGF 1130	Mathematical Thinking	3	Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

---A**ND---**
Group B – Select 3 credits from the following group (MDC Core):

QMB 2100	Basic Business Statistics	3	
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

GENERAL EDUCATION ELECTIVE (3.00 Credits Required) (MET WITH A "D" LETTER GRADE OR HIGHER)
Electives may include any appropriate transferrable (Credit Type 1 or 2) courses (Check with Advisor).

LOWER DIVISION ELECTIVES (24.00 Credits Required) (MET WITH A "C" LETTER GRADE OR HIGHER)
Electives may include any appropriate transferrable (Credit Type 1 or 2) courses (Check with Advisor).

UPPER DIVISION REQUIREMENTS (60.00 Credits Required) (MET WITH A "C" LETTER GRADE OR HIGHER)
Business Core (33.00 Credits Required)

FIN 3400	Finance for Non-Financial Managers	3	
MAN 3025	Organization Management	3	
MAN 3065	Business Ethics	3	
MAN 3240	Organizational Behavior	3	
MAN 3301	Human Resources Management	3	
MAN 4113	Managing in a Multifaceted Environment	3	
MAN 4120	Leadership Challenges and Supervision	3	
MAN 4720	Strategic Management Decision Makin	3	
MAN 4900	Capstone Project in Supervision and Management	3	Senior Status or Departmental Permission
MAN 4941	Management Internship	3	Senior Status or Departmental Permission
MAR 3803	Marketing for Managers	3	

HUMAN RESOURCE MANAGEMENT CONCENTRATION (18.00 Credits Required)

MAN 3322	Human Resources Information Systems	3	Prerequisites: MAN 3025 and MAN 3301
MAN 4330	Compensation Management	3	Prerequisites: MAN 3025 and MAN 3301
MAN 4335	Employee Benefit Planning	3	Prerequisites: MAN 3025 and MAN 3301

MAN 4352	Effective Employee Training	3	Prerequisites: MAN 3025 and MAN 3301
MAN 4361	Organizational Staffing	3	Prerequisites: MAN 3025 and MAN 3301
MAN 4402	Employment Law and Regulation	3	Prerequisites: MAN 3025 and MAN 3301

BUSINESS ELECTIVES (9.00 Credits Required) (MET WITH A "D" LETTER GRADE OR HIGHER)

ACG*	FIN*	MAN*	MNA*	QMB*
BUL*	GEB*	MAR*	OST*	SBM*
ECO*	HFT*	MKA*	PUR*	TAX*

Additional Information:
Students should check their individualized Degree Audit Report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami Dade College. This outline includes current graduation requirements.

Students must complete all coursework with a "C" or better to complete the degree.

Miami Dade College

Public Safety Management – Crime Scene Investigation Concentration
Bachelor of Applied Science | Code: P9106 | 120 credits
CIP (1104399991**)**
Effective Term: Fall 2025 (2257)

The four-year Bachelor of Applied Science degree is a workforce-driven baccalaureate degree in Public Safety Management designed to provide education and training, resulting in immediate employment possibilities for students in numerous careers in Public Safety. This comprehensive curriculum emphasizes critical thinking, analytical, written and oral communications, as well as research skills designed to prepare today's learners for entry-level, mid-management, and upper-level supervisory positions within Public Safety agencies such as the FBI, DEA, ICE, U.S. Marshals Service, U.S. Secret Service and others.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (36.00 Credits Required) (MET WITH A GRADE OF "C" OR HIGHER)			
COMMUNICATIONS (6.00 Credits Required)			
ENC 1101	English Composition 1	3	Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
ENC 1102	English Composition 2	3	Prerequisite: ENC 1101
ORAL COMMUNICATION (3.00 Credits Required)			
Select 3 credits from the following:			
ENC 2300	Advanced Composition & Communication	3	Prerequisites: ENC 1101, ENC 1102
SPC 1017	Introduction to Communications	3	
SPC 2608	Introduction to Public Speaking	3	
HUMANITIES (6.00 Credits Required)			
Group A – Select 3 credits from the following (State Core):			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theater Appreciation	3	
---**AND**---			
Group B – Select 3 credits from the following (MDC Core):			
ARC 2701	History of Architecture 1	3	
ARC 2702	History of Architecture 2	3	
ARH 1000	Art Appreciation	3	
ARH 2050	Art History 1	3	
ARH 2051	Art History 2	3	Prerequisite: ARH 2050
ARH 2740	Cinema Appreciation	3	Prerequisite: HUM 1020
DAN 2100	Dance Appreciation	3	
DAN 2130	Dance History 1	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
LIT 2120	A Survey of World Literature	3	Prerequisite: ENC 1101 or ENC 1102 or Equivalent
MUH 2111	Survey of Music History 1	3	
MUH 2112	Survey of Music History 2	3	Prerequisite: MUH 2111
MUL 1010	Music Appreciation	3	
MUL 2380	Jazz and Popular Music in America	3	
PHI 2010	Introduction to Philosophy	3	
PHI 2600	Introduction to Ethics	3	
THE 2000	Theater Appreciation	3	

BEHAVIORAL AND SOCIAL SCIENCE (6.00 Credits Required)

Group A – Select 3 credits from the following (State Core):

AMH 2010	History of the United States to 1877	3
AMH 2020	History of the United States from 1877	3
ANT 2000	Introduction to Anthropology	3
ECO 2013	Principles of Economics (Macro)	3
POS 2041	American Federal Government	3
PSY 2012	Introduction to Psychology	3

---AND---

Group B – Select 3 credits from the following (MDC Core):

AMH 2010	History of the United States to 1877	3
AMH 2020	History of the United States from 1877	3
ANT 2000	Introduction to Anthropology	3
DEP 2000	Human Growth and Development	3
ECO 2013	Principles of Economics	3
POS 2041	American Federal Government	3
PSY 2012	Introduction to Psychology	3
SYG 2000	Introduction to Sociology	3
WOH 2012	History of World Civilization to 1715	3
WOH 2022	History of World Civilization from 1715	3

NOTE: If a behavioral science course is selected from the State Core, then a social science course must be selected from the MDC Core. If a social science course is selected from the State core, then a behavioral science course must be selected from the MDC core.

NATURAL SCIENCE (6.00 Credits Required)

Group A – Select 3 credits from the following (State Core):

AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	Prerequisite: BSC 1005L (Optional Laboratory)
BSC 2010	Principles of Biology	3	Pre/Corequisites: BSC 2010L, CHM 1045
BSC 2085	Human Anatomy & Physiology	3	Corequisite: BSC 2085L
CHM 1020	General Education Chemistry	3	
CHM 1045	General Chemistry & Qualitative Analysis	3	Prerequisite: CHM1025 or a passing score on the CART exam, MAC 1105; Corequisite: CHM 1045L
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	Fundamentals of Physics	3	
PHY 2048	Physics with Calculus 1	3	Prerequisites: High School Physics or PHY 1025, PHY 2053 or Departmental Approval and MAC 2311; Corequisite: PHY 2048L
PHY 2053	Physics without Calculus 1	3	Prerequisite: MAC 1114 or MAC 1147; Corequisite: PHY 2053L

---AND---

Group B – Select 3 credits from the following (MDC Core):

AST 1002	Descriptive Astronomy	3
BOT 1010	Botany	3
BSC 1005	General Education Biology	3
BSC 1084	Functional Human Anatomy	3
BSC 2010	Principles of Biology	3
BSC 2020	Human Biology: Fundamentals of Anatomy/Physiology	3
BSC 2085	Anatomy and Physiology I	3
CHM1020	General Education Chemistry	3
CHM1025	Introductory Chemistry	3
CHM1033	Chemistry for Health Sciences	3
CHM1045	General Chemistry and Qualitative Analysis	3
CHM1046	General Chemistry and Qualitative Analysis	3
CHM2200	Survey of Organic Chemistry	3
CHM2210	Organic Chemistry 1	3

CHM2211	Organic Chemistry 2	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
GLY1100	Historical Geology	3	
HUN 1201	Essentials of Human Nutrition	3	
MET1010	Introduction to Weather	3	
OCB 1010	Introduction to Marine Biology	3	
OCE 1001	Introduction to Oceanography	3	
PHY1004	Physics with Applications 1	3	
PHY1020	General Education Physics	3	
PHY1025	Basic Physics	3	
PHY2048	Physics with Calculus 1	4	
PHY2049	Physics with Calculus 2	4	
PHY2053	Physics (without Calculus) 1	3	
PHY2054	Physics (without Calculus) 2	3	
PSC 1121	General Education Physical Science	3	
PSC 1515	Energy in the Natural Environment	3	

MATHEMATICS 6 Credits*

Select at least 1 course from the 4 State Core options. Lab Credits are not allowed in this area.

State Core 3 Credits

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

MDC Core 3 Credits

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 1106	Integrated College and Precalculus Algebra	5	Prerequisite: MAT1033
MAC 1114	Trigonometry	3	Prerequisite: MAC 1105 or MAC 1106
MAC 1140	Pre-Calculus Algebra	3	Prerequisite: MAC 1105
MAC 1147	Pre-Calculus Algebra and Trigonometry	5	Prerequisite: MAC1105
MAC 2233	Business Calculus	3	Prerequisite: MAC 1105 or MAC1106
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MAC 2312	Calculus and Analytical Geometry 2	4	Prerequisite: MAC 2311
MAC 2313	Calculus and Analytic Geometry 3	4	Prerequisite: MAC 2312
MAD 1100	Discrete Mathematics for Computer Science	3	Prerequisite: MAC1105
MAD 2104	Discrete Mathematics	3	Prerequisite: MAC 1106 or MAC1140
MAP 2302	Introduction to Differential Equations	3	Prerequisite: MAC 2312
MAS 2103	Elementary Linear Algebra	3	Prerequisite: MAC 2311
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
MGF 1131	Mathematics in Context	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).

QMB 2100	Basic Business Statistics (C)	3	Prerequisite: Acceptable score on the Algebra placement test or equivalent
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

GENERAL EDUCATION ELECTIVE (3.00 credits)
See Advisor for Appropriate Course Selection

COMPUTER COMPETENCY
Test type(s) needed: Computer Competency Test (CCT)
---OR---

CGS 1060C	Introduction to Computer Technology and Applications	

PROGRAM PREREQUISITES (9.00 credits)

CCJ 1020	Introduction to Criminal Justice	3
CCJ 1191	Human Behavior in Criminal Justice	3
CJL 2062	Constitutional Law and Legal Procedure or Evidence	3

DISCIPLINE CONTENT (30.00 credits)

CCJ 3032	Crime and the Media	3
CCJ 3663	Female Crime and Delinquency	3
CCJ 3666	Victimology	3
CCJ 3700	Methods of Research in Criminal Justice	3
CCJ 4054	Ethics in the Criminal Justice System	3
CCJ 4450	Criminal Justice Administration	3
CCJ 4641	Organized Crime	3
CCJ 4651	Drugs and Crime	3
CCJ 4660	Crime, Violence, and Schools	3
CJE 3110	Law Enforcement Systems	3
CJE 3115	Police and Society	3
CJE 3444	Crime Prevention	3
CJE 3574	Interpersonal Communications for Law Enforcement	3
CJE 4668	Computer Crime	3
CJL 3044	Civil Law	3
CJL 3564	Judicial Policy Making	3
DSC 4012	Terrorism	3

AREA ELECTIVE (15.00 credits)

CJE 4647	Advanced Crime Scene Technology	3
CJE 4648	Crime Scene Safety	3
CJE 4650	Advanced Crime Scene Investigations	3
CJE 4675	Modern Fingerprint Technology	3
CJL 4133	Criminal Evidence	3

REQUIRED ELECTIVES (30.00 credits)

ASL*	CJE*	FRE2*	HBR2*	POR1*	SPN2*
CCJ*	CJK*	FRW2*	ITA1*	POR2*	
CHI2*	CJL*	GER1*	ITA2*	RUS1*	
CJC*	CJT*	GER2*	JPN1*	RUS2*	
CJD*	FRE1*	HBR1*	JPN2*	SPN1*	

CCJ 1191	Human Behavior in Criminal Justice	3
CCJ 2650	Narcotics and Dangerous Substances	3
CGS 1060C	Introduction to Computer Technology & Applications	4
CJC 1162	Parole and Probation	3
CJE 2600	Criminal Investigation	3
CJJ 2002	Juvenile Delinquency	3
CJL 1100	Criminal Law	3
DSC 1006	Introduction to Homeland Security	3
DSC 2242	Transportation and Border Security	3
DSC 2590	Intelligence Analysis and Security Management	3

Miami Dade College

Public Safety Management - Criminal Justice Concentration
Bachelor of Applied Science | Code: P9110 | 120 credits
CIP (1104399991**)**
Effective Term: Fall 2025 (2257)

Program Description:
The four-year Bachelor of Applied Science degree is a workforce-driven baccalaureate degree in Public Safety Management designed to provide education and training, resulting in immediate employment possibilities for students in numerous careers in Public Safety. This comprehensive curriculum emphasizes critical thinking, analytical, written and oral communications, as well as research skills designed to prepare today's learners for entry-level, mid-management, and upper level supervisory positions within Public Safety agencies such as the FBI, DEA, ICE, U.S. Marshals Service, U.S. Secret Service and others.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS			
COMMUNICATIONS (6.00 credits)			
ENC 1101	English Composition 1	3	
ENC 1102	English Composition 2	3	
ORAL COMMUNICATION (3.00 credits)			
ENC 2300	Advanced Composition and Communication	3	
SPC 1017	Introduction to Communication	3	
SPC 2608	Introduction to Public Speaking	3	
HUMANITIES (6.00 credits)			
Must take 3.0 credits from the following group.			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theater Appreciation	3	
---AND---			
Must take 3.0 credits from the following group.			
ARC 2701	History of Architecture 1	3	
ARC 2702	History of Architecture 2	3	
ARH 1000	Art Appreciation	3	
ARH 2050	Art History 1	3	
ARH 2051	Art History 2	3	
ARH 2740	Cinema Appreciation	3	
DAN 2100	Dance Appreciation	3	
DAN 2130	Dance History 1	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	
LIT 2120	A Survey of World Literature	3	
MUH 2111	Survey of Music History 1	3	
MUH 2112	Survey of Music History 2	3	
MUL 1010	Music Appreciation	3	
MUL 2380	Jazz and Popular Music in America	3	
PHI 2010	Introduction to Philosophy	3	
PHI 2600	Introduction to Ethics	3	
THE 2000	Theater Appreciation	3	
BEHAVIORAL/SOCIAL SCIENCE (6.00 credits)			
Must take 3.0 credits from the following group.			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US Since 1877	3	
ANT 2000	Introduction to Anthropology	3	

ECO 2013	Principles of Economics (Macro)	3
POS 2041	American Federal Government	3
PSY 2012	Introduction to Psychology	3

---AND---

Must take 3.0 credits from the following group.

AMH 2010	History of the US to 1877	3
AMH 2020	History of the US Since 1877	3
ANT 2000	Introduction to Anthropology	3
DEP 2000	Human Growth and Development	3
ECO 2013	Principles of Economics (Macro)	3
POS 2041	American Federal Government	3
PSY 2012	Introduction to Psychology	3
SYG 2000	Introduction to Sociology	3
WOH 2012	History of World Civilization to 1789	3
WOH 2022	History of World Civilization From 1789	3

NATURAL SCIENCES (6.00 credits)

Must take 3.0 credits from the following group.

AST 1002	Descriptive Astronomy	3
BSC 1005	General Education Biology	3
BSC 2010	Principles of Biology	3
BSC 2085	Human Anatomy and Physiology I	3
CHM 1020	General Education Chemistry	3
CHM 1045	General Chemistry & Qualitative Analysis	3
ESC 1000	General Education Earth Science	3
EVR 1001	Introduction to Environmental Science	3
GLY 1010	Physical Geology	3
OCE 1001	Introduction to Oceanography	3
PHY 1020	General Education Physics	3
PHY 2048	Physics with Calculus 1	3
PHY 2053	Physics (without Calculus) 1	3

NOTE: The following course(s) are not allowed for credit in this area: All Labs

---AND---

Must take 3.0 credits from the following group.

AST 1002	Descriptive Astronomy	3
BOT 1010	Botany	3
BSC 1005	General Education Biology	3
BSC 1084	Functional Human Anatomy	3
BSC 2010	Principles of Biology	3
BSC 2020	Human Biology: Fundamentals of Anatomy/Physiology	3
BSC 2085	Anatomy and Physiology I	3
CHM1020	General Education Chemistry	3
CHM1025	Introductory Chemistry	3
CHM1033	Chemistry for Health Sciences	3
CHM1045	General Chemistry and Qualitative Analysis	3
CHM1046	General Chemistry and Qualitative Analysis	3
CHM2200	Survey of Organic Chemistry	3
CHM2210	Organic Chemistry 1	3
CHM2211	Organic Chemistry 2	3
ESC 1000	General Education Earth Science	3
EVR 1001	Introduction to Environmental Science	3
GLY 1010	Physical Geology	3
GLY1100	Historical Geology	3
HUN 1201	Essentials of Human Nutrition	3
MET1010	Introduction to Weather	3
OCB 1010	Introduction to Marine Biology	3
OCE 1001	Introduction to Oceanography	3
PHY1004	Physics with Applications 1	3
PHY1020	General Education Physics	3
PHY1025	Basic Physics	3
PHY2048	Physics with Calculus 1	4
PHY2049	Physics with Calculus 2	4
PHY2053	Physics (without Calculus) 1	3

PHY2054	Physics (without Calculus) 2	3	
PSC 1121	General Education Physical Science	3	
PSC 1515	Energy in the Natural Environment	3	

NOTE: The following course(s) are not allowed for credit in this area: All Labs

MATHEMATICS 6 Credits*

Select at least 1 course from the 4 State Core options. Lab Credits are not allowed in this area.

State Core 3 Credits

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

MDC Core 3 Credits

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 1106	Integrated College and Precalculus Algebra	5	Prerequisite: MAT1033
MAC 1114	Trigonometry	3	Prerequisite: MAC 1105 or MAC 1106
MAC 1140	Pre-Calculus Algebra	3	Prerequisite: MAC 1105
MAC 1147	Pre-Calculus Algebra and Trigonometry	5	Prerequisite: MAC1105
MAC 2233	Business Calculus	3	Prerequisite: MAC 1105 or MAC1106
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MAC 2312	Calculus and Analytical Geometry 2	4	Prerequisite: MAC 2311
MAC 2313	Calculus and Analytic Geometry 3	4	Prerequisite: MAC 2312
MAD 1100	Discrete Mathematics for Computer Science	3	Prerequisite: MAC1105
MAD 2104	Discrete Mathematics	3	Prerequisite: MAC 1106 or MAC1140
MAP 2302	Introduction to Differential Equations	3	Prerequisite: MAC 2312
MAS 2103	Elementary Linear Algebra	3	Prerequisite: MAC 2311
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
MGF 1131	Mathematics in Context	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
QMB 2100	Basic Business Statistics (C)	3	Prerequisite: Acceptable score on the Algebra placement test or equivalent
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

GENERAL EDUCATION ELECTIVE (3.00 credits)

See Advisor for Appropriate Course Selection

COMPUTER COMPETENCY

Test type(s) needed: Computer Competency Test (CCT)

---or---

CGS 1060C Introduction to Computer Technology & Applications

PROGRAM PREREQUISITES (12.00 credits)

CCJ 1010	Introduction to Criminology	3
CCJ 1020	Introduction to Criminal Justice	3
CJC 1000	Introduction to Corrections	3
CJL 2062	Constitutional Law and Legal Procedure or Evidence	3

DISCIPLINE CONTENT (30.00 credits)

CCJ 3032	Crime and the Media	3
CCJ 3663	Female Crime and Delinquency	3
CCJ 3666	Victimology	3
CCJ 3700	Methods of Research in Criminal Justice	3
CCJ 4054	Ethics in the Criminal Justice System	3
CCJ 4450	Criminal Justice Administration	3
CCJ 4651	Drugs and Crime	3
CCJ 4660	Crime, Violence, and Schools	3
CJE 3110	Law Enforcement Systems	3
CJE 3444	Crime Prevention	3
CJE 3574	Interpersonal Communications for Law Enforcement	3
CJE 4668	Computer Crime	3
CJL 3044	Civil Law	3
CJL 3564	Judicial Policy Making	3

AREA ELECTIVE (15.00 credits)

CCJ 4641	Organized Crime	3
CJC 4163	Advanced Probation & Parole	3
CJE 3115	Police and Society	3
CJE 4615	Advanced Criminal Investigations	3
DSC 4012	Terrorism	3

REQUIRED ELECTIVES (27.00 credits)

ASL*	CJE*	FRE2*	HBR2*	POR1*	SPN2*
CCJ*	CJK*	FRW2*	ITA1*	POR2*	
CHI2*	CJL*	GER1*	ITA2*	RUS1*	
CJC*	CJT*	GER2*	JPN1*	RUS2*	
CJD*	FRE1*	HBR1*	JPN2*	SPN1*	

CCJ 1191	Human Behavior in Criminal Justice	3
CCJ 2650	Narcotics and Dangerous Substances	3
CGS 1060C	Introduction to Computer Technology & Applications	4
CJC 1162	Parole and Probation	3
CJE 2600	Criminal Investigation	3
CJJ 2002	Juvenile Delinquency	3
CJL 1100	Criminal Law	3
DSC 1006	Introduction to Homeland Security	3
DSC 2242	Transportation and Border Security	3
DSC 2590	Intelligence Analysis and Security Management	3

Miami Dade College

Public Safety Management – Emergency Management Concentration
Bachelor of Applied Science | Code: P9105 | 120 credits
CIP (1104399991**)**
Effective Term: Fall 2025 (2257)

The four-year Bachelor of Applied Science degree is a workforce-driven baccalaureate degree in Public Safety Management designed to provide education and training, resulting in immediate employment possibilities for students in numerous careers in Public Safety. This comprehensive curriculum emphasizes critical thinking, analytical, written and oral communications, as well as research skills designed to prepare today's learners for entry-level, mid-management, and upper level supervisory positions within Public Safety agencies such as the FBI, DEA, ICE, U.S. Marshals Service, U.S. Secret Service and others.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS			
COMMUNICATIONS (6.00 credits)			
ENC 1101	English Composition 1	3	
ENC 1102	English Composition 2	3	
ORAL COMMUNICATION (3.00 credits)			
ENC 2300	Advanced Composition and Communication	3	
SPC 1017	Introduction to Communication	3	
SPC 2608	Introduction to Public Speaking	3	
HUMANITIES (6.00 credits)			
Must take 3.0 credits from the following group.			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theater Appreciation	3	
---AND---			
Must take 3.0 credits from the following group.			
ARC 2701	History of Architecture 1	3	
ARC 2702	History of Architecture 2	3	
ARH 1000	Art Appreciation	3	
ARH 2050	Art History 1	3	
ARH 2051	Art History 2	3	
ARH 2740	Cinema Appreciation	3	
DAN 2100	Dance Appreciation	3	
DAN 2130	Dance History 1	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	
LIT 2120	A Survey of World Literature	3	
MUH 2111	Survey of Music History 1	3	
MUH 2112	Survey of Music History 2	3	
MUL 1010	Music Appreciation	3	
MUL 2380	Jazz and Popular Music in America	3	
PHI 2010	Introduction to Philosophy	3	
PHI 2600	Introduction to Ethics	3	
THE 2000	Theater Appreciation	3	
BEHAVIORAL/SOCIAL SCIENCE (6.00 credits)			
Must take 3.0 credits from the following group.			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US Since 1877	3	
ANT 2000	Introduction to Anthropology	3	
ECO 2013	Principles of Economics (Macro)	3	

POS 2041	American Federal Government	3
PSY 2012	Introduction to Psychology	3

---AND---

Must take 3.0 credits from the following group.

AMH 2010	History of the US to 1877	3
AMH 2020	History of the US Since 1877	3
ANT 2000	Introduction to Anthropology	3
DEP 2000	Human Growth and Development	3
ECO 2013	Principles of Economics (Macro)	3
POS 2041	American Federal Government	3
PSY 2012	Introduction to Psychology	3
SYG 2000	Introduction to Sociology	3
WOH 2012	History of World Civilization to 1789	3
WOH 2022	History of World Civilization From 1789	3

NATURAL SCIENCES (6.00 credits)

Must take 3.0 credits from the following group.

AST 1002	Descriptive Astronomy	3
BSC 1005	General Education Biology	3
BSC 2010	Principles of Biology	3
BSC 2085	Human Anatomy and Physiology I	3
CHM 1020	General Education Chemistry	3
CHM 1045	General Chemistry & Qualitative Analysis	3
ESC 1000	General Education Earth Science	3
EVR 1001	Introduction to Environmental Science	3
GLY 1010	Physical Geology	3
OCE 1001	Introduction to Oceanography	3
PHY 1020	General Education Physics	3
PHY 2048	Physics with Calculus 1	3
PHY 2053	Physics (without Calculus) 1	3

NOTE: The following course(s) are not allowed for credit in this area: All Labs

---AND---

Must take 3.0 credits from the following group.

AST 1002	Descriptive Astronomy	3
BOT 1010	Botany	3
BSC 1005	General Education Biology	3
BSC 1084	Functional Human Anatomy	3
BSC 2010	Principles of Biology	3
BSC 2020	Human Biology: Fundamentals of Anatomy/Physiology	3
BSC 2085	Anatomy and Physiology I	3
CHM1020	General Education Chemistry	3
CHM1025	Introductory Chemistry	3
CHM1033	Chemistry for Health Sciences	3
CHM1045	General Chemistry and Qualitative Analysis	3
CHM1046	General Chemistry and Qualitative Analysis	3
CHM2200	Survey of Organic Chemistry	3
CHM2210	Organic Chemistry 1	3
CHM2211	Organic Chemistry 2	3
ESC 1000	General Education Earth Science	3
EVR 1001	Introduction to Environmental Science	3
GLY 1010	Physical Geology	3
GLY1100	Historical Geology	3
HUN 1201	Essentials of Human Nutrition	3
MET1010	Introduction to Weather	3
OCB 1010	Introduction to Marine Biology	3
OCE 1001	Introduction to Oceanography	3
PHY1004	Physics with Applications 1	3
PHY1020	General Education Physics	3
PHY1025	Basic Physics	3
PHY2048	Physics with Calculus 1	4
PHY2049	Physics with Calculus 2	4
PHY2053	Physics (without Calculus) 1	3
PHY2054	Physics (without Calculus) 2	3

PSC 1121	General Education Physical Science	3	
PSC 1515	Energy in the Natural Environment	3	

NOTE: The following course(s) are not allowed for credit in this area: All Labs

MATHEMATICS 6 Credits*
Select at least 1 course from the 4 State Core options. Lab Credits are not allowed in this area.

State Core 3 Credits

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

MDC Core 3 Credits

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 1106	Integrated College and Precalculus Algebra	5	Prerequisite: MAT1033
MAC 1114	Trigonometry	3	Prerequisite: MAC 1105 or MAC 1106
MAC 1140	Pre-Calculus Algebra	3	Prerequisite: MAC 1105
MAC 1147	Pre-Calculus Algebra and Trigonometry	5	Prerequisite: MAC1105
MAC 2233	Business Calculus	3	Prerequisite: MAC 1105 or MAC1106
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MAC 2312	Calculus and Analytical Geometry 2	4	Prerequisite: MAC 2311
MAC 2313	Calculus and Analytic Geometry 3	4	Prerequisite: MAC 2312
MAD 1100	Discrete Mathematics for Computer Science	3	Prerequisite: MAC1105
MAD 2104	Discrete Mathematics	3	Prerequisite: MAC 1106 or MAC1140
MAP 2302	Introduction to Differential Equations	3	Prerequisite: MAC 2312
MAS 2103	Elementary Linear Algebra	3	Prerequisite: MAC 2311
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
MGF 1131	Mathematics in Context	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
QMB 2100	Basic Business Statistics (C)	3	Prerequisite: Acceptable score on the Algebra placement test or equivalent
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131(C)
STA 2023	Statistical Methods (C)		

GENERAL EDUCATION ELECTIVE (3.00 credits)
See Advisor for Appropriate Course Selection

COMPUTER COMPETENCY
Test type(s) needed: Computer Competency Test (CCT)
---or---

CGS 1060C	Introduction to Computer Technology & Applications		

PROGRAM PREREQUISITES (9.00 credits)

CCJ 1010	Introduction to Criminology	3
CCJ 1020	Introduction to Criminal Justice	3
CJC 1000	Introduction to Corrections	3
CJL 2062	Constitutional Law and Legal Procedure or Evidence	3

DISCIPLINE CONTENT (30.00 credits)

CCJ 3032	Crime and the Media	3
CCJ 3663	Female Crime and Delinquency	3
CCJ 3666	Victimology	3
CCJ 3700	Methods of Research in Criminal Justice	3
CCJ 4054	Ethics in the Criminal Justice System	3
CCJ 4450	Criminal Justice Administration	3
CCJ 4641	Organized Crime	3
CCJ 4651	Drugs and Crime	3
CCJ 4660	Crime, Violence, and Schools	3
CJE 3110	Law Enforcement Systems	3
CJE 3115	Police and Society	3
CJE 3444	Crime Prevention	3
CJE 3574	Interpersonal Communications for Law Enforcement	3
CJE 4668	Computer Crime	3
CJL 3044	Civil Law	3
CJL 3564	Judicial Policy Making	3
DSC 4012	Terrorism	3

AREA ELECTIVE (15.00 credits)

DSC 4014	Domestic & International Terrorism	3
DSC 4214	Catastrophic Event Response Management	3
DSC 4215	Emergency Planning & Security Measures	3
FES 4003	Public Policy in Emergency Management	3
FES 4823	Integrated Emergency Management Planning Systems	3

REQUIRED ELECTIVES (30.00 credits)

ASL*	CJE*	FRE2*	HBR2*	POR1*	SPN2*
CCJ*	CJK*	FRW2*	ITA1*	POR2*	
CHI2*	CJL*	GER1*	ITA2*	RUS1*	
CJC*	CJT*	GER2*	JPN1*	RUS2*	
CJD*	FRE1*	HBR1*	JPN2*	SPN1*	

CCJ 1191	Human Behavior in Criminal Justice	3
CCJ 2650	Narcotics and Dangerous Substances	3
CGS 1060C	Introduction to Computer Technology & Applications	4
CJC 1162	Parole and Probation	3
CJE 2600	Criminal Investigation	3
CJJ 2002	Juvenile Delinquency	3
CJL 1100	Criminal Law	3
DSC 1006	Introduction to Homeland Security	3
DSC 2242	Transportation and Border Security	3
DSC 2590	Intelligence Analysis and Security Management	3

Miami Dade College

Supply Chain Management
Bachelor of Applied Science | Code: P9300 | 120 Credits
CIP (1105202032**)**
Effective Term: Fall 2025 (2257)

Supply chain management is an interdisciplinary field that emphasizes cross-functional integration of diverse business functions, facilities, and activities and seeks to manage those activities to enhance a company's competitive advantage. The Bachelor of Applied Science with a major in Supply Chain Management (BAS-SCM) is designed to provide knowledge of the supply chain while exploring the risks, operations, logistics, economics, regulatory issues, change management, forecasting, resource allocation, production planning, inventory management, customer delivery, after-sales support and service and other functions basic to business.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION – 36 CREDITS REQUIRED			
Communications – 6 Credits Required			
ENC 1101	English Composition 1	3	Prerequisite: Approved Placement Scores
ENC 1102	English Composition 2	3	Prerequisite: ENC 1101
Oral Communications – 3 Credits Required			
ENC 2300	Advanced Composition & Communication	3	Pre-Req: ENC 1101, 1102
SPC 1017	Introduction to Communications	3	
SPC 2608	Introduction to Public Speaking	3	
Humanities – 6 Credits Required			
Group A – Select 3 Credits from the following (State Core):			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theater Appreciation	3	
---AND---			
Group B – Select 3 Credits from the following (MDC Core):			
ARC 2701	History of Architecture 1	3	
ARC 2702	History of Architecture 2	3	
ARH 1000	Art Appreciation	3	
ARH 2050	Art History 1	3	Pre-Req: ARH 2050
ARH 2051	Art History 2	3	
ARH 2740	Cinema Appreciation	3	
DAN 2100	Dance Appreciation	3	
DAN 2130	Dance History 1	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	
LIT 2120	A Survey of World Literature	3	Pre-Req: ENC 1101 or ENC 1102 or Equivalent
MUH 2111	Survey of Music History 1	3	
MUH 2112	Survey of Music History 2	3	Pre-Req: MUH 2112
MUL 1010	Music Appreciation	3	
MUL 2380	Jazz and Popular Music in America	3	
PHI 2010	Introduction to Philosophy	3	
PHI 2600	Introduction to Ethics	3	
THE 2000	Theater Appreciation	3	
Behavioral and Social Science – 6 Credits Required			
Must take 3.0 credits from the following group.			
AMH 2010	History of the US to 1877	3	

AMH 2020	History of the US Since 1877	3
ANT 2000	Introduction to Anthropology	3
ECO 2013	Principles of Economics (Macro)	3
POS 2041	American Federal Government	3
PSY 2012	Introduction to Psychology	3

---AND---

Must take 3.0 credits from the following group.

AMH 2010	History of the US to 1877	3
AMH 2020	History of the US Since 1877	3
ANT 2000	Introduction to Anthropology	3
DEP 2000	Human Growth and Development	3
ECO 2013	Principles of Economics (Macro)	3
POS 2041	American Federal Government	3
PSY 2012	Introduction to Psychology	3
SYG 2000	Introduction to Sociology	3
WOH 2012	History of World Civilization to 1789	3
WOH 2022	History of World Civilization From 1789	3

Natural Science – 6 Credits Required

Group A – Select 3 Credits from the following*

AST 1002	Descriptive Astronomy	3
BSC 1005	General Education Biology	3
BSC 2010	Principles of Biology	3
BSC 2085	Human Anatomy and Physiology I	3
CHM 1020	General Education Chemistry	3
CHM 1045	General Chemistry & Qualitative Analysis	3
ESC 1000	General Education Earth Science	3
EVR 1001	Introduction to Environmental Science	3
GLY 1010	Physical Geology	3
OCE 1001	Introduction to Oceanography	3
PHY 1020	General Education Physics	3
PHY 2048	Physics with Calculus 1	3
PHY 2053	Physics (without Calculus) 1	3

---AND---

Group B – Select 3 Credits from the following*

AST 1002	Descriptive Astronomy	3
BOT 1010	Botany	3
BSC 1005	General Education Biology	3
BSC 1084	Functional Human Anatomy	3
BSC 2010	Principles of Biology	3
BSC 2020	Human Biology: Fundamentals of Anatomy/Physiology	3
BSC 2085	Anatomy and Physiology I	3
CHM1020	General Education Chemistry	3
CHM1025	Introductory Chemistry	3
CHM1033	Chemistry for Health Sciences	3
CHM1045	General Chemistry and Qualitative Analysis	3
CHM1046	General Chemistry and Qualitative Analysis	3
CHM2200	Survey of Organic Chemistry	3
CHM2210	Organic Chemistry 1	3
CHM2211	Organic Chemistry 2	3
ESC 1000	General Education Earth Science	3
EVR 1001	Introduction to Environmental Science	3
GLY 1010	Physical Geology	3
GLY1100	Historical Geology	3
HUN 1201	Essentials of Human Nutrition	3
MET1010	Introduction to Weather	3
OCB 1010	Introduction to Marine Biology	3
OCE 1001	Introduction to Oceanography	3
PHY1004	Physics with Applications 1	3
PHY1020	General Education Physics	3
PHY1025	Basic Physics	3
PHY2048	Physics with Calculus 1	4
PHY2049	Physics with Calculus 2	4

PHY2053	Physics (without Calculus) 1	3	
PHY2054	Physics (without Calculus) 2	3	
PSC 1121	General Education Physical Science	3	
PSC 1515	Energy in the Natural Environment	3	

*** ANY COURSE WITH THE FOLLOWING PREFIX EXCLUDING LABS.**

MATHEMATICS 6 Credits*
Select at least 1 course from the 4 State Core options. Lab Credits are not allowed in this area.

State Core 3 Credits

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

MDC Core 3 Credits

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 1106	Integrated College and Precalculus Algebra	5	Prerequisite: MAT1033
MAC 1114	Trigonometry	3	Prerequisite: MAC 1105 or MAC 1106
MAC 1140	Pre-Calculus Algebra	3	Prerequisite: MAC 1105
MAC 1147	Pre-Calculus Algebra and Trigonometry	5	Prerequisite: MAC1105
MAC 2233	Business Calculus	3	Prerequisite: MAC 1105 or MAC1106
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MAC 2312	Calculus and Analytical Geometry 2	4	Prerequisite: MAC 2311
MAC 2313	Calculus and Analytic Geometry 3	4	Prerequisite: MAC 2312
MAD 1100	Discrete Mathematics for Computer Science	3	Prerequisite: MAC1105
MAD 2104	Discrete Mathematics	3	Prerequisite: MAC 1106 or MAC1140
MAP 2302	Introduction to Differential Equations	3	Prerequisite: MAC 2312
MAS 2103	Elementary Linear Algebra	3	Prerequisite: MAC 2311
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
MGF 1131	Mathematics in Context	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
QMB 2100	Basic Business Statistics (C)	3	Prerequisite: Acceptable score on the Algebra placement test or equivalent
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

General Education Elective – 3 Credits Required
Electives may include any appropriate transferrable (Credit Type 1 or 2) courses (Check with Advisor)

Computer Competency Requirement
Computer Competency Test (CCT)
Or

CGS 1060	Introduction to Microcomputer Usage

***CREDITS COUNT TOWARDS THE PROGRAM ELECTIVE**

LOWER DIVISION/COMMON PREREQUISITE REQUIREMENTS – 24 Credits Required

GROUP A – Common Prerequisite Course Requirements 17 Credits

ACG 2021	Financial Accounting	3	Corequisite: ACG 2021L
ACG 2021L	Financial Accounting Lab	1	Corequisite: ACG 2021
ACG 2071	Managerial Accounting	3	Prerequisite: ACG 2001, 2011 or 2021; Corequisite:
ACG 2071L	ACG 2071L Managerial Accounting Lab Corequisite: ACG 2071	1	Prerequisite: ACG 2021, 2021L;
ECO 2013	Principles of Economics (Macro)	3	
ECO 2023	Principles of Economics (Micro)	3	
TRA 1154	Intro to Supply Chain Management	3	
TRA 2010	Intro to Logistics and Transportation	3	

---AND---

GROUP B – 7 Credits

ACG*	CGS*	HFT*	MAN*	STA*
BAN*	FIN*	ISM*	MAR*	TAX*
BUL*	GEB*	MAC*	QMB*	TRA*

UPPER DIVISION CORE REQUIREMENTS – 33 Credits Required

BUL 4461	Law of International Trade	3	Prerequisite: GEB 3358
FIN 3403	Financial Management	3	Prerequisites: ACG 2071/L, QMB 2100 or STA 2023
GEB 3358	International Negotiations and Transactions	3	Prerequisite: TRA 1154
MAN 3506	Operations Management	3	Prerequisite: QMB 2100 or STA 2023
MAN 3554	Safety and Risk Management	1	
MAN 3583	Project Management	3	
MAN 4520	Quality Management	3	
MAN 4523	Production Information Systems	3	
MAN 4597	Global Supply Chain Management	3	Prerequisite: MAN 3506
MAN 4940	Field Study and Research	2	Prerequisites: MAN 3583, TRA 1154
MAN 3562	Purchasing, Inventory and Warehouse Management	3	
MAR 4203	Supply Chain Marketing	3	Prerequisites: MAN 3506, TRA 1154

ELECTIVES – 27 CREDITS REQUIRED

GROUP A - UPPER DIVISION ELECTIVES – 15 CREDITS REQUIRED

GEB 4363	Import/Export Management	3	Prerequisite: TRA 2010
MAN 3504	Production Operations and Logistics Management	3	Prerequisite: TRA 1154
MAN 3786	Sustainable Enterprise Planning	3	
MAN 4593	Supply Chain Management Theory & Methodology	2	Prerequisites: MAN 3583, MAN 4523
TRA 3034	Transportation & Traffic Management	3	Prerequisite: TRA 1154
TRA 3132	Purchasing and Inventory Management	3	Prerequisite: TRA 1154
TRA 4234	Warehouse Management	3	Prerequisites: MAN 3506, QMB 2100 or STA 2023

---AND---

GROUP B - ELECTIVES – 12 CREDITS REQUIRED

ACG*	HBR*	PUR*	FIN*	JPN*	TAX*
GER*	POR*	CHI*	ITA*	STA*	GEB*
MAR*	BUL*	ISM*	SPN*	FRW*	MAN*
BAN*	HFT*	QMB*	FRE*	MAC*	TRA*

Additional Information:

Students should check their individualized Degree Audit Report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami Dade College. This outline includes current graduation requirements.

Students must complete all coursework with a "C" or better to complete the degree.

Miami Dade College

Supply Chain Management – Procurement Management Concentration
Bachelor of Applied Science | Code: P9301 | 120 Credits
CIP (1105202032)
Effective Term: Fall 2025 (2257)

Supply chain management is an interdisciplinary field that emphasizes cross-functional integration of diverse business functions, facilities, and activities and seeks to manage those activities to enhance a company's competitive advantage. The Bachelor of Applied Science in Supply Chain Management (BAS-SCM) is designed to provide knowledge of the supply chain while exploring the risks, operations, logistics, economics, regulatory issues, change management, forecasting, resource allocation, production planning, inventory management, customer delivery, after-sales support and service and other functions basic to business.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION – 36 CREDITS REQUIRED			
Communications – 6 Credits Required			
ENC 1101	English Composition 1	3	Prerequisite: Approved Placement Scores
ENC 1102	English Composition 2	3	Prerequisite: ENC 1101
Oral Communications – 3 Credits Required			
ENC 2300	Advanced Composition & Communication	3	Pre-Req: ENC 1101, 1102
SPC 1017	Introduction to Communications	3	
SPC 2608	Introduction to Public Speaking	3	
Humanities – 6 Credits Required			
Group A – Select 3 Credits from the following (State Core):			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theater Appreciation	3	
---AND---			
Group B – Select 3 Credits from the following (MDC Core):			
ARC 2701	History of Architecture 1	3	
ARC 2702	History of Architecture 2	3	
ARH 1000	Art Appreciation	3	
ARH 2050	Art History 1	3	Pre-Req: ARH 2050
ARH 2051	Art History 2	3	
ARH 2740	Cinema Appreciation	3	
DAN 2100	Dance Appreciation	3	
DAN 2130	Dance History 1	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	
LIT 2120	A Survey of World Literature	3	Pre-Req: ENC 1101 or ENC 1102 or Equivalent
MUH 2111	Survey of Music History 1	3	
MUH 2112	Survey of Music History 2	3	Pre-Req: MUH 2112
MUL 1010	Music Appreciation	3	
MUL 2380	Jazz and Popular Music in America	3	
PHI 2010	Introduction to Philosophy	3	
PHI 2600	Introduction to Ethics	3	
THE 2000	Theater Appreciation	3	

Behavioral and Social Science – 6 Credits Required
Must take 3.0 credits from the following group.

AMH 2010	History of the US to 1877	3
AMH 2020	History of the US Since 1877	3
ANT 2000	Introduction to Anthropology	3
ECO 2013	Principles of Economics (Macro)	3
POS 2041	American Federal Government	3
PSY 2012	Introduction to Psychology	3

---AND---
Must take 3.0 credits from the following group.

AMH 2010	History of the US to 1877	3
AMH 2020	History of the US Since 1877	3
ANT 2000	Introduction to Anthropology	3
DEP 2000	Human Growth and Development	3
ECO 2013	Principles of Economics (Macro)	3
POS 2041	American Federal Government	3
PSY 2012	Introduction to Psychology	3
SYG 2000	Introduction to Sociology	3
WOH 2012	History of World Civilization to 1789	3
WOH 2022	History of World Civilization From 1789	3

Natural Science – 6 Credits Required
Group A – Select 3 Credits from the following*

AST 1002	Descriptive Astronomy	3
BSC 1005	General Education Biology	3
BSC 2010	Principles of Biology	3
BSC 2085	Human Anatomy and Physiology I	3
CHM 1020	General Education Chemistry	3
CHM 1045	General Chemistry & Qualitative Analysis	3
ESC 1000	General Education Earth Science	3
EVR 1001	Introduction to Environmental Science	3
GLY 1010	Physical Geology	3
OCE 1001	Introduction to Oceanography	3
PHY 1020	General Education Physics	3
PHY 2048	Physics with Calculus 1	3
PHY 2053	Physics (without Calculus) 1	3

---AND---
Group B – Select 3 Credits from the following*

AST 1002	Descriptive Astronomy	3
BOT 1010	Botany	3
BSC 1005	General Education Biology	3
BSC 1084	Functional Human Anatomy	3
BSC 2010	Principles of Biology	3
BSC 2020	Human Biology: Fundamentals of Anatomy/Physiology	3
BSC 2085	Anatomy and Physiology I	3
CHM1020	General Education Chemistry	3
CHM1025	Introductory Chemistry	3
CHM1033	Chemistry for Health Sciences	3
CHM1045	General Chemistry and Qualitative Analysis	3
CHM1046	General Chemistry and Qualitative Analysis	3
CHM2200	Survey of Organic Chemistry	3
CHM2210	Organic Chemistry 1	3
CHM2211	Organic Chemistry 2	3
ESC 1000	General Education Earth Science	3
EVR 1001	Introduction to Environmental Science	3
GLY 1010	Physical Geology	3
GLY1100	Historical Geology	3
HUN 1201	Essentials of Human Nutrition	3
MET1010	Introduction to Weather	3
OCB 1010	Introduction to Marine Biology	3
OCE 1001	Introduction to Oceanography	3
PHY1004	Physics with Applications 1	3

PHY1020	General Education Physics	3	
PHY1025	Basic Physics	3	
PHY2048	Physics with Calculus 1	4	
PHY2049	Physics with Calculus 2	4	
PHY2053	Physics (without Calculus) 1	3	
PHY2054	Physics (without Calculus) 2	3	
PSC 1121	General Education Physical Science	3	
PSC 1515	Energy in the Natural Environment	3	

* Any course with the following prefix excluding labs.

MATHEMATICS 6 Credits*
Select at least 1 course from the 4 State Core options. Lab Credits are not allowed in this area.

State Core 3 Credits

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

MDC Core 3 Credits

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 1106	Integrated College and Precalculus Algebra	5	Prerequisite: MAT1033
MAC 1114	Trigonometry	3	Prerequisite: MAC 1105 or MAC 1106
MAC 1140	Pre-Calculus Algebra	3	Prerequisite: MAC 1105
MAC 1147	Pre-Calculus Algebra and Trigonometry	5	Prerequisite: MAC1105
MAC 2233	Business Calculus	3	Prerequisite: MAC 1105 or MAC1106
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MAC 2312	Calculus and Analytical Geometry 2	4	Prerequisite: MAC 2311
MAC 2313	Calculus and Analytic Geometry 3	4	Prerequisite: MAC 2312
MAD 1100	Discrete Mathematics for Computer Science	3	Prerequisite: MAC1105
MAD 2104	Discrete Mathematics	3	Prerequisite: MAC 1106 or MAC1140
MAP 2302	Introduction to Differential Equations	3	Prerequisite: MAC 2312
MAS 2103	Elementary Linear Algebra	3	Prerequisite: MAC 2311
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
MGF 1131	Mathematics in Context	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
QMB 2100	Basic Business Statistics (C)	3	Prerequisite: Acceptable score on the Algebra placement test or equivalent
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

General Education Elective – 3 Credits Required
Electives may include any appropriate transferrable (Credit Type 1 or 2) courses (Check with Advisor)

Computer Competency Requirement

Computer Competency Test (CCT)

Or

CGS 1060	Introduction to Microcomputer Usage	*Credits count towards the Program Elective.

LOWER DIVISION/COMMON PREREQUISITE REQUIREMENTS – 24 Credits Required

GROUP A – Common Prerequisite Course Requirements 17 Credits

ACG 2021	Financial Accounting	3	Corequisite: ACG 2021L
ACG 2021L	Financial Accounting Lab	1	Corequisite: ACG 2021
ACG 2071	Managerial Accounting	3	Prerequisite: ACG 2001, 2011 or 2021; Corequisite: ACG 2071L
ACG 2071L	Managerial Accounting Lab Corequisite: ACG 2071	1	Prerequisite: ACG 2021, 2021L;
ECO 2013	Principles of Economics (Macro)	3	
ECO 2023	Principles of Economics (Micro)	3	
TRA 1154	Intro to Supply Chain Management	3	
TRA 2010	Intro to Logistics and Transportation	3	

---AND---

GROUP B – 7 Credits

ACG*	CGS*	HFT*	MAN*	STA*
BAN*	FIN*	ISM*	MAR*	TAX*
BUL*	GEB*	MAC*	QMB*	TRA*

UPPER DIVISION CORE REQUIREMENTS – 33 Credits Required

BUL 4461	Law of International Trade	3	Prerequisite: GEB 3358
FIN 3403	Financial Management	3	Prerequisites: ACG 2071/L, QMB 2100 or STA 2023
GEB 3358	International Negotiations and Transactions	3	Prerequisite: TRA 1154
MAN 3506	Operations Management	3	Prerequisite: QMB 2100 or STA 2023
MAN 3554	Safety and Risk Management	1	
MAN 3562	Purchasing, Inventory and Warehouse Management	3	
MAN 3583	Project Management	3	
MAN 4520	Quality Management	3	
MAN 4523	Production Information Systems	3	
MAN 4597	Global Supply Chain Management	3	Prerequisite: MAN 3506
MAN 4940	Field Study and Research	2	Prerequisites: MAN 3583, TRA 1154
MAR 4203	Supply Chain Marketing	3	Prerequisites: MAN 3506, TRA 1154

CONCENTRATION CORE – 27 CREDITS REQUIRED
GROUP A – CONCENTRATION CORE – 9 CREDITS REQUIRED

MAN 3577	Procurement for Major Projects	3
MAN 3731	Assessing and Managing Project Risk	3
MAN 4570	Purchasing for Industry	3

---AND---
GROUP B – UPPER DIVISION ELECTIVES – 9 CREDITS REQUIRED

GEB 4363	Import/Export Management	3	Prerequisite: TRA 2010
MAN 3504	Production Operations and Logistics Management	3	Prerequisite: TRA 1154
MAN 3786	Sustainable Enterprise Planning	3	
MAN 4593	Supply Chain Management Theory & Methodology	2	Prerequisites: MAN 3583, 4523
TRA 3034	Transportation & Traffic Management	3	Prerequisite: TRA 1154
TRA 3132	Purchasing and Inventory Management	3	Prerequisite: TRA 1154
TRA 4234	Warehouse Management	3	Prerequisites: MAN 3506, QMB 2100 or STA 2023

---AND---
GROUP C - ELECTIVES – 9 CREDITS REQUIRED

ACG*	CGS*	HFT*	MAN*	STA*
BAN*	FIN*	ISM*	MAR*	TAX*
BUL*	GEB*	MAC*	QMB*	TRA*

Additional Information:
Students should check their individualized Degree Audit Report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami Dade College. This outline includes current graduation requirements.

Students must complete all coursework with a "C" or better to complete the degree.

Miami Dade College

Supply Chain Management – Project Management Concentration
Bachelor of Applied Science | Code: P9302 | 120 Credits
CIP (1105202032)
Effective Term: Fall 2025 (2257)

Supply chain management is an interdisciplinary field that emphasizes cross-functional integration of diverse business functions, facilities, and activities and seeks to manage those activities to enhance a company's competitive advantage. The Bachelor of Applied Science in Supply Chain Management (BAS-SCM) with a concentration in Project Management, is designed to provide knowledge of the supply chain while exploring the risks, operations, logistics, economics, regulatory issues, change management, forecasting, resource allocation, production planning, inventory management, customer delivery, after-sales support and service and other functions basic to business.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION – 36 CREDITS REQUIRED			
Communications – 6 Credits Required			
ENC 1101	English Composition 1	3	Prerequisite: Approved Placement Scores
ENC 1102	English Composition 2	3	Prerequisite: ENC 1101
Oral Communications – 3 Credits Required			
ENC 2300	Advanced Composition & Communication	3	Prerequisites: ENC 1101, ENC 1102
SPC 1017	Introduction to Communications	3	
SPC 2608	Introduction to Public Speaking	3	
Humanities – 6 Credits Required			
Group A – Select 3 Credits from the following (State Core):			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theater Appreciation	3	
---AND---			
Group B – Select 3 Credits from the following (MDC Core):			
ARC 2701	History of Architecture 1	3	
ARC 2702	History of Architecture 2	3	
ARH 1000	Art Appreciation	3	
ARH 2050	Art History 1	3	Pre-Req: ARH 2050
ARH 2051	Art History 2	3	
ARH 2740	Cinema Appreciation	3	
DAN 2100	Dance Appreciation	3	
DAN 2130	Dance History 1	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	
LIT 2120	A Survey of World Literature	3	Pre-Req: ENC 1101 or ENC 1102 or Equivalent
MUH 2111	Survey of Music History 1	3	
MUH 2112	Survey of Music History 2	3	Pre-Req: MUH 2112
MUL 1010	Music Appreciation	3	
MUL 2380	Jazz and Popular Music in America	3	
PHI 2010	Introduction to Philosophy	3	
PHI 2600	Introduction to Ethics	3	
THE 2000	Theater Appreciation	3	

Behavioral and Social Science – 6 Credits Required
Must take 3.0 credits from the following group.

AMH 2010	History of the US to 1877	3
AMH 2020	History of the US Since 1877	3
ANT 2000	Introduction to Anthropology	3
ECO 2013	Principles of Economics (Macro)	3
POS 2041	American Federal Government	3
PSY 2012	Introduction to Psychology	3

---AND---
Must take 3.0 credits from the following group.

AMH 2010	History of the US to 1877	3
AMH 2020	History of the US Since 1877	3
ANT 2000	Introduction to Anthropology	3
ANT 2410	Introduction to Cultural Anthropology	3
CLP 1006	Psychology of Personal Effectiveness	3
DEP 2000	Human Growth and Development	3
ECO 2013	Principles of Economics (Macro)	3
ISS 1120	The Social Environment	3
ISS 1161	The Individual in Society	3
POS 2041	American Federal Government	3
PSY 2012	Introduction to Psychology	3
SYG 2000	Introduction to Sociology	3
WOH 2012	History of World Civilization to 1789	3
WOH 2022	History of World Civilization From 1789	3

Natural Science – 6 Credits Required
Group A – Select 3 Credits from the following*

AST 1002	Descriptive Astronomy	3
BSC 1005	General Education Biology	3
BSC 2010	Principles of Biology	3
BSC 2085	Human Anatomy and Physiology I	3
CHM 1020	General Education Chemistry	3
CHM 1045	General Chemistry & Qualitative Analysis	3
ESC 1000	General Education Earth Science	3
EVR 1001	Introduction to Environmental Science	3
GLY 1010	Physical Geology	3
OCE 1001	Introduction to Oceanography	3
PHY 1020	General Education Physics	3
PHY 2048	Physics with Calculus 1	3
PHY 2053	Physics (without Calculus) 1	3

---AND---
Group B – Select 3 Credits from the following*

AST 1002	Descriptive Astronomy	3
BOT 1010	Botany	3
BSC 1005	General Education Biology	3
BSC 1084	Functional Human Anatomy	3
BSC 2010	Principles of Biology	3
BSC 2020	Human Biology: Fundamentals of Anatomy/Physiology	3
BSC 2085	Anatomy and Physiology I	3
CHM1020	General Education Chemistry	3
CHM1025	Introductory Chemistry	3
CHM1033	Chemistry for Health Sciences	3
CHM1045	General Chemistry and Qualitative Analysis	3
CHM1046	General Chemistry and Qualitative Analysis	3
CHM2200	Survey of Organic Chemistry	3
CHM2210	Organic Chemistry 1	3
CHM2211	Organic Chemistry 2	3
ESC 1000	General Education Earth Science	3
EVR 1001	Introduction to Environmental Science	3
GLY 1010	Physical Geology	3
GLY1100	Historical Geology	3
HUN 1201	Essentials of Human Nutrition	3
MET1010	Introduction to Weather	3

OCB 1010	Introduction to Marine Biology	3	
OCE 1001	Introduction to Oceanography	3	
PHY1004	Physics with Applications 1	3	
PHY1020	General Education Physics	3	
PHY1025	Basic Physics	3	
PHY2048	Physics with Calculus 1	4	
PHY2049	Physics with Calculus 2	4	
PHY2053	Physics (without Calculus) 1	3	
PHY2054	Physics (without Calculus) 2	3	
PSC 1121	General Education Physical Science	3	
PSC 1515	Energy in the Natural Environment	3	

*** ANY COURSE WITH THE FOLLOWING PREFIX EXCLUDING LABS.**

MATHEMATICS 6 Credits*
Select at least 1 course from the 4 State Core options. Lab Credits are not allowed in this area.

State Core 3 Credits

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

MDC Core 3 Credits

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 1106	Integrated College and Precalculus Algebra	5	Prerequisite: MAT1033
MAC 1114	Trigonometry	3	Prerequisite: MAC 1105 or MAC 1106
MAC 1140	Pre-Calculus Algebra	3	Prerequisite: MAC 1105
MAC 1147	Pre-Calculus Algebra and Trigonometry	5	Prerequisite: MAC1105
MAC 2233	Business Calculus	3	Prerequisite: MAC 1105 or MAC1106
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MAC 2312	Calculus and Analytical Geometry 2	4	Prerequisite: MAC 2311
MAC 2313	Calculus and Analytic Geometry 3	4	Prerequisite: MAC 2312
MAD 1100	Discrete Mathematics for Computer Science	3	Prerequisite: MAC1105
MAD 2104	Discrete Mathematics	3	Prerequisite: MAC 1106 or MAC1140
MAP 2302	Introduction to Differential Equations	3	Prerequisite: MAC 2312
MAS 2103	Elementary Linear Algebra	3	Prerequisite: MAC 2311
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
MGF 1131	Mathematics in Context	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
QMB 2100	Basic Business Statistics (C)	3	Prerequisite: Acceptable score on the Algebra placement test or equivalent

STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131 (C)

General Education Elective – 3 Credits Required
Electives may include any appropriate transferrable (Credit Type 1 or 2) courses (Check with Advisor)

Computer Competency Requirement
Computer Competency Test (CCT)
Or

CGS 1060	Introduction to Microcomputer Usage	*Credits count towards the Program Elective

LOWER DIVISION/COMMON PREREQUISITE REQUIREMENTS – 24 Credits Required
GROUP A – Common Prerequisite Course Requirements 17 Credits

ACG 2021	Financial Accounting	3	Corequisite: ACG 2021L
ACG 2021L	Financial Accounting Lab	1	Corequisite: ACG 2021
ACG 2071	Managerial Accounting	3	Prerequisite: ACG 2001, 2011 or 2021; Corequisite: ACG 2071L
ACG 2071L	Managerial Accounting Lab	1	Prerequisite: ACG 2021, 2021L; Corequisite: ACG 2071
ECO 2013	Principles of Economics (Macro)	3	
ECO 2023	Principles of Economics (Micro)	3	
TRA 1154	Intro to Supply Chain Management	3	
TRA 2010	Intro to Logistics and Transportation	3	

---AND---
GROUP B – 7 Credits

ACG*	CGS*	HFT*	MAN*	STA*
BAN*	FIN*	ISM*	MAR*	TAX*
BUL*	GEB*	MAC*	QMB*	TRA*

UPPER DIVISION CORE REQUIREMENTS – 33 Credits Required

BUL 4461	Law of International Trade	3	Prerequisite: GEB 3358
FIN 3403	Financial Management	3	Prerequisites: ACG 2071/L, QMB 2100 or STA 2023
GEB 3358	International Negotiations and Transactions	3	Prerequisite: TRA 1154
MAN 3506	Operations Management	3	Prerequisite: QMB 2100 or STA 2023
MAN 3554	Safety and Risk Management	1	
MAN 3562	Purchasing, Inventory and Warehouse Management	3	
MAN 3583	Project Management	3	
MAN 4520	Quality Management	3	
MAN 4523	Production Information Systems	3	
MAN 4597	Global Supply Chain Management	3	Prerequisite: MAN 3506
MAN 4940	Field Study and Research	2	Prerequisites: MAN 3583, TRA 1154
MAR 4203	Supply Chain Marketing	3	Prerequisites: MAN 3506, TRA 1154

CONCENTRATION CORE – 27 CREDITS REQUIRED
GROUP A – CONCENTRATION CORE – 9 CREDITS REQUIRED

MAN 3731	Assessing and Managing Project Risk	3
MAN 3888	Project Leadership	3
MAN 4887	Project Planning and Control Systems for SCM	3

---AND---
GROUP B – UPPER DIVISION ELECTIVES – 9 CREDITS REQUIRED

GEB 4363	Import/Export Management	3	Prerequisite: TRA 2010
MAN 3504	Production Operations and Logistics Management	3	Prerequisite: TRA 1154
MAN 3786	Sustainable Enterprise Planning	3	
MAN 4593	Supply Chain Management Theory & Methodology	2	Prerequisites: MAN 3583, 4523
TRA 3034	Transportation & Traffic Management	3	Prerequisite: TRA 1154
TRA 3132	Purchasing and Inventory Management	3	Prerequisite: TRA 1154
TRA 4234	Warehouse Management	3	Prerequisites: MAN 3506, QMB 2100 or STA 2023

---AND---

GROUP C - ELECTIVES – 9 CREDITS REQUIRED

ACG*	CGS*	HFT*	MAN*	STA*
BAN*	FIN*	ISM*	MAR*	TAX*
BUL*	GEB*	MAC*	QMB*	TRA*

Additional Information:

Students should check their individualized Degree Audit Report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami Dade College. This outline includes current graduation requirements.

Students must complete all coursework with a "C" or better to complete the degree.

Miami Dade College

Supply Chain Management – Supply Chain Analytics Concentration
Bachelor of Applied Science | Code: P9303 | 120 Credits
CIP (1105202032**)**
Effective Term: Fall 2025 (2257)

Supply chain management is an interdisciplinary field that emphasizes cross-functional integration of diverse business functions, facilities, and activities and seeks to manage those activities to enhance a company's competitive advantage. The Bachelor of Applied Science in Supply Chain Management (BAS-SCM) is designed to provide knowledge of the supply chain while exploring the risks, operations, logistics, economics, regulatory issues, change management, forecasting, resource allocation, production planning, inventory management, customer delivery, after-sales support and service and other functions basic to business.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION – 36 CREDITS REQUIRED			
Communications – 6 Credits Required			
ENC 1101	English Composition 1	3	Prerequisite: Approved Placement Scores
ENC 1102	English Composition 2	3	Prerequisite: ENC 1101
Oral Communications – 3 Credits Required			
ENC 2300	Advanced Composition & Communication	3	Pre-Req: ENC 1101, 1102
SPC 1017	Introduction to Communications	3	
SPC 2608	Introduction to Public Speaking	3	
Humanities – 6 Credits Required			
Group A – Select 3 Credits from the following (State Core):			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theater Appreciation	3	
---AND---			
Group B – Select 3 Credits from the following (MDC Core):			
ARC 2701	History of Architecture 1	3	
ARC 2702	History of Architecture 2	3	
ARH 1000	Art Appreciation	3	
ARH 2050	Art History 1	3	Pre-Req: ARH 2050
ARH 2051	Art History 2	3	
ARH 2740	Cinema Appreciation	3	
DAN 2100	Dance Appreciation	3	
DAN 2130	Dance History 1	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	
LIT 2120	A Survey of World Literature	3	Pre-Req: ENC 1101 or ENC 1102 or Equivalent
MUH 2111	Survey of Music History 1	3	
MUH 2112	Survey of Music History 2	3	Pre-Req: MUH 2112
MUL 1010	Music Appreciation	3	
MUL 2380	Jazz and Popular Music in America	3	
PHI 2010	Introduction to Philosophy	3	
PHI 2600	Introduction to Ethics	3	
THE 2000	Theater Appreciation	3	
Behavioral and Social Science – 6 Credits Required			
Must take 3.0 credits from the following group.			
AMH 2010	History of the US to 1877	3	

AMH 2020	History of the US Since 1877	3
ANT 2000	Introduction to Anthropology	3
ECO 2013	Principles of Economics (Macro)	3
POS 2041	American Federal Government	3
PSY 2012	Introduction to Psychology	3

---AND---

Must take 3.0 credits from the following group.

AMH 2010	History of the US to 1877	3
AMH 2020	History of the US Since 1877	3
ANT 2000	Introduction to Anthropology	3
ANT 2410	Introduction to Cultural Anthropology	3
CLP 1006	Psychology of Personal Effectiveness	3
DEP 2000	Human Growth and Development	3
ECO 2013	Principles of Economics (Macro)	3
ISS 1120	The Social Environment	3
ISS 1161	The Individual in Society	3
POS 2041	American Federal Government	3
PSY 2012	Introduction to Psychology	3
SYG 2000	Introduction to Sociology	3
WOH 2012	History of World Civilization to 1789	3
WOH 2022	History of World Civilization From 1789	3

Natural Science – 6 Credits Required

Group A – Select 3 Credits from the following*

AST 1002	Descriptive Astronomy	3
BSC 1005	General Education Biology	3
BSC 2010	Principles of Biology	3
BSC 2085	Human Anatomy and Physiology I	3
CHM 1020	General Education Chemistry	3
CHM 1045	General Chemistry & Qualitative Analysis	3
ESC 1000	General Education Earth Science	3
EVR 1001	Introduction to Environmental Science	3
GLY 1010	Physical Geology	3
OCE 1001	Introduction to Oceanography	3
PHY 1020	General Education Physics	3
PHY 2048	Physics with Calculus 1	3
PHY 2053	Physics (without Calculus) 1	3

---AND---

Group B – Select 3 Credits from the following*

AST 1002	Descriptive Astronomy	3
BOT 1010	Botany	3
BSC 1005	General Education Biology	3
BSC 1084	Functional Human Anatomy	3
BSC 2010	Principles of Biology	3
BSC 2020	Human Biology: Fundamentals of Anatomy/Physiology	3
BSC 2085	Anatomy and Physiology I	3
CHM1020	General Education Chemistry	3
CHM1025	Introductory Chemistry	3
CHM1033	Chemistry for Health Sciences	3
CHM1045	General Chemistry and Qualitative Analysis	3
CHM1046	General Chemistry and Qualitative Analysis	3
CHM2200	Survey of Organic Chemistry	3
CHM2210	Organic Chemistry 1	3
CHM2211	Organic Chemistry 2	3
ESC 1000	General Education Earth Science	3
EVR 1001	Introduction to Environmental Science	3
GLY 1010	Physical Geology	3
GLY1100	Historical Geology	3
HUN 1201	Essentials of Human Nutrition	3
MET1010	Introduction to Weather	3
OCB 1010	Introduction to Marine Biology	3
OCE 1001	Introduction to Oceanography	3
PHY1004	Physics with Applications 1	3

PHY1020	General Education Physics	3	
PHY1025	Basic Physics	3	
PHY2048	Physics with Calculus 1	4	
PHY2049	Physics with Calculus 2	4	
PHY2053	Physics (without Calculus) 1	3	
PHY2054	Physics (without Calculus) 2	3	
PSC 1121	General Education Physical Science	3	
PSC 1515	Energy in the Natural Environment	3	

*** ANY COURSE WITH THE FOLLOWING PREFIX EXCLUDING LABS.**

MATHEMATICS 6 Credits*
Select at least 1 course from the 4 State Core options. Lab Credits are not allowed in this area.

State Core 3 Credits

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

MDC Core 3 Credits

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 1106	Integrated College and Precalculus Algebra	5	Prerequisite: MAT1033
MAC 1114	Trigonometry	3	Prerequisite: MAC 1105 or MAC 1106
MAC 1140	Pre-Calculus Algebra	3	Prerequisite: MAC 1105
MAC 1147	Pre-Calculus Algebra and Trigonometry	5	Prerequisite: MAC1105
MAC 2233	Business Calculus	3	Prerequisite: MAC 1105 or MAC1106
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MAC 2312	Calculus and Analytical Geometry 2	4	Prerequisite: MAC 2311
MAC 2313	Calculus and Analytic Geometry 3	4	Prerequisite: MAC 2312
MAD 1100	Discrete Mathematics for Computer Science	3	Prerequisite: MAC1105
MAD 2104	Discrete Mathematics	3	Prerequisite: MAC 1106 or MAC1140
MAP 2302	Introduction to Differential Equations	3	Prerequisite: MAC 2312
MAS 2103	Elementary Linear Algebra	3	Prerequisite: MAC 2311
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
MGF 1131	Mathematics in Context	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
QMB 2100	Basic Business Statistics (C)	3	Prerequisite: Acceptable score on the Algebra placement test or equivalent
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

General Education Elective – 3 Credits Required
Electives may include any appropriate transferrable (Credit Type 1 or 2) courses (Check with Advisor)

Computer Competency Requirement
Computer Competency Test (CCT)
Or
CGS 1060 Introduction to Microcomputer Usage
***CREDITS COUNT TOWARDS THE PROGRAM ELECTIVE**

LOWER DIVISION/COMMON PREREQUISITE REQUIREMENTS – 24 Credits Required
GROUP A – Common Prerequisite Course Requirements 17 Credits

ACG 2021	Financial Accounting	3	Corequisite: ACG 2021L
ACG 2021L	Financial Accounting Lab	1	Corequisite: ACG 2021
ACG 2071	Managerial Accounting	3	Prerequisites: ACG 2001, 2011 or 2021; Corequisite: ACG 2071L
ACG 2071L	Managerial Accounting Lab	1	Prerequisite: ACG 2021, 2021L; Corequisite: ACG 2071
ECO 2013	Principles of Economics (Macro)	3	
ECO 2023	Principles of Economics (Micro)	3	
TRA 1154	Intro to Supply Chain Management	3	
TRA 2010	Intro to Logistics and Transportation	3	

---AND---
GROUP B – 7 Credits

ACG*	CGS*	HFT*	MAN*	STA*
BAN*	FIN*	ISM*	MAR*	TAX*
BUL*	GEB*	MAC*	QMB*	TRA*

UPPER DIVISION CORE REQUIREMENTS – 33 Credits Required

BUL 4461	Law of International Trade	3	Prerequisite: GEB 3358
FIN 3403	Financial Management	3	Prerequisite: ACG 2071/L, QMB 2100 or STA 2023
GEB 3358	International Negotiations and Transactions	3	Prerequisite: TRA 1154
MAN 3506	Operations Management	3	Prerequisite: QMB 2100 or STA 2023
MAN 355	Safety and Risk Management	1	
MAN 3562	Purchasing, Inventory and Warehouse Management	3	
MAN 3583	Project Management	3	
MAN 4520	Quality Management	3	
MAN 4523	Production Information Systems	3	
MAN 4597	Global Supply Chain Management	3	Prerequisite: MAN 3506
MAN 4940	Field Study and Research	2	Prerequisites: MAN 3583, TRA 1154
MAR 4203	Supply Chain Marketing	3	Prerequisites: MAN 3506, TRA 1154

CONCENTRATION CORE – 27 CREDITS REQUIRED
GROUP A – CONCENTRATION CORE – 9 CREDITS REQUIRED

MAN 4552	Supply Chain Analytics and Decision Making	3	
MAN 4719	Challenges in the Digital Supply Chain	3	Prerequisite: MAN3506, (QMB2100 OR STA2023)
MAN 4732	Business Intelligence for Supply Chain	3	

---AND---
GROUP B – UPPER DIVISION ELECTIVES – 9 CREDITS REQUIRED

GEB 4363	Import/Export Management	3	Prerequisite: TRA 2010
MAN 3504	Production Operations and Logistics Management	3	Prerequisite: TRA 1154
MAN 3786	Sustainable Enterprise Planning	3	
MAN 4593	Supply Chain Management Theory & Methodology	2	Prerequisite: MAN 3583, MAN 4523
TRA 3034	Transportation & Traffic Management	3	Prerequisite: TRA 1154
TRA 3132	Purchasing and Inventory Management	3	Prerequisite: TRA 1154
TRA 4234	Warehouse Management	3	Prerequisites: MAN 3506, QMB 2100 or STA 2023

---AND---
GROUP C - ELECTIVES – 9 CREDITS REQUIRED

ACG*	CGS*	HFT*	MAN*	STA*
BAN*	FIN*	ISM*	MAR*	TAX*
BUL*	GEB*	MAC*	QMB*	TRA*

Additional Information:
Students should check their individualized Degree Audit Report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami Dade College. This outline includes current graduation requirements.

Students must complete all coursework with a "C" or better to complete the degree.

Bachelor of Science (B.S.)

Applied Artificial Intelligence

Bachelor of Science | Code: S9520 | 120 credits

The Bachelor of Science (BS) degree in Applied Artificial Intelligence (AI) offers a practical approach to using complex fields such as computer vision, natural language processing, and machine learning to transform large datasets into actionable outputs that can be used to increase productivity and operational efficiencies. The program is well-rounded and tailored to meet employers' needs, offering in-depth knowledge of artificial intelligence (AI) tools and their applications, as well as AI process automation and optimization. In addition, students learn to use ethical standards and socially responsible practices in the design and implementation of AI systems.

Biological Sciences - Biopharmaceutical Sciences Concentration

Bachelor of Science | Code: S5201 | 120 credits

The Bachelor of Science (B.S.) in Biological Sciences is designed to provide students with a broad foundation in biology. Miami Dade College students will explore structure, function, genetics, and evolution of cells and organisms as well as take a number of science education courses (in order to become eligible to teach science in the State of Florida), while being provided the hands-on skills necessary to obtain jobs in life science industries or science education. Students take the core courses in biology, chemistry, physics and mathematics, and must meet the same General Education Requirements of all students seeking an AA degree. Students may choose from a variety of electives in science and general education to complete their degree requirements.

Biological Sciences - Biotechnology Concentration

Bachelor of Science | Code: S5200 | 120 credits

The Bachelor of Science (B.S.) in Biological Sciences is designed to provide students with a broad foundation in biology. Miami Dade College students will explore structure, function, genetics, and evolution of cells and organisms as well as take a number of science education courses (in order to become eligible to teach science in the state of Florida), while being provided the hands-on skills necessary to obtain jobs in life science industries or science education. Students take the core courses in biology, chemistry, physics and mathematics, and must meet the same General Education Requirements of all students seeking an AA degree. Students may choose from a variety of electives in science and general education to complete their degree requirements.

Biological Sciences - Science Education

Bachelor of Science | Code: S5202 | 120 credits

The Bachelor of Science (B.S.) in Biological Sciences is designed to provide students with a broad foundation in biology. Miami Dade College students will explore structure, function, genetics, and evolution of cells and organisms, while being provided the hands-on skills necessary to obtain jobs in the Biological/Life Science fields. Students take the core courses in biology, chemistry, physics and mathematics, and must meet the same General Education Requirements of all students seeking an AA degree. Students may choose from a variety of electives in science and general education to complete their degree requirements.

Cybersecurity

Bachelor of Science | Code: S9515 | 120 credits

The Bachelor of Science (BS) in Cybersecurity degree is designed to help meet the local need for cyber security professionals. Students in this program gain detailed understanding and hands-on skills regarding the tools and protocols needed to use and manage cybersecurity infrastructure, risks, and vulnerabilities in real-world situations. The program curriculum includes courses in network defense, penetration testing, computer and network forensics, risk management and ethics, among others. These courses prepare students for multiple industry certifications such as Certified Ethical Hacker, Computer Hacking Forensics Investigator and Certified Information Security Manager.

Data Analytics

Bachelor of Science | Code: S9510 | 120 credits

The Bachelor of Science (BS) in Data Analytics program is designed to train and supply a workforce of skilled graduates in data manipulation and analysis across a spectrum of industries. Through the cross-disciplinary curriculum, students will learn to clean, organize, analyze, and interpret unstructured data, to derive knowledge and communicate discoveries using sophisticated visualization techniques. Students will demonstrate competence with fundamental algorithmic approaches to analyzing large data sets.

Early Childhood Education

Bachelor of Science | Code: S9270 | 120 credits

Upon completion of the Bachelor of Science Degree with a major in Early Childhood Education program, the student will be eligible to obtain a Florida Educator Certification in Pre-school (Birth to Age 4) and Pre-Kindergarten/ Primary (Age 3 to Grade 3) with endorsements in English for Speakers of Other Languages (ESOL), Reading, and Pre-Kindergarten Disabilities.

Electrical and Computer Engineering Technology

Bachelor of Science | Code: S9100 | 134 credits

Electrical and Computer Engineering Technology (ECET) is part of almost everything society depends on. The ECET program at Miami Dade College is designed to provide students with a well-rounded hands-on education in electrical and computer systems. The program emphasizes the application of electrical/electronic and computer hardware and software principles and devices. Students study and learn valuable skills from various areas such as: computer hardware and interfacing, computer-based instrumentation and process control, digital communication and networking, and microcontroller systems and applications. Graduates from the ECET program have technical skills that allows them to work in a broad range of industries including transportation, green energy, networks and communi-

cations, aerospace, defense, and biomedical.

Exceptional Student Education (K-12)
Bachelor of Science | Code: S9260 | 120 credits

The four-year baccalaureate degrees in Education are designed to prepare students to become teachers and pass state professional certification exams. An internship in a school setting is required to provide practical experience. The completer will earn a professional teaching certificate in Exceptional Student Education with endorsements in ESOL and Reading.

Exceptional Student Education (K-12)
Bachelor of Science | Code: S4301 | 120 credits

The four-year baccalaureate degrees in Education are designed to prepare students to become teachers and pass state professional certification exams. An internship in a school setting is required to provide practical experience. The completer will earn a professional teaching certificate in Exceptional Student Education with endorsements in ESOL and Reading.

Information Systems Technology - Networking Concentration
Bachelor of Science | Code: S9500 | 120 credits

The Bachelor of Science (BS) in Information Systems Technology (IST) degree program prepares students with essential skills and knowledge to effectively support the design, planning and management of information infrastructures and information resources within diverse organizational settings The Networking Concentration focuses on how to plan, design, implement and maintain network infrastructures to keep organizations running smoothly. Students learn how to select technologies that best suit the client's needs. Students also acquire the technical skills needed to install, maintain, and extend multi-user computer systems and how to develop administrative policies and procedures.

Information Systems Technology - Software Engineering Concentration
Bachelor of Science | Code: S9501 | 120 credits

The Bachelor of Science (BS) in Information Systems Technology (IST) degree program prepares students with essential skills and knowledge to effectively support the design, planning and management of information infrastructures and information resources within diverse organizational settings. The Software Engineering concentration focuses on designing and creating software. Students learn how to specify software requirements from clients and how to design, implement and validate software solutions for real-world problems.

Nursing (RN to BSN)
Bachelor of Science in Nursing | Code: N9100 | 125 credits

The Bachelor of Science in Nursing (BSN) is designed for licensed RNs with an A.S. degree in Nursing from regionally accredited programs who wish to attain the next level of education in order to provide professional nursing care in all clinical practice settings around the world, or to be eligible for advanced nursing leadership, management, staff education and practice positions, in a multicultural society.

Secondary Mathematics Education
Bachelor of Science | Code: S9250 | 120 credits

The four-year baccalaureate degrees in Education are designed to prepare students to become teachers and pass state professional certification exams. An internship in a school setting is required to provide practical experience. The completer will earn a professional teaching certificate in Mathematics Education (gr.6-12).

Secondary Science Education - Biology
Bachelor of Science | Code: S9210 | 120 credits

The four-year baccalaureate degrees in Education are designed to prepare students to become teachers and pass state professional certification exams. An internship in a school setting is required to provide practical experience. The completer will earn a professional teaching certificate in Biology Education (gr.6-12).

Bachelor of Science (BS) Program Sheets

Miami Dade College

Applied Artificial Intelligence
Bachelor of Science | Code: S9520 | 120 credits
CIP (1101101021**)**
Effective Term: Fall 2025 (2257)

The Bachelor of Science (BS) degree in Applied Artificial Intelligence (AI) offers a practical approach to using complex fields such as computer vision, natural language processing, and machine learning to transform large datasets into actionable outputs that can be used to increase productivity and operational efficiencies. The program is well-rounded and tailored to meet employers' needs, offering in-depth knowledge of artificial intelligence (AI) tools and their applications, as well as AI process automation and optimization. In addition, students learn to use ethical standards and socially responsible practices in the design and implementation of AI systems.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (36.00 Credits)			
Courses require a grade of "C" or higher to satisfy the general education requirement.			
COMMUNICATIONS (6.00 credits)			
ENC 1101	English Composition 1 (W)	3	Appropriate college placement
ENC 1102	English Composition 2 (W)	3	Prerequisite: ENC 1101
ORAL COMMUNICATIONS (3.00 credits)			
Select one course from the following offerings.			
ENC 2300	Advanced Composition & Communication (W)	3	Prerequisites: ENC 1101, ENC 1102
SPC 1017	Introduction to Communications (W)	3	
SPC 2608	Introduction to Public Speaking (W)	3	
HUMANITIES (6.00 creditsRemove Select at least one course from the six State Core options:			
State Core (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature (W)	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy (W)	3	
THE 2000	Theatre Appreciation (W)	3	
MDC Core (3.00 credits)			
ARC 2701	History of Architecture 1	3	
ARC 2702	History of Architecture 2 (W)	3	
ARH 1000	Art Appreciation	3	
ARH 2050	Art History 1	3	
ARH 2051	Art History 2 (W)	3	Prerequisite: ARH 2050
ARH 2740	Cinema Appreciation (W)	3	
DAN 2100	Dance Appreciation	3	
DAN 2130	Dance History 1 (W)	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature (W)	3	Prerequisite: ENC 1101
LIT 2120	A Survey of World Literature (W)	3	Prerequisites: ENC 1101, ENC 1102
MUH 2111	Survey of Music History 1	3	
MUH 2112	Survey of Music History 2 (W)	3	Prerequisite: MUH 2111
MUL 1010	Music Appreciation	3	
MUL 2380	Jazz & Popular Music in America (W)	3	
PHI 2010	Introduction to Philosophy (W)	3	
PHI 2600	Introduction to Ethics (W)	3	
THE 2000	Theatre Appreciation (W)	3	

SOCIAL SCIENCES (6.00 credits)
Select at least one course from the six State Core options. To meet the Civic Literacy Competency Requirement for graduation one course selection should be AMH 2010 or AMH 2020 or POS 2041.

State Core (3.00 credits)

AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US Since 1877	3	
ANT 2000	Introduction to Anthropology	3	
ECO 2013	Principles of Economics (Macro) (W)	3	
POS 2041	American Federal Government	3	
PSY 2012	Introduction to Psychology	3	

MDC Core (3.00 credits)

AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US Since 1877	3	
ANT 2000	Introduction to Anthropology	3	
DEP2000	Human Growth and Development	3	
ECO 2013	Principles of Economics (Macro) (W)	3	
POS 2041	American Federal Government	3	
PSY 2012	Introduction to Psychology	3	
SYG 2000	Introduction to Sociology	3	
WOH 2012	History of World Civilization to 1789	3	
WOH 2022	History of World Civilization from 1789	3	

NATURAL SCIENCES (6.00 credits)
Select at least one course from the thirteen State Core options. Laboratory courses do not fulfill this area's requirements.

State Core (3.00 credits)

AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
BSC 2010	Principles of Biology	3	Pre/Corequisites: CHM 1045, BSC 2010L
BSC 2085	Human Anatomy and Physiology 1	3	Corequisite: BSC 2085L
CHM 1020	General Education Chemistry	3	
CHM 1045	General Chemistry and Qualitative Analysis	3	Prerequisites: CHM 1025 or a passing score on the CART exam, and MAC 1105 Corequisite: CHM 1045L
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
PHY 2048	Physics with Calculus 1	4	Prerequisites: HS physics, or PHY 1025, PHY 2053 or departmental approval and MAC 2311; Corequisite: PHY 2048L
PHY 2053	Physics (without Calculus) 1 Corequisite: PHY 2053L	3	Prerequisites: MAC 1114, MAC 1147;

MDC Core (3.00 credits)

AST 1002	Descriptive Astronomy	3	
BOT 1010	Botany	3	Corequisite: BOT 1010L
BSC 1005	General Education Biology	3	
BSC 1084	Functional Human Anatomy	3	
BSC 2010	Principles of Biology	3	Pre/Corequisites: CHM 1045, BSC 2010L
BSC 2020	Human Biology: Fund. of Anatomy & Physiology	3	
BSC 2085	Human Anatomy and Physiology 1	3	Corequisites: BSC 2085L
CHM1020	General Education Chemistry	3	
CHM1025	Introductory Chemistry	3	Prerequisite: MAT 1033

CHM1033	Chemistry for Health Sciences	3	Prerequisite: MAT 1033; Corequisite: CHM1033L
CHM1045	General Chemistry and Qualitative Analysis	3	Prerequisite: CHM1025 or a passing score on the CART exam, MAC 1105. Co-requisite: CHM 1045L
CHM1046	General Chemistry and Qualitative Analysis	3	Prerequisite: CHM1045 Corequisite: CHM1046L
CHM2200	Survey of Organic Chemistry	3	Prerequisite: CHM 1046 and CHM 1046L; Corequisite: CHM 2200L
CHM2210	Organic Chemistry 1	3	Prerequisite: CHM1046 and CHM 1046L; Corequisite: CHM2210L
CHM2211	Organic Chemistry 2	3	Prerequisite: CHM 2210 and CHM 2210L; Corequisite: CHM 2211L
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Sciences	3	
GLY 1010	Physical Geology	3	
GLY1100	Historical Geology	3	
HUN 1201	Essentials of Human Nutrition	3	
MET1010	Introduction to Weather	3	Pre/corequisite: PSC1515
OCB 1010	Introduction to Marine Biology	3	
OCE 1001	Introduction to Oceanography	3	
PCB 2033	Introduction to Ecology	3	Prerequisite: PSC 1515 or BSC 2011
PHY1004	Physics with Applications 1	3	Prerequisite: MAT 1033 with a grade of "C" or better; Corequisite: PHY1004L with a grade of "C" or better
PHY1020	General Education Physics	3	
PHY1025	Basic Physics	3	Prerequisite: MAC1105
PHY2048	Physics with Calculus 1	4	Prerequisites: High school physics or PHY 1025, PHY 2053 or departmental approval and MAC 2311; Corequisite: PHY 2048L
PHY2049	Physics with Calculus 2	4	Prerequisite: PHY 2048 and PHY 2048L; Corequisites: PHY 2049L and MAC 2312
PHY2053	Physics (without Calculus) 1	3	Prerequisite: MAC 1114 or MAC 1147; Corequisite PHY 2053L
PHY2054	Physics (without Calculus) 2	3	Prerequisite: PHY 2053; corequisite: PHY 2054L
PSC 1121	General Education Physical Science	3	Prerequisite: MAT 1033
PSC 1515	Energy in the Natural Environment		

MATHEMATICS 6 Credits*
Select at least 1 course from the 4 State Core options. Lab Credits are not allowed in this area.

State Core 3 Credits

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

MDC Core 3 Credits

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 1106	Integrated College and Precalculus Algebra	5	Prerequisite: MAT1033
MAC 1114	Trigonometry	3	Prerequisite: MAC 1105 or MAC 1106
MAC 1140	Pre-Calculus Algebra	3	Prerequisite: MAC 1105

MAC 1147	Pre-Calculus Algebra and Trigonometry	5	Prerequisite: MAC1105
MAC 2233	Business Calculus	3	Prerequisite: MAC 1105 or MAC1106
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MAC 2312	Calculus and Analytical Geometry 2	4	Prerequisite: MAC 2311
MAC 2313	Calculus and Analytic Geometry 3	4	Prerequisite: MAC 2312
MAD 1100	Discrete Mathematics for Computer Science	3	Prerequisite: MAC1105
MAD 2104	Discrete Mathematics	3	Prerequisite: MAC 1106 or MAC1140
MAP 2302	Introduction to Differential Equations	3	Prerequisite: MAC 2312
MAS 2103	Elementary Linear Algebra	3	Prerequisite: MAC 2311
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
MGF 1131	Mathematics in Context	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
QMB 2100	Basic Business Statistics (C)	3	Prerequisite: Acceptable score on the Algebra placement test or equivalent
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

GENERAL EDUCATION ELECTIVE (3.00 Credits)
See Academic Advisor for approved selection.

COMPUTER COMPETENCY REQUIREMENT
By the 16th earned college-level credit, students must attempt the computer competency requirement OR by the 31st earned college-level credit, students must satisfy the requirement (CGS1060C, an equivalent college credit course or the College's approved computer competency test). For more information, see Computer Competency.

FOREIGN LANGUAGE COMPETENCY REQUIREMENT
Students must fulfill this requirement via three options:
Option A: Successful completion of two (2) credits (i.e., the equivalent of two years) in one (1) foreign language at the secondary (high school) level.
---**OR---**
Option B: Successful completion of the following courses at the elementary 2 level: ASL 1150C, CHI 1121, FRE 1121, GER 1121, ITA 1121, JPN 1121, POR 1121, RUS 1121, SPN 1121. These credits count towards the Lower Division Requirements area.
---**OR---**
Option C: Students may demonstrate completion of the elementary 2 level through standardized examination that document the required foreign language competency.

LOWER DIVISION TECHNOLOGY (31.00 Credits)

Group A:	**13.00 credits**		
CAI 1001C	Artificial Intelligence (AI) Thinking	3	
CAI 2100C	Machine Learning Foundations and COP 1047C	3	Prerequisites: CAI 1001C
CAI 2300C	Introduction to Natural Language Processing	3	Prerequisite: CAI 2100C
COP 1047C	Introduction to Python Programming	4	
Group B:	**10.00 credits**		
CAI 2840C	Introduction to Computer Vision	3	Prerequisite: CAI 2100C
COP 2800	Java Programming COP 1334, or COP 2270	4	Prerequisites: COP 1047C,
PHI 2680	Artificial Intelligence and Ethics	3	
Group C:	**8.00 credits**		

Any transferrable type-1 or type-2 courses. Please see academic advisor.

PROGRAM CORE: 31.00 credits

CAI 3303C	Natural Language Processing	3	Prerequisite: CAI 2300C
CAI 3821C	Computational Methods and Applications for Intelligence 1	3	Prerequisites: CAI 2100C, COP 1047C, MAC 1105, and Artificial STA 2023
CAI 3822C	Computational Methods and Applications for Artificial Intelligence 2	3	Prerequisite: CAI 3821C
CAI 4420C	Applied Decision and Optimization Theory	3	Prerequisite: CAI 4505C
CAI 4505C	Artificial Intelligence	3	Prerequisites: CAI 3822C and COP 3530
CAI 4510C	Machine Intelligence	3	Prerequisites: CAI 3822C and COP 3530
CAI 4525C	Artificial Intelligence Systems Automation CAI 4510C	3	Prerequisites: CAI 4505C and
CAI 4830C	Simulation for Applied Artificial Intelligence	3	Pre/corequisite: CAI 4505C
CAI 4950C	Artificial Intelligence Capstone	3	Prerequisites: CAI 4510C, CAI 4420C and CAI 4830C; Pre/ Corequisite: CAI 4525C
COP 3530	Data Structures	4	Prerequisite: COP 2800

---AND---

UPPER-DIVISION STATISTICS: 4.00 credits

Select one course from the following offerings.

CAP 3330	Programming R for Statistics	4	Prerequisite: STA 2023
STA 3164	Statistical Methods II	4	Prerequisite: STA 2023

PROGRAM ELECTIVES (18.00 Credits)

Electives are restricted to courses listed below:

COP*
MAC*
MAD*
MAP*

CAI 2820C	Artificial Intelligence Applications Solutions	3	Prerequisites: CAI 2300C and CAI 2840C
CAP 1788	Introduction to Data Analytics	4	
CAP 2761C	Intermediate Analytics	4	Prerequisites: CAP 1788 and CGS 1540C
CAP 3321C	Data Wrangling	4	Prerequisites: CAP 1788 and CAP 2761C
CAP 4744	Data Visualization	4	Prerequisites: CAP 1788 and CAP 2761C
CGS 1540C	Database Concepts and Design	4	
CIS 3368	Data Security & Governance	4	
CTS 1120	Cybersecurity Fundamentals	4	
CTS 1145	Cloud Essentials	4	
ETS 1603C	Introduction to Robotics	4	
GEB 1432	Applied Artificial Intelligence (AI) in Business	3	
HSC 2060	Artificial Intelligence Applications in Healthcare	3	
MAD 1100	Discrete Mathematics for Computer Science	3	Prerequisite: MAC 1105

***Includes any and all courses within associated prefix**
W = Writing Intensive Course
C = Computational Course

IMPORTANT INFORMATION

Civic Literacy Competency:
To earn a baccalaureate, students first entering the Florida College System or State University System in the 2021-2022 school year and thereafter must demonstrate competency in civic literacy. This requirement may be satisfied by passing AMH 2010, AMH 2020, or POS 2041 (listed under the Social Sciences core) AND passing an approved assessment. Civic literacy requirements vary for students who entered the College or University system prior to academic year 2021-22. For more information, go to Civic Literacy Competency.

Computer Competency: All MDC degree-seeking students with 16 or more credits must demonstrate computer competency prior to graduation. Students demonstrate this competency by passing the MDC computer competency test or by enrolling in and successfully completing an equivalent course. For more information, see Computer Competency.

Foreign Language: Students admitted to the baccalaureate degree program without meeting the foreign language admissions requirement of at least 2 courses (8-10 credit hours) of sequential foreign language at the secondary level or the equivalent of such instruction at the postsecondary level must earn such credits prior to graduation. For more information, refer to Foreign Language Competency.

Required Credit Hours and GPA: The baccalaureate requires students to earn a minimum of 120 unduplicated credit hours with a minimum cumulative grade point average of 2.0. All general education and all upper division requirements must be passed with the grade of "C" or better.

Pursuing or Have Earned an Associate's Degree: Students entering with an AS or AAS degree may have more than 24 elective credits and may need additional General Education credits to meet the 36 General Education credits required for the baccalaureate degree. Students entering with an AA degree may need additional electives to provide appropriate background for the baccalaureate program.

Graduation Requirements: Additional requirements may apply, which include, but are not limited to enrollment in courses that involve substantial writing and mathematical skill development (rule 6A-10.030, often referenced as Gordon Rule) and residency (number of credits that must be earned at MDC). Students should review their individualized Degree Audit Report to determine the specific graduation policies in effect for their program of study for their effective term. Students are highly encouraged to meet with their academic advisor on a regular basis and review the College Catalog to learn about all requirements to receive the baccalaureate. The final responsibility for meeting graduation requirements rests with the student.

Miami Dade College

Biological Sciences - Biopharmaceutical Sciences Concentration
Bachelor of Science | Code: S9121 | 120 credits
CIP (1102601011**)**
Effective Term: Fall 2025 (2257)

The Bachelor of Science (B.S.) in Biological Sciences is designed to provide students with a broad foundation in biology. Miami Dade College students will explore structure, function, genetics, and evolution of cells and organisms, while being provided the hands-on skills necessary to obtain jobs in the Biological/Life Science fields. Students take the core courses in biology, chemistry, physics and mathematics, and must meet the same General Education Requirements of all students seeking an AA degree. Students may choose from a variety of electives in science and general education to complete their degree requirements.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS – 36 CREDITS REQUIRED			
Courses require a grade of "C" or higher to satisfy the general education requirement.			
Communications – 6 Credits Required			
ENC 1101	English Composition 1	3	
ENC 1102	English Composition 2	3	Pre-Req ENC 1101
Oral Communication – 3 Credits Required			
Select one course from the following:			
ENC 2300	Advanced Composition & Communication	3	Pre-Req ENC 1101, 1102
SPC 1017	Introduction to Communications	3	
SPC 2608	Introduction to Public Speaking	3	
Humanities – 6 Credits Required			
Select at least one course from the six State Core options.			
State Core (3 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Pre-Req ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theater Appreciation	3	
MDC Core (3 credits)			
ARC 2701	History of Architecture 1	3	
ARC 2702	History of Architecture 2	3	
ARH 1000	Art Appreciation	3	
ARH 2050	Art History 1	3	Pre-Req ARH 2050
ARH 2051	Art History 2	3	
ARH 2740	Cinema Appreciation	3	
DAN 2100	Dance Appreciation	3	
DAN 2130	Dance History 1	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Pre-Req ENC 1101
LIT 2120	A Survey of World Literature	3	Pre-Req ENC 1101 or ENC 1102 or Equivalent
MUH 2111	Survey of Music History 1	3	
MUH 2112	Survey of Music History 2	3	Pre-Req MUH 2112
MUL 1010	Music Appreciation	3	
MUL 2380	Jazz and Popular Music in America	3	
PHI 2010	Introduction to Philosophy	3	
PHI 2600	Introduction to Ethics	3	
THE 2000	Theater Appreciation	3	

Behavioral and Social Sciences - 6 Credits Required
Select at least one course from the six State Core options. To meet the Civic Literacy Competency Requirement for graduation one course selection should be AMH 2010 or AMH 2020 or POS 2041.

State Core (3 credits)

AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US Since 1877	3	
ANT 2000	Introduction to Anthropology	3	
ECO 2013	Principles of Economics (Macro) (W)	3	
POS 2041	American Federal Government	3	
PSY 2012	Introduction to Psychology	3	

MDC Core (3 credits)

AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US Since 1877	3	
ANT 2000	Introduction to Anthropology	3	
DEP2000	Human Growth and Development	3	
ECO 2013	Principles of Economics (Macro) (W)	3	
POS 2041	American Federal Government	3	
PSY 2012	Introduction to Psychology	3	
SYG 2000	Introduction to Sociology	3	
WOH 2012	History of World Civilization to 1789	3	
WOH 2022	History of World Civilization from 1789	3	

Natural Sciences - 6 Credits Required
Select at least one course from the State Core options.

State Core (3 credits)

BSC 2010	Principles of Biology 1	3	Pre/Corequisites: CHM 1045, BSC 2010
CHM 1045	General Chemistry & Qualitative Analysis	3	Prerequisite: CHM1025 or a passing score on the CART exam, MAC 1105; Co-requisite: CHM 1045L

MDC Core (3 credits)

BSC 2010	Principles of Biology 1	3	Pre/Corequisites: CHM 1045, BSC 2010
CHM 1025	Introductory Chemistry	3	
CHM 1045	General Chemistry & Qualitative Analysis	3	Prerequisite: CHM1025 or a passing score on the CART exam, MAC 1105; Co-requisite: CHM 1045L

Select at least one course from the State Core options. Laboratory courses do not fulfill this area's requirements.

State Core (3 credits)

MAC 1105	College Algebra	3	Pre-Req MAT 1033
STA 2023	Statistical Methods	3	Pre-Req MAT1033 or MGF 1131

MDC Core (3 credits)

MAC 1105	College Algebra	3	Pre-Req MAT 1033
STA 2023	Statistical Methods	3	Pre-Req MAT1033 or MGF 1131

General Education Elective – 3 Credits Required (MET WITH A "C" LETTER GRADE OR HIGHER)
See Academic Advisor for approved selection.

LOWER DIVISION ELECTIVES – 24 Credits Required (MET WITH A "D" LETTER GRADE OR HIGHER)
See Academic Advisor for approved selection.

UPPER DIVISION CORE REQUIREMENTS – 25 Credits Required

BCH 3023	Introduction Biochemistry	3	Prerequisites: BSC2010, 2010L, 2011, 2011L, CHM2211, 2211L; Corequisite: BCH3023L

BCH 3023L	Introduction Biochemistry Lab	2	Prerequisites: BSC2010, 2010L, 2011, 2011L, CHM2211, 2211L; Corequisite: BCH3023
MCB 3023	Principles of Microbiology	3	Prerequisites: BSC2010, 2010L, 2011, 2011L, CHM2211, 2211L; Corequisite: MCB3023L
MCB 3023L	Principles of Microbiology Lab	2	Prerequisites: BSC2010, 2010L, 2011, 2011L, CHM2211, 2211L; Corequisite: MCB3023
PCB 3060	Genetics	3	Prerequisites: BSC2010, 2010L; Corequisite: PCB3060L
PCB 3060L	Genetics Lab	2	Prerequisites: BSC2010, 2010L; Corequisite: PCB3060
BSC 3930	Biological Sciences Seminar	1	Prerequisites: BSC2010, 2010L, 2011, 2011L
PCB 4023	Molecular and Cell Biology	3	Prerequisites: BSC2010, 2010L, 2011, 2011L
PCB 4674	Evolution	3	Prerequisites: BSC2010, 2010L, 2011, 2011L, PCB3060, 3060L
BSC 4940	Senior Specialty Internship	3	Prerequisite: Departmental Approval

SPECIALTY AREA – 14-15 Credits Required

BOT 3015	Survey of Plant Diversity	3	Prerequisites: BSC2010, 2010L, 2011, 2011L Corequisites: BOT3015L
BOT 3015L	Survey of Plant Diversity Lab	1	Prerequisites: BSC2010, 2010L, 2011, 2011L Corequisites: BOT3015
or			
Z00 3021	Survey of Animal Diversity	3	Prerequisite: BSC2010, 2010L, 2011, 2011L Corequisites: Z003021L
ZOO 3021L	Survey of Animal Diversity Lab	1	Prerequisite: BSC2010, 2010L, 2011, 2011L Corequisites: Z003021
PCB 4097	Human Physiology	3	Prerequisite: BCH3023, 3023L, PCB4023, PHY2054, 2054L
PCB 4233C	Immunology	4	Prerequisites: MCB3023, 3023L
BSC 4434	Bioinformatics for Biologist	4	Prerequisites: BSC2010, 2010L, 2011, 2011L, PCB3060, 3060L
or			
MCB4503	Virology	3	Prerequisites: MCB3023, 3023L

ELECTIVES – 20-21 Credits Required

BOT*	FRE*	HBR*	PCB*	SPN*
BSC*	FRW*	ITA*	POR*	ZOO*
CHI*	GER*	JPN*	RUS*	
PHI 3633	Biomedical Ethics		3	

Additional Information:
Students should check their individualized Degree Audit Report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami Dade College. This outline includes current graduation requirements.

Students must complete all coursework with a "C" or better to complete the degree.

Miami Dade College

Biological Sciences - Biotechnology Concentration
Bachelor of Science | Code: S9120 | 120 credits
CIP (1102601011**)**
Effective Term: Fall 2025 (2257)

The Bachelor in Science (B.S.) in Biological Sciences is designed to provide students with a broad foundation in biology. Miami Dade College students will explore structure, function, genetics, and evolution of cells and organisms, while being provided the hands-on skills necessary to obtain jobs in the Biological/Life Science fields. Students take the core courses in biology, chemistry, physics and mathematics, and must meet the same General Education Requirements of all students seeking an AA degree. Students may choose from a variety of electives in science and general education to complete their degree requirements.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS – 36 Credits Required (MET WITH A GRADE of "C" OR HIGHER)			
Communications – 6 Credits Required			
ENC 1101	English Composition 1	3	
ENC 1102	English Composition 2	3	Pre-Req ENC 1101
Oral Communications – 3 Credits Required			
Select one course from the following:			
ENC 2300	Advanced Composition & Communication	3	Pre-Req ENC 1101, 1102
SPC 1017	Introduction to Communications	3	
SPC 2608	Introduction to Public Speaking	3	
Humanities – 6 Credits Required			
Select at least one course from the six State Core options.			
State Core 3 credits			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Pre-Req: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theater Appreciation	3	
MDC Core 3 credits			
ARC 2701	History of Architecture 1	3	
ARC 2702	History of Architecture 2	3	
ARH 1000	Art Appreciation	3	
ARH 2050	Art History 1	3	Pre-Req ARH 2050
ARH 2051	Art History 2	3	
ARH 2740	Cinema Appreciation	3	
DAN 2100	Dance Appreciation	3	
DAN 2130	Dance History 1	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Pre-Req: ENC 1101
LIT 2120	A Survey of World Literature	3	Pre-Req ENC 1101 or ENC 1102 or Equivalent
MUH 2111	Survey of Music History 1	3	
MUH 2112	Survey of Music History 2	3	Pre-Req MUH 2112
MUL 1010	Music Appreciation	3	
MUL 2380	Jazz and Popular Music in America	3	
PHI 2010	Introduction to Philosophy	3	
PHI 2604	Critical Thinking and Ethics	3	
THE 2000	Theater Appreciation	3	

Behavioral and Social Sciences - 6 Credits Required
Select at least one course from the six State Core options. To meet the Civic Literacy Competency Requirement for graduation one course selection should be AMH 2010 or AMH 2020 or POS 2041.

State Core 3 credits

AMH 2010	History of the US to 1877	3
AMH 2020	History of the US Since 1877	3
ANT 2000	Introduction to Anthropology	3
ECO 2013	Principles of Economics (Macro) (W)	3
POS 2041	American Federal Government	3
PSY 2012	Introduction to Psychology	3

MDC Core 3 credits

AMH 2010	History of the US to 1877	3
AMH 2020	History of the US Since 1877	3
ANT 2000	Introduction to Anthropology	3
DEP 2000	Human Growth and Development	3
ECO 2013	Principles of Economics (Macro) (W)	3
POS 2041	American Federal Government	3
PSY 2012	Introduction to Psychology	3
SYG 2000	Introduction to Sociology	3
WOH 2012	History of World Civilization to 1789	3
WOH 2022	History of World Civilization From 1789	3

MATHEMATICS 6 Credits*
Select at least 1 course from the 4 State Core options. Lab Credits are not allowed in this area.

State Core 3 Credits

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140
and MAC 1114, or MAC 1147			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

MDC Core 3 Credits

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 1106	Integrated College and Precalculus Algebra	5	Prerequisite: MAT1033
MAC 1114	Trigonometry	3	Prerequisite: MAC 1105 or MAC 1106
MAC 1140	Pre-Calculus Algebra	3	Prerequisite: MAC 1105
MAC 1147	Pre-Calculus Algebra and Trigonometry	5	Prerequisite: MAC1105
MAC 2233	Business Calculus	3	Prerequisite: MAC 1105 or MAC1106
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MAC 2312	Calculus and Analytical Geometry 2	4	Prerequisite: MAC 2311
MAC 2313	Calculus and Analytic Geometry 3	4	Prerequisite: MAC 2312
MAD 1100	Discrete Mathematics for Computer Science	3	Prerequisite: MAC1105
MAD 2104	Discrete Mathematics	3	Prerequisite: MAC 1106 or MAC1140
MAP 2302	Introduction to Differential Equations	3	Prerequisite: MAC 2312
MAS 2103	Elementary Linear Algebra	3	Prerequisite: MAC 2311
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)

MGF 1131	Mathematics in Context	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
QMB 2100	Basic Business Statistics (C)	3	Prerequisite: Acceptable score on the Algebra placement test or equivalent
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

NATURAL SCIENCES 6 Credits*
Select at least 1 course from the 13 State Core options. Lab Credits are not allowed in this area.

State Core 3 Credits

BSC 2010	Principles of Biology	3	Corequisite: BSC2010L
CHM 1045	General Chemistry & Qualitative Analysis	3	Prerequisite: CHM1025 or a passing score on the CART exam, MAC1105 Corequisite: CHM1045L

MDC Core 3 Credits

BSC 2010	Principles of Biology	3	Corequisite: BSC2010L
CHM 1025	Introductory Chemistry	3	Prerequisite: MAT 1033
CHM 1045	General Chemistry & Qualitative Analysis	3	Prerequisite: CHM1025 or a passing score on the CART exam, MAC1105 Corequisite: CHM 1045L

GENERAL EDUCATION ELECTIVE – 3 CREDITS REQUIRED (MET WITH A "C" LETTER GRADE OR HIGHER)
See Academic Advisor for approved selection.
LOWER DIVISION ELECTIVES – 24 Credits Required (MET WITH A "D" LETTER GRADE OR HIGHER)
See Academic Advisor for approved selection.

UPPER DIVISION CORE REQUIREMENTS – 25 Credits Required

BCH 3023	Introduction Biochemistry	3	Prerequisites: BSC2010, 2010L, 2011, 2011L, CHM2211, 2211L; Corequisite: BCH3023L
BCH 3023L	Introduction Biochemistry Lab	2	Prerequisites: BSC2010, 2010L, 2011, 2011L, CHM2211, 2211L; Corequisite: BCH3023
MCB 3023	Principles of Microbiology	3	Prerequisites: BSC2010, 2010L, 2011, 2011L, CHM2211, 2211L; Corequisite: MCB3023L
MCB 3023L	Principles of Microbiology Lab	2	Prerequisites: BSC2010, 2010L, 2011, 2011L, CHM2211, 2211L; Corequisite: MCB3023
PCB 3060	Genetics	3	Prerequisites: BSC2010, 2010L; Corequisite: PCB3060L
PCB 3060L	Genetics Lab	2	Prerequisites: BSC2010, 2010L; Corequisite: PCB3060
BSC 3930	Biological Sciences Seminar	1	Prerequisites: BSC2010, 2010L, 2011, 2011L
PCB 4023	Molecular and Cell Biology	3	Prerequisites: BSC2010, 2010L, 2011, 2011L
PCB 4674	Evolution	3	Prerequisites: BSC2010, 2010L, 2011, 2011L, PCB3060, 3060L
BSC 4940	Senior Specialty Internship	3	Prerequisite: Departmental Approval

SPECIALTY AREA – 19 Credits Required

BSC 2426	Biotechnology 1	3	Corequisites:BSC2426L
BSC 2426L	Biotechnology 1 Lab	2	Corequisites:BSC2426
BSC 2427	Biotechnology 2	3	Prerequisites:BSC2426, 2426L Corequisites: BSC2427L
BSC 2427L	Biotechnology 2 Lab	2	Prerequisites:BSC2426, 2426L Corequisites: BSC2427L

BSC 4422	Biotechnology 3	3	Prerequisites: BCH 3023, 3023L, BSC2427, 2427L, PCB 3060, 3060L Corequisites: BSC4422L
BSC 4422L	Biotechnology 3 Lab	2	Prerequisites: BCH 3023, 3023L, BSC2427, 2427L, PCB 3060, 3060L Corequisites: BSC4422
PCB 4233C	Immunology	4	Prerequisites: MCB3023, 3023L

ELECTIVES – 16 Credits Required

BOT*	FRE*	HBR*	PCB*	SPN*
BSC*	FRW*	ITA*	POR*	ZOO*
CHI*	GER*	JPN*	RUS*	
PHI 3633	Biomedical Ethics		3	

Additional Information:
Students should check their individualized Degree Audit Report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami Dade College. This outline includes current graduation requirements.

Students must complete all coursework with a "C" or better to complete the degree.

Miami Dade College

Biological Sciences - Science Education
Bachelor of Science | Code: S0122 | 120 credits
CIP (1102601011**)**
Effective Term: Fall 2025 (2257)

The Bachelor in Science (B.S.) in Biological Sciences is designed to provide students with a broad foundation in biology. Miami Dade College students will explore structure, function, genetics, and evolution of cells and organisms, while being provided the hands-on skills necessary to obtain jobs in the Biological/Life Science fields. Students take the core courses in biology, chemistry, physics and mathematics, and must meet the same General Education Requirements of all students seeking an AA degree. Students may choose from a variety of electives in science and general education to complete their degree requirements.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS – 36 Credits Required (MET WITH A GRADE of "C" OR HIGHER)			
Communications – 6 Credits Required			
ENC 1101	English Composition 1	3	
ENC 1102	English Composition 2	3	Pre-Req ENC 1101
Oral Communications – 3 Credits Required			
Select one course from the following:			
ENC 2300	Advanced Composition & Communication	3	Pre-Req ENC 1101, 1102
SPC 1017	Introduction to Communications	3	
SPC 2608	Introduction to Public Speaking	3	
Humanities – 6 Credits Required			
Select at least one course from the six State Core options.			
State Core 3 credits			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Pre-Req: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theater Appreciation	3	
MDC Core 3 credits			
ARC 2701	History of Architecture 1	3	
ARC 2702	History of Architecture 2	3	
ARH 1000	Art Appreciation	3	
ARH 2050	Art History 1	3	Pre-Req ARH 2050
ARH 2051	Art History 2	3	
ARH 2740	Cinema Appreciation	3	
DAN 2100	Dance Appreciation	3	
DAN 2130	Dance History 1	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Pre-Req: ENC 1101
LIT 2120	A Survey of World Literature	3	Pre-Req ENC 1101 or ENC 1102 or Equivalent
MUH 2111	Survey of Music History 1	3	
MUH 2112	Survey of Music History 2	3	Pre-Req MUH 2112
MUL 1010	Music Appreciation	3	
MUL 2380	Jazz and Popular Music in America	3	
PHI 2010	Introduction to Philosophy	3	
PHI 2604	Critical Thinking and Ethics	3	
THE 2000	Theater Appreciation	3	

SOCIAL SCIENCES 6 Credits*
Select at least 1 course from the 6 State Core options. To meet the Civic Literacy Competency Requirement for graduation one course selection should be AMH 2010 or AMH 2020 or POS 2041.

State Core 3 Credits

AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US Since 1877	3	
ANT 2000	Introduction to Anthropology	3	
ECO 2013	Principles of Economics (Macro) (W)	3	
POS 2041	American Federal Government	3	
PSY 2012	Introduction to Psychology	3	

MDC Core 3 Credits

AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US Since 1877	3	
ANT 2000	Introduction to Anthropology	3	
DEP 2000	Human Growth and Development	3	
ECO 2013	Principles of Economics (Macro) (W)	3	
POS 2041	American Federal Government	3	
PSY 2012	Introduction to Psychology	3	
SYG 2000	Introduction to Sociology	3	
WOH 2012	History of World Civilization to 1789	3	
WOH 2022	History of World Civilization From 1789	3	

NATURAL SCIENCES 6 Credits*

Select at least 1 course from the 13 State Core options. Lab Credits are not allowed in this area.

State Core 3 Credits

BSC 2010	Principles of Biology	3	Corequisite: BSC2010L
BSC 2085	Human Anatomy and Physiology I	3	Corequisite: BSC2085L

MDC Core 3 Credits

BSC 2010	Principles of Biology	3	Corequisite: BSC2010L
CHM 1025	Introductory Chemistry	3	Prerequisite: MAT 1033
CHM 1045	General Chemistry & Qualitative Analysis	3	Prerequisite: CHM1025 or a passing score on the CART exam, MAC1105 Corequisite: CHM 1045L

Mathematics – 6 Credits Required

Group A Must take 3 credits from the following group (State Core):

MAC 1105	College Algebra	3	Pre-Req MAT 1033
STA 2023	Statistical Methods	3	Pre-Req MAT1033 or MGF 1131

AND

Group B Must take 3 credits from the following group (MDC Core):

MAC 1105	College Algebra	3	Pre-Req MAT 1033
STA 2023	Statistical Methods	3	Pre-Req MAT1033 or MGF 1131

NOTE - THE FOLLOWING COURSE(S) ARE NOT ALLOWED FOR CREDIT IN THIS AREA: All Labs

General Education Elective – 3 Credits Required (MET WITH A "C" LETTER GRADE OR HIGHER)

See Academic Advisor for approved selection.

LOWER DIVISION ELECTIVES – 24 Credits Required (MET WITH A "D" LETTER GRADE OR HIGHER)

See Academic Advisor for approved selection.

UPPER DIVISION CORE REQUIREMENTS – 25 Credits Required

BCH 3023	Introduction Biochemistry	3	Prerequisites: BSC2010, 2010L, 2011, 2011L, CHM2211, 2211L; Corequisite: BCH3023L
BCH 3023L	Introduction Biochemistry Lab	2	Prerequisites: BSC2010, 2010L, 2011, 2011L, CHM2211, 2211L; Corequisite: BCH3023
MCB 3023	Principles of Microbiology	3	Prerequisites: BSC2010, 2010L, 2011, 2011L, CHM2211, 2211L; Corequisite: MCB3023L
MCB 3023L	Principles of Microbiology Lab	2	Prerequisites: BSC2010, 2010L, 2011, 2011L, CHM2211, 2211L; Corequisite: MCB3023

PCB 3060	Genetics	3	Prerequisites: BSC2010, 2010L; Corequisite: PCB3060L
PCB 3060L	Genetics Lab	2	Prerequisites: BSC2010, 2010L; Corequisite: PCB3060
BSC 3930	Biological Sciences Seminar	1	Prerequisites: BSC2010, 2010L, 2011, 2011L
PCB 4023	Molecular and Cell Biology	3	Prerequisites: BSC2010, 2010L, 2011, 2011L
PCB 4674	Evolution	3	Prerequisites: BSC2010, 2010L, 2011, 2011L, PCB3060, 3060L
BSC 4940	Senior Specialty Internship	3	Prerequisite: Departmental Approval

SPECIALTY AREA – 18 Credits Required

EDG 2311	Substitute Training	1	
EDG 3321	General Teaching Skills	3	
EDG 3443	Classroom & Behavior Management	3	
EDF 4430	Measurement and Assessment in Education	3	Prerequisites: EDG3321
EME 3430	Instructional Technology in Mathematics and Science	2	
RED 3013	Foundations of Reading Instruction	3	Pre/Corequisites: EDG3321
SCE 4362	Methods of Teaching Science	3	Pre/Co-requisites: EDF4430

ELECTIVES – 17 Credits Required

BOT*	FRE*	HBR*	PCB*	SPN*
BSC*	FRW*	ITA*	POR*	ZOO*
CHI*	GER*	JPN*	RUS*	

PHI 3633	Biomedical Ethics	3

Additional Information:
Students should check their individualized Degree Audit Report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami Dade College. This outline includes current graduation requirements.

Students must complete all coursework with a "C" or better to complete the degree.

Miami Dade College

Cybersecurity
Bachelor of Science | Code: S9515 | 120 credits
CIP (1101110031**)**
Effective Term: Fall 2025 (2257)

The Bachelor of Science (BS) in Cybersecurity degree is designed to help meet the local need for cyber security professionals. Students in this program gain detailed understanding and hands-on skills regarding the tools and protocols needed to use and manage cybersecurity infrastructure, risks, and vulnerabilities in real-world situations. The program curriculum includes courses in network defense, penetration testing, computer and network forensics, risk management and ethics, among others. These courses prepare students for multiple industry certifications such as Certified Ethical Hacker, Computer Hacking Forensics Investigator and Certified Information Security Manager.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (36.00 Credits)			
Courses require a grade of "C" or higher to satisfy the general education requirement.			
COMMUNICATIONS (6.00 credits)			
ENC 1101	English Composition 1 (W)	3	Appropriate college placement
ENC 1102	English Composition 2 (W)	3	Prerequisite: ENC 1101
ORAL COMMUNICATIONS (3.00 credits)			
Select one course from the following:			
ENC 2300	Advanced Composition & Communication (W)	3	Prerequisites: ENC 1101, ENC 1102
SPC 1017	Introduction to Communications (W)	3	
SPC 2608	Introduction to Public Speaking (W)	3	
HUMANITIES (6.00 credits)			
Select at least one course from the six State Core options.			
State Core (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature (W)	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy (W)	3	
THE 2000	Theatre Appreciation (W)	3	
MDC Core (3.00 credits)			
ARC 2701	History of Architecture 1	3	
ARC 2702	History of Architecture 2 (W)	3	
ARH 1000	Art Appreciation	3	
ARH 2050	Art History 1	3	
ARH 2051	Art History 2 (W)	3	Prerequisite: ARH 2050
ARH 2740	Cinema Appreciation (W)	3	
DAN 2100	Dance Appreciation	3	
DAN 2130	Dance History 1 (W)	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature (W)	3	Prerequisite: ENC 1101
LIT 2120	A Survey of World Literature (W)	3	Prerequisites: ENC 1101, ENC 1102
MUH 2111	Survey of Music History 1	3	
MUH 2112	Survey of Music History 2 (W)	3	Prerequisite: MUH 2111
MUL 1010	Music Appreciation	3	
MUL 2380	Jazz & Popular Music in America (W)	3	
PHI 2010	Introduction to Philosophy (W)	3	
PHI 2600	Introduction to Ethics (W)	3	
THE 2000	Theatre Appreciation (W)	3	

SOCIAL SCIENCES (6.00 credits)
Select at least one course from the six State Core options. To meet the Civic Literacy Competency Requirement for graduation one course selection should be AMH 2010 or AMH 2020 or POS 2041.

State Core (3.00 credits)

AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US Since 1877	3	
ANT 2000	Introduction to Anthropology	3	
ECO 2013	Principles of Economics (Macro) (W)	3	
POS 2041	American Federal Government	3	
PSY 2012	Introduction to Psychology	3	

MDC Core (3.00 credits)

AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US Since 1877	3	
ANT 2000	Introduction to Anthropology	3	
DEP2000	Human Growth and Development	3	
ECO 2013	Principles of Economics (Macro) (W)	3	
POS 2041	American Federal Government	3	
PSY 2012	Introduction to Psychology	3	
SYG 2000	Introduction to Sociology	3	
WOH 2012	History of World Civilization to 1789	3	
WOH 2022	History of World Civilization from 1789	3	

NATURAL SCIENCES (6.00 credits)
Select at least one course from the thirteen State Core options. Laboratory courses do not fulfill this area's requirements.

State Core (3.00 credits)

AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology		
BSC 2085	Human Anatomy and Physiology 1	3	Corequisite: BSC 2085L
CHM 1020	General Education Chemistry	3	
CHM 1045	General Chemistry and Qualitative Analysis	3	Prerequisites: CHM 1025 or passing score on the CART exam, and MAC 1105 Corequisite: CHM 1045L
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
PHY 2048	Physics with Calculus 1	4	Prerequisites: HS physics, or PHY 1025, PHY 2053 or departmental approval and MAC 2311; Corequisite: PHY 2048L
PHY 2053	Physics (without Calculus) 1	3	Prerequisites: MAC 1114, MAC 1147; Corequisite: PHY 2053L

MDC Core (3.00 credits)

AST 1002	Descriptive Astronomy	3	
BOT 1010	Botany	3	Corequisite: BOT 1010L
BSC 1005	General Education Biology	3	
BSC 1084	Functional Human Anatomy	3	
BSC 2010	Principles of Biology	3	Pre/Corequisites: CHM 1045, BSC 2010L
BSC 2020	Human Biology: Fund. of Anatomy & Physiology	3	
CHM1020	General Education Chemistry	3	
CHM1025	Introductory Chemistry	3	Prerequisite: MAT 1033
CHM1033	Chemistry for Health Sciences	3	Prerequisite: MAT 1033; Corequisite: CHM1033L

CHM1045	General Chemistry and Qualitative Analysis	3	Prerequisite: CHM1025 or a passing score on the CART exam, MAC 1105; Co-requisite: CHM 1045L
CHM1046	General Chemistry and Qualitative Analysis	3	Prerequisite: CHM1045 Corequisite: CHM1046L
CHM2200	Survey of Organic Chemistry	3	Prerequisite: CHM 1046 and CHM 1046L; Corequisite: CHM 2200L
CHM2210	Organic Chemistry 1	3	Prerequisite: CHM1046 and CHM 1046L; Corequisite: CHM2210L
CHM2211	Organic Chemistry 2	3	Prerequisite: CHM 2210 and CHM 2210L; Corequisite: CHM 2211L
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Sciences	3	
GLY 1010	Physical Geology	3	
GLY1100	Historical Geology	3	
HUN 1201	Essentials of Human Nutrition	3	
MET1010	Introduction to Weather	3	Pre/corequisite: PSC1515
OCB 1010	Introduction to Marine Biology	3	
OCE 1001	Introduction to Oceanography	3	
PCB 2033	Introduction to Ecology	3	Prerequisite: PSC 1515 or BSC 2011
PHY1004	Physics with Applications 1	3	Prerequisite: MAT 1033 with a grade of "C" or better; Corequisite: PHY1004L with a grade of "C" or better
PHY1020	General Education Physics	3	
PHY1025	Basic Physics	3	Prerequisite: MAC1105
PHY2048	Physics with Calculus 1	4	Prerequisites: High school physics or PHY 1025, PHY 2053 or departmental approval and MAC 2311; Corequisite: PHY 2048L
PHY2049	Physics with Calculus 2	4	Prerequisite: PHY 2048 and PHY 2048L; Corequisites: PHY 2049L and MAC 2312
PHY2053	Physics (without Calculus) 1	3	Prerequisite: MAC 1114 or MAC 1147; Corequisite PHY 2053L
PHY2054	Physics (without Calculus) 2	3	Prerequisite: PHY 2053; corequisite: PHY 2054L
PSC 1121	General Education Physical Science	3	Prerequisite: MAT 1033
PSC 1515	Energy in the Natural Environment	3	

Select at least one course from the State Core options.

State Core 3 Credits

MAC 1105	College Algebra (C)	3	Prerequisite: MAT 1033
STA 2023	Statistical Methods (C)	3	Prerequisite: MAT 1033 or MGF 1131

NOTE: MAC 1105 may be replaced by a higher-level mathematics below.

MDC Core 3 Credits

MAC 1106	Integrated College and Precalculus Algebra	5	Pre-Req: MAT1033
MAC 1114	Trigonometry	3	Pre-Req: MAC 1105 or MAC 1106
MAC 1140	Pre-Calculus Algebra	3	Pre-Req: MAC 1105
MAC 1147	Pre-Calculus Algebra and Trigonometry	5	Pre-Req: MAC1105
MAC 2233	Business Calculus	3	Pre-Req: MAC 1105 or MAC1106
MAC 2311	Calculus and Analytical Geometry 1	5	Pre-Req: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MAC 2312	Calculus and Analytical Geometry 2	4	Pre-Req: MAC 2311
MAC 2313	Calculus and Analytic Geometry 3	4	Pre-Req: MAC 2312
MAD 1100	Discrete Mathematics for Computer Science	3	Pre-Req: MAC1105
MAD 2104	Discrete Mathematics	3	Pre-Req: MAC 1106 or MAC1140
MAP 2302	Introduction to Differential Equations	3	Pre-Req: MAC 2312

GENERAL EDUCATION ELECTIVE (3.00 Credits)

See Academic Advisor for approved selection.

COMPUTER COMPETENCY REQUIREMENT
Students must satisfy the requirement by successfully completing a course (CGS 1060C or CTS 0050, an equivalent college credit course), or passing MDC's Computer Skills Placement examination, or a test exemption.

FOREIGN LANGUAGE COMPETENCY REQUIREMENT
Students must fulfill this requirement via three options:
Option A: Successful completion of two (2) credits (i.e., the equivalent of two years) in one (1) foreign language at the secondary (high school) level.
---**OR---**
Option B: Successful completion of the following courses at the elementary 2 level: ASL 1150C, CHI 1121, FRE 1121, GER 1121, ITA 1121, JPN 1121, POR 1121, RUS 1121, SPN 1121. These credits count towards the Lower Division Requirements area.
---**OR---**
Option C: Students may demonstrate completion of the elementary 2 level through standardized examination that document the required foreign language competency.

LOWER DIVISION REQUIREMENTS (36.00 Credits)
Group A: 12.00 credits

CTS 1111	Linux +	4	Prerequisite: CGS 1060C or Computer Competence
CTS 1120	Cybersecurity Fundamentals	4	
CTS 1134	Networking Technologies	4	

Group B: 4.00 credits
Select one course from the following offerings.

CIS 1531	Introduction to Secure Scripting	4	
COP1047C	Introduction to Python Programming	4	
COP1334	Introduction to C++ Programming	4	Prerequisite: CGS 1060C or Computer Competence

Group C: 20.00 credits
Any transferrable type-1 or type-2 courses. Please see academic advisor.

UPPER DIVISION REQUIREMENTS (36.00 Credits)

CIS 3215	Ethics in Cybersecurity	4	
CIS 3360	Principles of Information Security	4	Prerequisite: CTS 1134 or CTS 1650
CIS 3361	Information Security Management	4	Prerequisite: CIS 3360
CIS 4204	Ethical Hacking I	4	Prerequisite: CIS 3360
CIS 4378	Ethical Hacking II	4	Prerequisite: CIS 4204
CIS 4364	Intrusion Detection and Incident Response	4	Prerequisite: CIS 3360
CIS 4366	Computer Forensics	4	Prerequisite: CIS 3360
CIS 4388	Advanced Computer Forensics	4	Prerequisite: CIS 4366
CIS 4891	Capstone Project	4	Departmental Approval Required

PROGRAM ELECTIVES (12.00 Credits)
Electives are restricted to 3000 or 4000 level courses with the following prefixes:

CAP 3*	CET 3*	CGS 3*	CIS 4*	COP 4*
CAP 4*	CET 4*	CIS 3*	CNT 4*	CTS 3*

IMPORTANT INFORMATION

Civic Literacy Competency:
To earn a baccalaureate, students first entering the Florida College System or State University System in the 2021-2022 school year and thereafter must demonstrate competency in civic literacy. This requirement may be satisfied by passing AMH 2010, AMH 2020, or POS 2041 (listed under the Social Sciences core) AND passing an approved assessment. Civic literacy requirements vary for students who entered the College or University system prior to academic year 2021-22. For more information, go to Civic Literacy Competency.
Computer Competency: By the 16th earned college-level credit, students must attempt the computer competency requirement OR by the 31st earned college-level credit, students must satisfy the requirement (CGS1060C, an equivalent college credit course or the College's approved computer competency test). For more information, see Computer Competency.

Foreign Language: Students admitted to the baccalaureate degree program without meeting the foreign language admissions requirement of at least 2 courses (8-10 credit hours) of sequential foreign language at the secondary level or the equivalent of such instruction at the postsecondary level must earn such credits prior to graduation. For more information, refer to Foreign Language Competency.

Required Credit Hours and GPA: The baccalaureate requires student to earn a minimum of 120 unduplicated credit hours with a minimum cumulative grade point average of 2.0. All general education and all upper division requirements must be passed with the grade of "C" or better.

Pursuing or Have Earned an Associate's Degree: Students entering with an AS or AAS degree may have more than 24 elective credits and may need additional General Education credits to meet the 36 General Education credits required for the baccalaureate degree. Students entering with an AA degree may need additional electives to provide appropriate background for the baccalaureate program.

Graduation Requirements: Additional requirements may apply, which include, but are not limited to enrollment in courses that involve substantial writing and mathematical skill development (rule 6A-10.030, often referenced as Gordon Rule) and residency (number of credits that must be earned at MDC). Students should review their individualized Degree Audit Report to determine the specific graduation policies in effect for their program of study for their effective term. Students are highly encouraged to meet with their academic advisor on a regular basis and review the College Catalog to learn about all requirements to receive the baccalaureate. The final responsibility for meeting graduation requirements rests with the student.

Miami Dade College

Data Analytics
Bachelor of Science | Code: S9510 | 120 credits
CIP (1101101011**)**
Effective Term: Fall 2025 (2257)

The Bachelor of Science (BS) in Data Analytics program is designed to train and supply a workforce of skilled graduates in data manipulation and analysis across a spectrum of industries. Through the cross-disciplinary curriculum, students will learn to clean, organize, analyze, and interpret unstructured data, to derive knowledge and communicate discoveries using sophisticated visualization techniques. Students will demonstrate competence with fundamental algorithmic approaches to analyzing large data sets.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS – 36 Credits Required			
Courses require a grade of "C" or higher to satisfy the general education requirement.			
Communications – 6 Credits Required			
ENC 1101	English Composition 1 (W)	3	Appropriate college placement
ENC 1102	English Composition 2 (W)	3	Pre-Req ENC 1101
Oral Communications – 3 Credits Required			
Select one course from the following:			
ENC 2300	Advanced Composition & Communication (W)	3	Pre-Req ENC 1101, 1102
SPC 1017	Introduction to Communications (W)	3	
SPC 2608	Introduction to Public Speaking (W)	3	
Humanities – 6 Credits Required			
Select at least one course from the six State Core options.			
State Core (3 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature (W)	3	Pre-Req ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy (W)	3	Pre-Req ENC 1101
THE 2000	Theatre Appreciation (W)	3	
MDC Core (3 credits)			
ARC 2701	History of Architecture 1	3	
ARC 2702	History of Architecture 2 (W)	3	
ARH 1000	Art Appreciation	3	
ARH 2050	Art History 1	3	
ARH 2051	Art History 2 (W)	3	Pre-Req ARH 2050
ARH 2740	Cinema Appreciation (W)	3	
DAN 2100	Dance Appreciation	3	
DAN 2130	Dance History 1 (W)	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature (W)	3	Pre-Req ENC 1101
LIT 2120	A Survey of World Literature (W)	3	Pre-Req ENC 1101, 1102
MUH 2111	Survey of Music History 1	3	
MUH 2112	Survey of Music History 2 (W)	3	Pre-Req MUH 2111
MUL 1010	Music Appreciation	3	
MUL 2380	Jazz & Popular Music in America (W)	3	
PHI 2010	Introduction to Philosophy (W)	3	Pre-Req ENC 1101
PHI 2604	Critical Thinking/Ethics (W)	3	Pre-Req ENC 1101
THE 2000	Theatre Appreciation (W)	3	

Select at least one course from the six State Core options. To meet the Civic Literacy Competency Requirement for graduation one course selection should be AMH 2010 or AMH 2020 or POS 2041.

State Core (3 credits)

AMH 2020	History of the US Since 1877	3	
ANT 2000	Introduction to Anthropology	3	
ECO 2013	Principles of Economics (Macro) (W)	3	
POS 2041	American Federal Government	3	
PSY 2012	Introduction to Psychology	3	
SYG 2000	Introduction to Sociology	3	

MDC Core (3 credits)

AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US Since 1877	3	
ANT 2000	Introduction to Anthropology	3	
ANT 2410	Introduction to Cultural Anthropology	3	
CLP 1006	Psychology of Personal Effectiveness	3	
DEP 2000	Human Growth and Development	3	
ECO 2013	Principles of Economics (Macro) (W)	3	
POS 2041	American Federal Government	3	
PSY 2012	Introduction to Psychology	3	
SYG 2000	Introduction to Sociology	3	
WOH 2012	History of World Civilization to 1789	3	
WOH 2022	History of World Civilization from 1789		

MATHEMATICS 6 Credits*

Select at least 1 course from the 4 State Core options. Lab Credits are not allowed in this area.

State Core 3 Credits

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

MDC Core 3 Credits

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 1106	Integrated College and Precalculus Algebra	5	Prerequisite: MAT1033
MAC 1114	Trigonometry	3	Prerequisite: MAC 1105 or MAC 1106
MAC 1140	Pre-Calculus Algebra	3	Prerequisite: MAC 1105
MAC 1147	Pre-Calculus Algebra and Trigonometry	5	Prerequisite: MAC1105
MAC 2233	Business Calculus	3	Prerequisite: MAC 1105 or MAC1106
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MAC 2312	Calculus and Analytical Geometry 2	4	Prerequisite: MAC 2311
MAC 2313	Calculus and Analytic Geometry 3	4	Prerequisite: MAC 2312
MAD 1100	Discrete Mathematics for Computer Science	3	Prerequisite: MAC1105
MAD 2104	Discrete Mathematics	3	Prerequisite: MAC 1106 or MAC1140
MAP 2302	Introduction to Differential Equations	3	Prerequisite: MAC 2312
MAS 2103	Elementary Linear Algebra	3	Prerequisite: MAC 2311
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
MGF 1131	Mathematics in Context	3	Prerequisite: Student must meet the Developmental Education

			mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
QMB 2100	Basic Business Statistics (C)	3	Prerequisite: Acceptable score on the Algebra placement test or equivalent
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

NATURAL SCIENCES (6.00 credits)
Select at least one course from the thirteen State Core options. Laboratory courses do not fulfill this area's requirements.

State Core (3.00 credits)

AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
BSC 2085	Human Anatomy and Physiology 1	3	Corequisite: BSC 2085L
CHM 1020	General Education Chemistry	3	
CHM 1045	General Chemistry and Qualitative Analysis	3	Prerequisites: CHM 1025 or passing score on the CART exam, and MAC 1105 Corequisite: CHM 1045L
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
PHY 2048	Physics with Calculus 1	4	Prerequisites: HS physics, or PHY 1025, PHY 2053 or departmental approval and MAC 2311; Corequisite: PHY 2048L
PHY 2053	Physics (without Calculus) 1	3	Prerequisites: MAC 1114, MAC 1147; Corequisite: PHY 2053L

MDC Core (3.00 credits)

AST 1002	Descriptive Astronomy	3	
BOT 1010	Botany	3	Corequisite: BOT 1010L
BSC 1005	General Education Biology	3	
BSC 1084	Functional Human Anatomy	3	
BSC 2010	Principles of Biology	3	Pre/Corequisites: CHM 1045, BSC 2010L
BSC 2020	Human Biology: Fund. of Anatomy & Physiology	3	
CHM1020	General Education Chemistry	3	
CHM1025	Introductory Chemistry	3	Prerequisite: MAT 1033
CHM1033	Chemistry for Health Sciences	3	Prerequisite: MAT 1033; Corequisite: CHM1033L
CHM1045	General Chemistry and Qualitative Analysis	3	Prerequisite: CHM1025 or a passing score on the CART exam, MAC 1105; Co-requisite: CHM 1045L
CHM1046	General Chemistry and Qualitative Analysis	3	Prerequisite: CHM1045 Corequisite: CHM1046L
CHM2200	Survey of Organic Chemistry	3	Prerequisite: CHM 1046 and CHM 1046L; Corequisite: CHM 2200L
CHM2210	Organic Chemistry 1	3	Prerequisite: CHM1046 and CHM 1046L; Corequisite: CHM2210L
CHM2211	Organic Chemistry 2	3	Prerequisite: CHM 2210 and CHM 2210L; Corequisite: CHM 2211L
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Sciences	3	
GLY 1010	Physical Geology	3	
GLY1100	Historical Geology	3	
HUN 1201	Essentials of Human Nutrition	3	

MET1010	Introduction to Weather	3	Pre/corequisite: PSC1515
OCB 1010	Introduction to Marine Biology	3	
OCE 1001	Introduction to Oceanography	3	
PCB 2033	Introduction to Ecology	3	Prerequisite: PSC 1515 or BSC 2011
PHY1004	Physics with Applications 1	3	Prerequisite: MAT 1033 with a grade of "C" or better; Corequisite: PHY1004L with a grade of "C" or better
PHY1020	General Education Physics	3	
PHY1025	Basic Physics	3	Prerequisite: MAC1105
PHY2048	Physics with Calculus 1	4	Prerequisites: High school physics or PHY 1025, PHY 2053 or departmental approval and MAC 2311; Corequisite: PHY 2048L
PHY2049	Physics with Calculus 2	4	Prerequisite: PHY 2048 and PHY 2048L; Corequisites: PHY 2049L and MAC 2312
PHY2053	Physics (without Calculus) 1	3	Prerequisite: MAC 1114 or MAC 1147; Corequisite PHY 2053L
PHY2054	Physics (without Calculus) 2	3	Prerequisite: PHY 2053; Corequisite: PHY 2054L
PSC 1121	General Education Physical Science	3	Prerequisite: MAT 1033
PSC 1515	Energy in the Natural Environment	3	

General Education Elective – 3 Credits Required
See Academic Advisor for approved selection.

Computer Competency Requirement
By the 16th earned college-level credit, students must attempt the computer competency requirement OR by the 31st earned college-level credit, students must satisfy the requirement (CGS1060C, an equivalent college credit course or the College's approved computer competency test). For more information, see Computer Competency.

Foreign Language Competency Requirement
Students must fulfill this requirement via three options:
1: Successful completion of two (2) credits (i.e., the equivalent of two years) in one (1) foreign language at the secondary (high school) level.
---OR---
2: Successful completion of the following courses at the elementary 2 level: ASL 1150C, CHI 1121, FRE 1121, GER 1121, HAI 1121, HBR 1121, ITA 1121, JPN 1121, POR 1121, RUS 1121, SPN 1121. These credits count towards the Lower Division Requirements area.
---OR---
3: Students may demonstrate completion of the elementary 2 level through standardized examination that document the required foreign language competency.

LOWER DIVISION TECHNOLOGY – 24 Credits Required
Group A: 16 credits

CAP 1788	Introduction to Data Analytics	4	
CAP 2761C	Intermediate Analytics	4	Pre-Req CAP 1788 and CGS 1540C
CGS 1540C	Database Concepts and Design	4	
COP 1047C	Introduction to Python Programming	4	

Group B: 8 credits
Any transferable credit type 01 and credit type 02 course. Please see academic advisor.

UPPER DIVISION REQUIREMENTS – 40 Credits Required
Program Core: 28 credits

CAP 3321C	Data Wrangling	4	Pre-Req CAP 1788 and CAP 2761C
CAP 4631C	Machine Learning for Data Analytics I	4	Pre-Req COP 1047C; STA 3164 or CAP 3330
CAP 4633C	Machine Learning for Data Analytics II	4	Pre-Req CAP 4631C
CAP 4744	Data Visualization	4	Pre-Req CAP 1788 and CAP 2761C
CAP 4767	Data Mining	4	Pre-Req CAP 1788 and CAP 2761C
CAP 4784	Big Data	4	Pre-Req CAP 1788 and CAP 2761C
CAP 4910	Data Analytics Capstone	4	Departmental Approval Required

Upper-Division Statistics: 4 credits

Select one course from the following offerings.

CAP 3330	Programming R for Statistics	4	Pre-Req STA 2023
STA 3164	Statistical Methods II	4	Pre-Req STA 2023

Topics in Data Analytics: 8 credits

Select two courses from the following offerings. Special Topics courses may be repeated as long as the topics are different.

CAP 4936	Special Topics in Data Analytics	4	Departmental Approval Required
CIS 3368	Data Security & Governance	4	

PROGRAM ELECTIVES – 20 Credits Required

Electives are restricted to courses listed below:

ACG*, CAI* CAP*, CGS*, CIS*, CNT*, COP*, CTS*, FIN*, GEB*, MAC*, MAD*, MAN*, QMB*, STA*, ASL 1150C, CHI 1121, FRE 1121, GER 1121, HAI 1121, HBR 1121, ITA 1121, JPN 1121, POR 1121, RUS 1121, SPN 1121

IMPORTANT INFORMATION

Civic Literacy Competency: To earn a baccalaureate, students first entering the Florida College System or State University System in the 2021-2022 school year and thereafter must demonstrate competency in civic literacy. This requirement may be satisfied by passing AMH 2020 or POS 2041 (listed under the Social Sciences core) AND passing an approved assessment. Civic literacy requirements vary for students who entered the College or University system prior to academic year 2021-22. Please see the Testing and Assessment Department for examinations and guidelines.

Computer Competency: All MDC degree-seeking students with 16 or more credits must demonstrate computer competency prior to graduation. Students demonstrate this competency by passing the MDC computer competency test, currently known as CSP (Computer Skills Placement) examination or by enrolling in and successfully completing an equivalent course.

Foreign Language: Students admitted to the baccalaureate degree program without meeting the foreign language admissions requirement of at least 2 courses (8-10 credit hours) of sequential foreign language at the secondary level or the equivalent of such instruction at the postsecondary level must earn such credits prior to graduation.

Required Credit Hours and GPA: The baccalaureate requires student to earn a minimum of 120 unduplicated credit hours with a minimum cumulative grade point average of 2.0. All general education and all upper division requirements must be passed with the grade of "C" or better.

Pursuing or Have Earned an Associate's Degree: Students entering with an AS or AAS degree may have more than 24 elective credits and may need additional General Education credits to meet the 36 General Education credits required for the baccalaureate degree. Students entering with an AA degree may need additional electives to provide appropriate background for the baccalaureate program.

Graduation Requirements: Additional requirements may apply, which include, but are not limited to Gordon Rule (college level communication and computational skills) and residency (number of credits that must be earned at MDC). Students should review their individualized Degree Audit Report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami Dade College. Students are highly encouraged to meet with their academic advisor on a regular basis and review the College Catalog to learn about all requirements to receive the baccalaureate. The final responsibility for meeting graduation requirements rests with the student.

Miami Dade College

Early Childhood Education
Bachelor of Science | Code: S9270 | 120 credits
CIP (1101312101**)**
Effective Term: Fall Term 2025 (2257)

Upon completion of the Bachelor of Science Degree with a major in Early Childhood Education program, the student will be eligible to obtain a Florida Educator Certification in Pre-school (Birth to Age 4) and Pre-Kindergarten/ Primary (Age 3 to Grade 3) with endorsements in English for Speakers of Other Languages (ESOL), Reading, and Pre-Kindergarten Disabilities.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (36.00 Credits)			
Courses require a grade of "C" or higher to satisfy the general education requirement.			
COMMUNICATIONS (6.00 credits) **			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the DevelopmentalEducation reading and Writing Requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
ENC 1102	English Composition 2	3	Prerequisite: ENC 1101
ORAL COMMUNICATIONS (3.00 credits) **			
Select one course from the following:			
SPC 1017	Introduction to Communication	3	
SPC 2608	Introduction to Public Speaking	3	
HUMANITIES (6.00 credits) **			
Select at least one course from the six State Core options.			
State Core 3 credits			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MDC Core 3 credits			
ARC 2701	History of Architecture 1	3	
ARC 2702	History of Architecture 2	3	
ARH 1000	Art Appreciation	3	
ARH 2050	Art History 1	3	
ARH 2051	Art History 2	3	Prerequisite: ARH 2050
ARH 2740	Cinema Appreciation	3	Prerequisite: HUM 1020
DAN 2100	Dance Appreciation	3	
DAN 2130	Dance History 1	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
LIT 2120	A Survey of World Literature	3	Prerequisites: ENC 1101, ENC 1102 or equivalent
MUH 2111	Survey of Music History 1	3	
MUH 2112	Survey of Music History 2	3	Prerequisite: MUH 2111
MUL 1010	Music Appreciation	3	
MUL 2380	Jazz and Popular Music in America	3	
PHI 2010	Introduction to Philosophy	3	Prerequisite: ENC 1101
PHI 2604	Critical Thinking and Ethics	3	Prerequisite: ENC 1101
THE 2000	Theater Appreciation	3	

MATHEMATICS 6 Credits*
Select at least 1 course from the 4 State Core options. Lab Credits are not allowed in this area.

State Core 3 Credits

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

MDC Core 3 Credits

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 1106	Integrated College and Precalculus Algebra	5	Prerequisite: MAT1033
MAC 1114	Trigonometry	3	Prerequisite: MAC 1105 or MAC 1106
MAC 1140	Pre-Calculus Algebra	3	Prerequisite: MAC 1105
MAC 1147	Pre-Calculus Algebra and Trigonometry	5	Prerequisite: MAC1105
MAC 2233	Business Calculus	3	Prerequisite: MAC 1105 or MAC1106
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MAC 2312	Calculus and Analytical Geometry 2	4	Prerequisite: MAC 2311
MAC 2313	Calculus and Analytic Geometry 3	4	Prerequisite: MAC 2312
MAD 1100	Discrete Mathematics for Computer Science	3	Prerequisite: MAC1105
MAD 2104	Discrete Mathematics	3	Prerequisite: MAC 1106 or MAC1140
MAP 2302	Introduction to Differential Equations	3	Prerequisite: MAC 2312
MAS 2103	Elementary Linear Algebra	3	Prerequisite: MAC 2311
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
MGF 1131	Mathematics in Context	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
QMB 2100	Basic Business Statistics (C)	3	Prerequisite: Acceptable score on the Algebra placement test or equivalent
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

NATURAL SCIENCES (6.00 credits) **
Select at least one course from the thirteen State Core options.

State Core 3 credits

AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
BSC 2010	Principles of Biology	3	Pre/Corequisites: BSC 2010L, CHM 1045
BSC 2085	Human Anatomy and Physiology 1	3	Corequisite: BSC 2085L
CHM 1020	General Education Chemistry	3	

CHM 1045	General Chemistry & Qualitative Analysis	3	Prerequisite: CHM 1025 or a passing score on the CART exam, MAC 1105; Corequisite: CHM 1045L
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
PHY 2048	Physics with Calculus 1	3	Prerequisites: High school physics or PHY 1025, PHY 2053 or Departmental Approval and MAC 2311; Corequisite: PHY 2048L
PHY 2053	Physics without Calculus 1	3	Prerequisite: MAC 1114 or MAC 1147; Corequisite PHY 2053L

MDC Core 3 credits

AST 1002	Descriptive Astronomy	3	
BOT 1010	Botany	3	Corequisite: BOT 1010L
BSC 1005	General Education Biology	3	
BSC 1084	Functional Human Anatomy	3	
BSC 2010	Principles of Biology	3	Pre/Corequisites: BSC 2010L, CHM 1045
BSC 2020	Human Biology: Fundamentals of Anatomy/ Physiology	3	
CHM1020	General Education Chemistry	3	
CHM1025	Introductory Chemistry	3	Prerequisite: MAT 1033
CHM1033	Chemistry for Health Sciences	3	Prerequisite: MAT 1033; Corequisite: CHM1033L
CHM1045	General Chemistry and Qualitative Analysis	3	Prerequisite: CHM1025 or a passing score on the CART exam, MAC 1105. Co-requisite: CHM 1045L
CHM1046	General Chemistry and Qualitative Analysis	3	Prerequisite: CHM1045 Corequisite: CHM1046L
CHM2200	Survey of Organic Chemistry	3	Prerequisite: CHM 1046 and CHM 1046L; Corequisite: CHM 2200L
CHM2210	Organic Chemistry 1	3	Prerequisite: CHM1046 and CHM 1046L; Corequisite: CHM2210L
CHM2211	Organic Chemistry 2	3	Prerequisite: CHM 2210 and CHM 2210L; Corequisite: CHM 2211L
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
GLY1100	Historical Geology	3	
HUN 1201	Essentials of Human Nutrition	3	
OCB 1010	Introduction to Marine Biology	3	
OCE 1001	Introduction to Oceanography	3	
PCB 2033	Introduction to Ecology	3	Prerequisites: BSC 2011 or PSC 1515
PHY1004	Physics with Applications 1	3	Prerequisite: MAT 1033 with a grade of "C" or better; Corequisite: PHY1004L with a grade of "C" or better
PHY1020	General Education Physics	3	
PHY1025	Basic Physics	3	Prerequisite: MAC1105
PHY2048	Physics with Calculus 1	4	Prerequisites: High school physics or PHY 1025, PHY 2053 or departmental approval and MAC 2311; Corequisite: PHY 2048L
PHY2049	Physics with Calculus 2	4	Prerequisite: PHY 2048 and PHY 2048L; Corequisites: PHY 2049L and MAC 2312
PHY2053	Physics (without Calculus) 1	3	Prerequisite: MAC 1114 or MAC 1147; Corequisite PHY 2053L

PHY2054	Physics (without Calculus) 2	3	Prerequisite: PHY 2053; corequisite: PHY 2054L
PSC 1121	General Education Physical Science	3	Prerequisite: MAT 1033
PSC 1515	Energy in the Natural Environment	3	

SOCIAL SCIENCES (6.00 credits) **

Select at least one course from the State Core options. To meet the Civic Literacy Competency Requirement for graduation one course selection should be AMH 2010 or AMH 2020 or POS 2041.

State Core 3 credits

AMH 2010	History of the US to 1877	3
AMH 2020	History of the US Since 1877	3
POS 2041	American Federal Government	3

MDC Core 3 credits

DEP 2000	Human Growth and Development	3
PSY 2012	Introduction to Psychology	3

GENERAL EDUCATION ELECTIVES (3.00 credits)

EEC 1000	Introduction to Early Childhood Education	3
EEC 1001	Introduction to Early Childhood Infant/Toddler Education	3

COMPUTER COMPETENCY REQUIREMENT

Test type(s) needed:
Computer Skills Placement (CSP)
---OR---

CGS 1060C	Introduction to Computer Technology & Applications

COMMON PREREQUISITES (3.00 Credits)

LOWER DIVISION REQUIREMENTS (6.00 Credits)

EME 2040	Introduction to Technology for Educators	3
---OR---		
EME 2071	Educating Young Children for Digital Literacy in the 21st Century	3
EDF 2144	Maximizing Student Potential in the School Context	3

LOWER DIVISION ELECTIVES (15.00 Credits)

AMH2010	BSC1005L	CHM1046	ENL2012	MAC1105	OCE1001
AMH2020	BSC1084	CHM1046L	ENL2022	MAC1105L	PHI1100
AMH2035	BSC2010	CHM2200	ESC1000	MAC1106	PHI2010
AML2010	BSC2010L	CHM2200L	EUH2032	MAC1114	PHI2600
AML2020	BSC2011	CHM2210	EVR1001	MAC1140	PHY1004
ANT2000	BSC2011L	CHM2210L	FRE1120	MAC1147	PHY1004L
ARC2701	BSC2020	CHM2211	FRE1121	MAC2233	PHY1020
ARC2702	BSC2085	CHM2211L	GER1120	MAC2311	PHY1025
ARH1000	BSC2085L	CLP2000	GER1121	MAC2312	PHY2048
ARH2050	BSC2086	CRW2001	GLY1010	MAC2313	PHY2048L
ARH2051	BSC2086L	CRW2002	GLY1010L	MAD1100	PHY2049
ARH2740	BSC2426	DAN2100	GLY1100	MAD2104	PHY2049L
ASL1140C	BSC2426L	DAN2130	HLP1081	MAP2302	PHY2053
ASL1150C	BSC2427	DAN2131	HUM1020	MAS2103	PHY2053L
ASL2210	BSC2427L	DEP2000	HUN1201	MCB2010	PHY2054
ASL2220	CHI1120	DEP2100	INR2002	MCB2010L	PHY2054L
ASL2400	CHI1121	ECO2013	ITA1120	MET1010	POR1120
ASL2430	CHM1020	ECO2023	ITA1121	MGF1130	POR1121
ASL2510	CHM1025	ECO2301	JPN1120	MGF1131	POS2041
AST1002	CHM1025L	EDF1005	JPN1121	MUH2111	POS2112
BOT1010	CHM1033	ENC1101	LAH2021	MUH2112	PSC1121
BOT1010L	CHM1033L	ENC1102	LIT2000	MUL1010	PSC1515
BOT2150C	CHM1045	ENC2300	LIT2090	MUL2380	PSY2012
BSC1005	CHM1045L	ENG2012	LIT2120	OCB1010	QMB2100

REL1210	RUS1121	SPC2601	SPN1121	THE2000
REL1240	SOP2002	SPC2608	STA2023	WOH2012
RUS1120	SPC1017	SPN1120	SYG2000	WOH2022

PROFESSIONAL EDUCATION CORE (27.00 Credits)

EDF 3115	Child Development for Inclusive Settings	3
EEC 3201	Working with Young Children with Special Needs and their Families	3
EEC 3213	Emergent Literacy through the Use of Children's Literature	3
EEC 3301	General Teaching Methods for Early Childhood Education	3
EEC 3412	Family Interaction and Cultural Continuity	3
EEC 3613	Observation and Assessment in Early Childhood	3
EEX 3226	Assessment of All Young Children	3
EEX 3603	Positive Behavior Supports in Inclusive Settings	3
RED 3009	Early and Emergent Literacy	3

DISCIPLINE CONTENT (21.00 Credits)

EEC 3211	Science, Technology, and Mathematics (STEM) Methods for ECE I	3
EEC 3212	Integrated Social Sciences, s Humanities, and Art	3
EEC 4219C	Science, Technology, and Mathematics (STEM) Methods for ECE II	3
EEC 4268	Designing and Implementing an Integrated (Practicum)	3
LAE 4211	Methods and Resources for Literacy n Development in Young Childre	3
TSL 3080	ESOL in ECE I	3
TSL 4310	ESOL in ECE II	3

STUDENT TEACHING/INTERNSHIP (12.00 Credits)

EEC 4936	Student Teaching Seminar: ECE	2
EEC 4940	Student Teaching in Early Childhood Education	10

Additional Information:

**General Education Courses required grade of "C" or better.

Students should check their individualized Degree Audit Report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami Dade College. This outline includes current graduation requirements.

Miami Dade College

Electrical and Computer Engineering Technology
Bachelor of Science | Code: S9100 | 134 credits
CIP (1101503031**)**
Effective Term: Fall Term 2025 (2257)

Electrical and Computer Engineering Technology (ECET) is part of almost everything society depends on. The ECET program at Miami Dade College is designed to provide students with a well-rounded hands-on education in electrical and computer systems. The program emphasizes the application of electrical/electronic and computer hardware and software principles and devices. Students study and learn valuable skills from various areas such as: computer hardware and interfacing, computer-based instrumentation and process control, digital communication and networking, and microcontroller systems and applications. Graduates from the ECET program have technical skills that allows them to work in a broad range of industries including transportation, green energy, networks and communications, aerospace, defense, and biomedical.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS – 36 Credits Required			
Courses require a grade of "C" or higher to satisfy the general education requirement.			
Communications – 6 Credits Required			
ENC 1101	English Composition 1 (Gw)	3	Appropriate college placement
ENC 1102	English Composition 2 (Gw)	3	Pre-Req ENC 1101
Oral Communications – 3 Credits Required			
Select one course from the following:			
ENC 2300	Advanced Composition & Communication (Gw)	3	Pre-Req ENC 1101, 1102 LIT 2480
	Issues in Literature & Culture (Gw)	3	Pre-Req ENC 1102
SPC 1017	Introduction to Communication (Gw)	3	
SPC 2608	Introduction to Public Speaking (Gw)	3	
Humanities – 6 Credits Required			
Select at least one course from the six State Core options.			
State Core (3 credits)			
Group A: State Core (3 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature (Gw)	3	Pre-Req ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy (Gw)	3	Pre-Req ENC 1101
THE 2000	Theatre Appreciation (Gw)	3	
MDC Core (3 credits)			
ARC 2701	History of Architecture 1	3	
ARC 2702	History of Architecture 2 (Gw)	3	
ARH 1000	Art Appreciation	3	
ARH 2050	Art History 1	3	
ARH 2051	Art History 2 (Gw)	3	Pre-Req ARH 2050
ARH 2740	Cinema Appreciation (Gw)	3	
DAN 2100	Dance Appreciation	3	
DAN 2130	Dance History 1 (Gw)	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature (Gw)	3	Pre-Req ENC 1101
LIT 2120	A Survey of World Literature (Gw)	3	Pre-Req ENC 1101, 1102
MUH 2111	Survey of Music History 1	3	
MUH 2112	Survey of Music History 2 (Gw)	3	Pre-Req MUH 2111
MUL 1010	Music Appreciation	3	
MUL 2380	Jazz & Popular Music in America (Gw)	3	
PHI 2010	Introduction to Philosophy (Gw)	3	Pre-Req ENC 1101

PHI 2604	Critical Thinking/Ethics (Gw)	3	Pre-Req ENC 1101
THE 2000	Theatre Appreciation (Gw)	3	

Behavioral and Social Sciences – 6 Credits Required
Select at least one course from the six State Core options. To meet the Civic Literacy Competency Requirement for graduation one course selection should be AMH 2010 or AMH 2020 or POS 2041.

State Core (3 credits)

AMH 2010	History of the US to 1877	3
AMH 2020	History of the US Since 1877	3
ANT 2000	Introduction to Anthropology	3
ECO 2013	Principles of Economics (W)	3
POS 2041	American Federal Government	3
PSY 2012	Introduction to Psychology	3

MDC Core (3 credits)

AMH 2010	History of the US to 1877	3
AMH 2020	History of the US Since 1877	3
ANT 2000	Introduction to Anthropology	3
DEP 2000	Human Growth and Development	3
ECO 2013	Principles of Economics (W)	3
POS 2041	American Federal Government	3
PSY 2012	Introduction to Psychology	3
SYG 2000	Introduction to Sociology	3
WOH 2012	History of World Civilization to 1789	3
WOH 2022	History of World Civilization from 1789	3

NATURAL SCIENCES (6.00 credits)
Select at least one course from the thirteen State Core options. Laboratory courses do not fulfill this area's requirements.

State Core (3.00 credits)

PHY 2048	Physics with Calculus 1	4	Prerequisites: HS physics, or PHY 1025, PHY 2053 or departmental approval and MAC 2311; Corequisite: PHY 2048L

MDC Core (3.00 credits)

PHY2049	Physics with Calculus 2	4	Prerequisite: PHY 2048 and PHY 2048L; Corequisites: PHY 2049L and MAC 2312

MATHEMATICS 6 Credits*
Select at least 1 course from the 4 State Core options. Lab Credits are not allowed in this area.

State Core 3 Credits

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

MDC Core 3 Credits

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 1106	Integrated College and Precalculus Algebra	5	Prerequisite: MAT1033
MAC 1114	Trigonometry	3	Prerequisite: MAC 1105 or MAC 1106
MAC 1140	Pre-Calculus Algebra	3	Prerequisite: MAC 1105

MAC 1147	Pre-Calculus Algebra and Trigonometry	5	Prerequisite: MAC1105
MAC 2233	Business Calculus	3	Prerequisite: MAC 1105 or MAC1106
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MAC 2312	Calculus and Analytical Geometry 2	4	Prerequisite: MAC 2311
MAC 2313	Calculus and Analytic Geometry 3	4	Prerequisite: MAC 2312
MAD 1100	Discrete Mathematics for Computer Science	3	Prerequisite: MAC1105
MAD 2104	Discrete Mathematics	3	Prerequisite: MAC 1106 or MAC1140
MAP 2302	Introduction to Differential Equations	3	Prerequisite: MAC 2312
MAS 2103	Elementary Linear Algebra	3	Prerequisite: MAC 2311
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
MGF 1131	Mathematics in Context	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
QMB 2100	Basic Business Statistics (C)	3	Prerequisite: Acceptable score on the Algebra placement test or equivalent
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

General Education Elective – 3 Credits Required

PHY 2049L	Physics with Calculus 2 Lab	1	Pre/Co-Req PHY2048 and MAC2312, MAC2313, MAD2104, MAS 2103, or MAP 2302/PHY2049L

ANY OTHER GENERAL EDUCATION ELECTIVE APPROVED COURSE. PLEASE SEE ADVISOR FOR ASSISTANCE.

Computer Competency Requirement
Students must satisfy the requirement by successfully completing a course (CGS1060C or CTS0050, an equivalent college credit course), or passing MDC's Computer Skills Placement examination, or a test exemption.

Foreign Language Competency Requirement
Students must fulfill this requirement via three options:
Option A: Successful completion of two (2) credits (i.e., the equivalent of two years) in one (1) foreign language at the secondary (high school) level.
---**OR---**
Option B: Successful completion of the following courses at the elementary 2 level: ASL1150C, CHI1121, FRE1121, GER1121, ITA1121, JPN1121, POR1121, RUS1121, SPN1121. These credits count towards the Lower Division Requirements area.
---**OR---**

Option C: Students may demonstrate completion of the elementary 2 level through standardized examination that document the required foreign language competency.

PROGRAM COMMON PREREQUISITES – 10 Credits Required

MAC 2311	Calculus and Analytical Geometry 1	5	Pre-Req MAC1106 and MAC1114, or MAC1114 and MAC1140, or MAC1147
MAC 2312	Calculus and Analytical Geometry 2	4	Pre-Req MAC2311
PHY 2048	Physics with Calculus 1 (GER)	4	Pre/Co-Req PHY1025 or PHY2053, and MAC 2311, MAC2312, MAC2313, MAD2104, MAS 2103, or MAP 2302/PHY2048L
PHY 2048L	Physics with Calculus 1 Lab	1	Pre/Co-Req PHY1025 or PHY2053, and MAC 2311 MAC2312, MAC2313, MAD2104, MAS 2103, or MAP 2302/PHY2048 (GER) General Education Requirement

LOWER DIVISION REQUIREMENTS – 53 Credits Required

CET 1110C	Digital Circuits	4	Pre-Req EET1015C and MAC1105. Pre/Co-Req: COP2270
CET 2113C	Advanced Digital Circuits	4	Pre-Req CET1110C and COP2270
CET 2123C	Microprocessors	4	Pre-Req CET1110C and COP2270
COP 2270	C for Engineers	4	Pre/Co-Req MAC1105
EET 1015C	Direct Current Circuits	4	Pre/Co-Req MAC1105
EET 1025C	Alternating Current Circuits	4	Pre-Req EET1015C; Pre/Co-Req MAC1114 or MAC1147
EET 1141C	Electronics 1	4	Pre-Req EET1025C; MAC1114 or MAC1147
EET 2101C	Electronics 2	4	Pre-Req EET1041C
EET 2323C	Analog Communications	4	Pre-Req EET1141C
EET 2351C	Digital and Data Communications	4	Pre-Req CET2123C
ETI 2670	Engineering Economic Analysis	3	Pre-Req MAC1105
ETS 2673C	Programmable Logic Controls	4	Pre-Req CET1110C
MAC1114	Trigonometry	3	Pre-Req MAC1105
MAP 2302	Introduction to Differential Equations	3	Pre-Req MAC2312

UPPER DIVISION REQUIREMENTS – 29 Credits Required

CET 3126C	Computer Architecture	4	
EET 3716C	Advanced System Analysis	4	Pre-Req EET1025C and MAC2312
EET 4158C	Linear Integrated Circuits	4	Pre-Req EET3716C
EET 4165C	Senior Design 1	3	Department Approval Required
EET 4166C	Senior Design 2	2	Pre-Req EET4165C; Dept. Approval Req.
EET 4730C	Feedback Control Systems	4	Pre-Req EET3716C
EET 4732C	Signals and Systems	4	Pre-Req EET3716C
ETI 4480C	Applied Robotics	4	Pre-Req EET3126C

PROGRAM ELECTIVES – 6 Credits Required

Group A: Select one course from the following offerings.
ETP 3240 Power Systems 3 Pre-Req EET1025C
ETP 3320 Introduction to Renewable Energy Technology 3 Pre-Req EET2101Cformatting

---AND---

Group B: Select one course from the following offerings.
CET 4190C Applied Digital Signal Processing 4 Pre-Req COP2270, EET4732C, and EET2323C or EET2351C
CET 4663C Electronic Security 3 Pre-Req CET2123C and COP2270formatting

TOTAL CREDITS
General Education Requirements 36 credits
Program Common Prerequisites 10 credits
Lower Division Requirements 53 credits
Upper Division Requirements 29 credits
Upper Division Electives 6 credits
Total 134 credits

IMPORTANT INFORMATION
Civic Literacy Competency: Associate in arts or baccalaureate degree students entering a Florida College System (FCS) or State University System (SUS) institution in the 2021-2022 academic school year and thereafter and Associate in Science degree students entering a Florida College System (FCS) or State University System (SUS) institution in the 2022-2023 academic school year and thereafter must demonstrate competency through successful completion of a civic literacy course (AMH 2010 or AMH 2020 or POS 2041) AND by achieving a passing score on the Florida Civic Literacy Examination (FCLE). First-time-in-college students who entered between Fall 2018 and Summer 2021 will continue to have the option of passing a course or an approved assessment. For more information regarding the Florida Civic Literacy Requirement, go to Civic Literacy Competency.

Foreign Language: Students admitted to the baccalaureate degree program without meeting the foreign language admission requirement of at least 2 courses (8-10 credit hours) of sequential foreign language at the secondary level or the equivalent of such instruction at the postsecondary level must earn such credits prior to graduation.

Computer Competency: By the 16th earned college-level credit, students must attempt the computer competency requirement OR by the 31st earned college-level credit, students must satisfy the requirement (CGS1060C, an equivalent college credit course or the College's approved computer competency test). For more information, see Computer Competency.

Required Credit Hours and GPA: The baccalaureate requires student to earn a minimum of 120 unduplicated credit hours with a minimum cumulative grade point average of 2.0. All general education and all upper division requirements must be passed with the grade of "C" or better.

Pursuing or Have Earned an Associate's Degree: Students entering with an AS or AAS degree may have more than 24 elective credits and may need additional General Education credits to meet the 36 General Education credits required for the baccalaureate degree. Students entering with an AA degree may need additional electives to provide appropriate background for the baccalaureate program.

Graduation Requirements: Students should review their individualized Degree Audit Report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami Dade College. Students are highly encouraged to meet with their academic advisor on a regular basis and review the College Catalog to learn about all graduation requirements. The final responsibility for meeting graduation requirements rests with the student.

Miami Dade College

Exceptional Student Education (K-12)
Bachelor of Science | Code: S9260 | 120 credits
CIP (1101310011**)**
Effective Term: Fall Term 2025 (2257)

The Bachelor of Science (BS) in Exceptional Student Education (K-12) prepares students to work with children with disabilities who need specially designed instruction and related services. Graduates of the program are eligible for Florida Professional Teacher Certification in ESE, Reading, and ESOL.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (36 Credits)			
Courses require a grade of "C" or higher to satisfy the general education requirement.			
COMMUNICATIONS (6.00 credits)			
ENC 1101	English Composition 1	3	
ENC 1102	English Composition 2	3	
ORAL COMMUNICATIONS (3.00 credits)			
Select one course from the following:			
ENC 2300	Advanced Composition & Communications	3	Prerequisite: ENC 1101, 1102
SPC 1017	Introduction to Communication	3	
SPC 2608	Introduction to Public Speaking	3	
HUMANITIES (6.00 credits)			
Select at least one course from the six State Core options.			
State Core 3 credits			
HUMANITIES (6.00 credits)			
Select at least one course from the six State Core options.			
State Core 3 credits			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MDC Core 3 credits			
ARC 2701	History of Architecture 1	3	
ARC 2702	History of Architecture 2	3	
ARH 1000	Art Appreciation	3	
ARH 2050	Art History 1	3	
ARH 2051	Art History 2	3	Prerequisite: ARH 2050
ARH 2740	Cinema Appreciation	3	Prerequisite: HUM 1020
DAN 2100	Dance Appreciation	3	
DAN 2130	Dance History 1	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
LIT 2120	A Survey of World Literature	3	Prerequisites: ENC 1101, ENC 1102 or equivalent
MUH 2111	Survey of Music History 1	3	
MUH 2112	Survey of Music History 2	3	Prerequisite: MUH 2111
MUL 1010	Music Appreciation	3	
MUL 2380	Jazz and Popular Music in America	3	
PHI 2010	Introduction to Philosophy	3	
PHI 2600	Introduction to Ethics	3	
THE 2000	Theater Appreciation	3	

SOCIAL SCIENCES (6.00 credits)
Select at least one course from the State Core options. To meet the Civic Literacy Competency Requirement for graduation one course selection should be AMH 2010 or AMH 2020 or POS 2041.

State Core 3 credits

AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US Since 1877	3	
POS 2041	American Federal Government	3	

MDC Core 3 credits

DEP 2000	Human Growth and Development	3	
PSY 2012	Introduction to Psychology	3	

NATURAL SCIENCES (6.00 credits)
Select at least one course from the thirteen State Core options.

State Core 3 credits

AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
BSC 2010	Principles of Biology	3	Pre/Corequisites: BSC 2010L, CHM 1045
BSC 2085	Human Anatomy and Physiology 1	3	Corequisite: BSC 2085L
CHM 1020	General Education Chemistry	3	
CHM 1045	General Chemistry & Qualitative Analysis	3	Prerequisite: CHM 1025 or a passing score on the CART exam, MAC 1105; Corequisite: CHM 1045L
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
PHY 2048	Physics with Calculus 1	3	Prerequisites: High school physics or PHY 1025, PHY 2053 or Departmental Approval and MAC 2311; Corequisite: PHY 2048L
PHY 2053	Physics without Calculus 1	3	Prerequisite: MAC 1114 or MAC 1147; Corequisite PHY 2053L

MDC Core 3 credits

AST 1002	Descriptive Astronomy	3	
BOT 1010	Botany	3	Corequisite: BOT 1010L
BSC 1005	General Education Biology	3	
BSC 1084	Functional Human Anatomy	3	
BSC 2010	Principles of Biology	3	Pre/Corequisites: BSC 2010L, CHM 1045
BSC 2020	Human Biology: Fundamentals of Anatomy/ Physiology	3	
BSC 2085	Human Anatomy and Physiology 1	3	Corequisite: BSC 2085L
CHM1020	General Education Chemistry	3	
CHM1025	Introductory Chemistry	3	Prerequisite: MAT 1033
CHM1033	Chemistry for Health Sciences	3	Prerequisite: MAT 1033; Corequisite: CHM1033L
CHM1045	General Chemistry and Qualitative Analysis	3	Prerequisite: CHM1025 or a passing score on the CART exam, MAC 1105. Co-requisite: CHM 1045L
CHM1046	General Chemistry and Qualitative Analysis	3	Prerequisite: CHM1045 Corequisite: CHM1046L
CHM2200	Survey of Organic Chemistry	3	Prerequisite: CHM 1046 and CHM 1046L; Corequisite: CHM 2200L
CHM2210	Organic Chemistry 1	3	Prerequisite: CHM1046 and CHM 1046L; Corequisite: CHM2210L
CHM2211	Organic Chemistry 2	3	Prerequisite: CHM 2210 and CHM 2210L; Corequisite: CHM 2211L

ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
GLY1100	Historical Geology	3	
HUN 1201	Essentials of Human Nutrition	3	
MET1010	Introduction to Weather	3	Pre/corequisite: PSC1515
OCE 1001	Introduction to Oceanography	3	
PCB 2033	Introduction to Ecology	3	Prerequisites: BSC 2011 or PSC 1515
PHY1004	Physics with Applications 1	3	Prerequisite: MAT 1033 with a grade of "C" or better; Corequisite: PHY1004L with a grade of "C" or better
PHY1020	General Education Physics	3	
PHY1025	Basic Physics	3	Prerequisite: MAC1105
PHY2048	Physics with Calculus 1	4	Prerequisites: High school physics or PHY 1025, PHY 2053 or departmental approval and MAC 2311; Corequisite: PHY 2048L
PHY2049	Physics with Calculus 2	4	Prerequisite: PHY 2048 and PHY 2048L; Corequisites: PHY 2049L and MAC 2312
PHY2053	Physics (without Calculus) 1	3	Prerequisite: MAC 1114 or MAC 1147; Corequisite PHY 2053L
PHY2054	Physics (without Calculus) 2	3	Prerequisite: PHY 2053; corequisite: PHY 2054L
PSC 1121	General Education Physical Science	3	Prerequisite: MAT 1033
PSC 1515	Energy in the Natural Environment	3	

MATHEMATICS (6.00 credits)

Select at least one course from the State Core options. Laboratory courses do not fulfill this area's requirements.

State Core 3 credits

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MGF 1130	Mathematical Thinking	3	Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

MDC Core 3 credits

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 1106	Integrated College and Precalculus Algebra	5	Prerequisite: MAT1033
MAC 1114	Trigonometry	3	Prerequisite: MAC 1105 or MAC 1106
MAC 1140	Pre-Calculus Algebra	3	Prerequisite: MAC 1105
MAC 1147	Pre-Calculus Algebra and Trigonometry	5	Prerequisite: MAC1105
MAC 2233	Business Calculus	3	Prerequisite: MAC 1105 or MAC1106
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MAC 2312	Calculus and Analytical Geometry 2	4	Prerequisite: MAC 2311
MAC 2313	Calculus and Analytic Geometry 3	4	Prerequisite: MAC 2312
MAD 1100	Discrete Mathematics for Computer Science	3	Prerequisite: MAC1105
MAD 2104	Discrete Mathematics	3	Prerequisite: MAC 1106 or MAC1140
MAP 2302	Introduction to Differential Equations	3	Prerequisite: MAC 2312
MAS 2103	Elementary Linear Algebra	3	Prerequisite: MAC 2311
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in

			State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
MGF 1131	Mathematics in Context	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

GENERAL EDUCATION ELECTIVES (3.00 credits)

EEX 2000	Introduction to Special Education	3

COMPUTER COMPETENCY REQUIREMENT

Test type(s) needed:
Computer Skills Placement (CSP)
---OR---

CGS 1060C	Introduction to Computer Technology & Application

COMMON PREREQUISITES (3.00 credits)

EDF 1005	Introduction to the Education Profession	3

LOWER DIVISION ELECTIVES (21.00 credits)

Electives may include any appropriate transferrable (Credit Type 1 or 2) courses (Check with Advisor).

PROFESSIONAL EDUCATION CORE (15.00 credits)

EDF 4430	Measurement and Assessment in Education	3
EDG 3321	General Teaching Skills	3
EDG 3443	Classroom and Behavior Management	3
EEX 3071	Teaching Exceptional and Diverse Populations in Inclusive Settings	3
RED 3013	Foundations of Reading Instruction	3

DISCIPLINE CONTENT (33.00 credits)

EDG 4376	Integrated Language Arts and Social Sciences	3
EEX 3120	Language Development and Communication Disorders	3
EEX 4221	Assessment in Special Education	3
EEX 4833	Practicum in Special Education	3
EEX 4932	Advanced Topics in Exceptional Student Education	3
MAE 4360	Methods of Teaching Mathematics	3
RED 3393	Differentiated Instruction in Content Reading	3
RED 4519	Diagnosis and Instructional Intervention in Reading	3
SCE 4362	Methods of Teaching Science	3
TSL 3243	ESOL I: Second Language Acquisition, Communication, and Culture	3
TSL 4311	ESOL II: Teaching and Assessing ESOL Students	3

STUDENT TEACHING/INTERNSHIP (12.00 credits)

EEX 4930	Seminar in Special Education	3
EEX 4940	Internship in Special Education	9

Additional Information:

Students should check their individualized Degree Audit Report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami Dade College. This outline includes current graduation requirements.

Miami Dade College

Information Systems Technology – Networking Concentration
Bachelor of Science | Code: S9500 | 120 credits
CIP (1101101034)
Effective Term: Fall 2025 (2257)

The Bachelor of Science (BS) in Information Systems Technology (IST) degree program prepares students with essential skills and knowledge to effectively support the design, planning and management of information infrastructures and information resources within diverse organizational settings. The Networking Concentration focuses on how to plan, design, implement and maintain network infrastructures to keep organizations running smoothly. Students learn how to select technologies that best suit the client's needs. Students also acquire the technical skills needed to install, maintain, and extend multi-user computer systems and how to develop administrative policies and procedures.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS – 36 Credits Required			
Courses require a grade of "C" or higher to satisfy the general education requirement.			
Communications – 6 Credits Required			
ENC 1101	English Composition 1 (W)	3	Appropriate college placement
ENC 1102	English Composition 2 (W)	3	Pre-Req ENC 1101
Oral Communications – 3 Credits Required			
Select one course from the following:			
SPC 1017	Introduction to Communication (W)	3	
SPC 2608	Introduction to Public Speaking (W)	3	
Humanities – 6 Credits Required			
Select at least one course from the six State Core options.			
State Core (3 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature (W)	3	Pre-Req ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy (W)	3	
THE 2000	Theatre Appreciation (W)	3	
MDC Core (3 credits)			
ARC 2701	History of Architecture 1	3	
ARC 2702	History of Architecture 2 (W)	3	
ARH 1000	Art Appreciation	3	
ARH 2050	Art History 1	3	
ARH 2051	Art History 2 (W)	3	Pre-Req ARH 2050
ARH 2740	Cinema Appreciation (W)	3	
DAN 2100	Dance Appreciation	3	
DAN 2130	Dance History 1 (W)	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature (W)	3	Pre-Req ENC 1101
LIT 2120	A Survey of World Literature (W)	3	Pre-Req ENC 1101, 1102
MUH 2111	Survey of Music History 1	3	
MUH 2112	Survey of Music History 2 (W)	3	Pre-Req MUH 2111
MUL 1010	Music Appreciation	3	
MUL 2380	Jazz & Popular Music in America (W)	3	
PHI 2010	Introduction to Philosophy (W)	3	Pre-Req ENC 1101
PHI 2604	Critical Thinking/Ethics (W)	3	Pre-Req ENC 1101
THE 2000	Theatre Appreciation (W)	3	

Behavioral and Social Sciences – 6 Credits Required
Select at least one course from the six State Core options. To meet the Civic Literacy Competency Requirement for graduation one course selection should be AMH 2010 or AMH 2020 or POS 2041.

State Core (3 credits)

AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US Since 1877	3	
ANT 2000	Introduction to Anthropology	3	
ECO 2013	Principles of Economics (Macro) (W)	3	
POS 2041	American Federal Government	3	
PSY 2012	Introduction to Psychology	3	

MDC Core (3 credits)

AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US Since 1877	3	
ANT 2000	Introduction to Anthropology	3	
DEP2000	Human Growth and Development	3	
ECO 2013	Principles of Economics (Macro) (W)	3	
POS 2041	American Federal Government	3	
PSY 2012	Introduction to Psychology	3	
SYG 2000	Introduction to Sociology	3	
WOH 2012	History of World Civilization to 1789	3	
WOH 2022	History of World Civilization from 1789	3	

Natural Sciences - 6 Credits Required
Select at least one course from the thirteen State Core options.

State Core (3 credits)

AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
BSC 2010	Principles of Biology	3	Pre/Corequisites: CHM 1045, BSC 2010
BSC 2085	Human Anatomy and Physiology 1	3	Corequisite: BSC 2085L
CHM 1020	General Education Chemistry	3	
CHM 1045	General Chemistry and Qualitative Analysis	3	Prerequisite: CHM1025 or a passing score on the CART exam, MAC 1105; Co-requisite: CHM 1045L
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
PHY 2048	Physics with Calculus 1	3	
PHY 2053	Physics (without Calculus) 1	3	

MDC Core (3 credits)

AST 1002	Descriptive Astronomy	3	
BOT 1010	Botany	3	Corequisite: BOT 1010L
BSC 1005	General Education Biology	3	
BSC 1084	Functional Human Anatomy	3	
BSC 2010	Principles of Biology	3	Pre/Corequisites: CHM 1045, BSC 2010L
BSC 2020	Human Biology: Fund. of Anatomy & Physiology	3	
BSC 2085	Human Anatomy and Physiology 1	3	Corequisites: BSC 2085L
CHM1020	General Education Chemistry	3	
CHM1025	Introductory Chemistry	3	Prerequisite: MAT 1033
CHM1033	Chemistry for Health Sciences	3	Prerequisite: MAT 1033; Corequisite: CHM1033L
CHM1045	General Chemistry and Qualitative Analysis	3	Prerequisite: CHM1025 or a passing score on the CART exam, MAC 1105. Co-requisite: CHM 1045L

CHM1046	General Chemistry and Qualitative Analysis	3	Prerequisite: CHM1045 Corequisite: CHM1046L
CHM2200	Survey of Organic Chemistry	3	Prerequisite: CHM 1046 and CHM 1046L; Corequisite: CHM 2200L
CHM2210	Organic Chemistry 1	3	Prerequisite: CHM1046 and CHM 1046L; Corequisite: CHM2210L
CHM2211	Organic Chemistry 2	3	Prerequisite: CHM 2210 and CHM 2210L; Corequisite: CHM 2211L
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Sciences	3	
GLY 1010	Physical Geology	3	
GLY1100	Historical Geology	3	
HUN 1201	Essentials of Human Nutrition	3	
MET1010	Introduction to Weather	3	Pre/corequisite: PSC1515
OCB 1010	Introduction to Marine Biology	3	
OCE 1001	Introduction to Oceanography	3	
PCB 2033	Introduction to Ecology	3	Prerequisite: PSC 1515 or BSC 2011
PHY1004	Physics with Applications 1	3	Prerequisite: MAT 1033 with a grade of "C" or better; Corequisite: PHY1004L with a grade of "C" or better
PHY1020	General Education Physics	3	
PHY1025	Basic Physics	3	Prerequisite: MAC1105
PHY2048	Physics with Calculus 1	4	Prerequisites: High school physics or PHY 1025, PHY 2053 or departmental approval and MAC 2311; Corequisite: PHY 2048L
PHY2049	Physics with Calculus 2	4	Prerequisite: PHY 2048 and PHY 2048L; Corequisites: PHY 2049L and MAC 2312
PHY2053	Physics (without Calculus) 1	3	Prerequisite: MAC 1114 or MAC 1147; Corequisite PHY 2053L
PHY2054	Physics (without Calculus) 2	3	Prerequisite: PHY 2053; corequisite: PHY2054L
PSC 1121	General Education Physical Science	3	Prerequisite: MAT 1033
PSC 1515	Energy in the Natural Environment	3	

Mathematics – 6 Credits Required
Select at least one course from the four State Core options.

State Core (3 credits)

MAC 1105	College Algebra	3	Pre-Req: MAT 1033
MAC 2311	Calculus and Analytical Geometry 1	3	Pre-Req: MAC1106 and MAC1114, or MAC1140 and MAC 1114, or MAC 1147
MGF 1130	Mathematical Thinking	3	
STA 2023	Statistical Methods	3	Pre-Req: MAT1033 or MGF 1131

MDC Core (3 credits)

MAC 1105	College Algebra	3	Pre-Req MAT 1033
MAC 1106	Integrated College and Precalculus Algebra	5	Pre-Req: MAT1033
MAC 1114	Trigonometry	3	Pre-Req: MAC 1105 or MAC 1106
MAC 1140	Pre-Calculus Algebra	3	Pre-Req: MAC 1105
MAC 1147	Pre-Calculus Algebra and Trigonometry	5	Pre-Req: MAC1105
MAC 2233	Business Calculus	3	Pre-Req: MAC 1105 or MAC1106
MAC 2311	Calculus and Analytical Geometry 1	5	Pre-Req: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MAC 2312	Calculus and Analytical Geometry 2	4	Pre-Req: MAC 2311
MAC 2313	Calculus and Analytic Geometry 3	4	Pre-Req: MAC 2312
MAD 1100	Discrete Mathematics for Computer Science	3	Pre-Req: MAC1105
MAD 2104	Discrete Mathematics	3	Pre-Req: MAC 1106 or MAC1140
MAP 2302	Introduction to Differential Equations	3	Pre-Req: MAC 2312
MAS 2103	Elementary Linear Algebra	3	Pre-Req: MAC 2311

MGF 1130	Mathematical Thinking	3	Pre-Req: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
MGF 1131	Mathematics in Context	3	Pre-Req: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
QMB 2100	Basic Business Statistics	3	
STA 2023	Statistical Methods	3	Pre-Req: MAT 1033 or MGF 1131

General Education Elective – 3 Credits Required
Choose one course from the following options. These courses also fulfill program prerequisites.

ECO 2013	Principles of Economics (Macro) (W)	3	
ECO 2023	Principles of Economics (Micro)	3	Pre-Req MAT 1033

Computer Competency Requirement
The following course fulfills MDC's computer competency requirement and a program prerequisite:

CGS 1060C	Introduction to Computer Technology & Applications	4	

Foreign Language Competency Requirement
Students must fulfill this requirement via three options:
Option A: Successful completion of two (2) credits (i.e., the equivalent of two years) in one (1) foreign language at the secondary (high school) level.
---**OR---**
Option B: Successful completion of the following courses at the elementary 2 level: ASL1150C, CHI1121, FRE1121, GER1121, ITA1121, JPN1121, POR1121, RUS1121, SPN1121. These credits count towards the Lower Division Requirements area.
---**OR---**
Option C: Students may demonstrate completion of the elementary 2 level through standardized examination that document the required foreign language competency.

LOWER DIVISION REQUIREMENTS – 24 Credits Required

Group A: 12 credits

CGS 1060C	Introduction to Computer Technology & Applications	4	
CGS 1540C	Database Concepts and Design	4	
COP 1334	Introduction to C++ Programming	4	Pre/Co CGS 1060C

Group B: 4 credits

CTS 1134	Networking Technologies	4	
CTS 1650	CCNA: Cisco Fundamentals	4	

Group C: 8 credits
Any transferrable type-1 or type-2 courses. Please see academic advisor for support with course selection, including program prerequisites.

UPPER DIVISION REQUIREMENTS – 36 Credits Required

Professional Core – 12 Credits Required

CGS 3763	Operating System Principles	4	Pre COP 1334
CIS 3360	Principles of Information Security	4	Pre CTS 1134 or CTS 1650
CIS 3510	IT Project Management	4	

Discipline Content Core – 24 Credits Required

CIS 4347	Information Storage Management	4	Pre CGS 1540C
CNT 3409C	Network Security	4	Pre CIS 3360
CNT 3526C	Wireless and Mobile Networking	4	Pre CTS 1134 or CTS 1650

CNT 4603	System Administration and Maintenance	4	Pre CTS 1134 or CTS 1650
CNT 4702	Network Design and Planning	4	Pre CIS 3360
CTS 4955	Networking Capstone	4	Department Permission Required

PROGRAM ELECTIVES – 24 Credits Required

Group A: 8 credits
CAP *, CEN *, CET *, CGS *, CIS *, CNT *, COP *, CTS *

Group B: 16 credits
CAP 2*, CAP 3*, CAP 4*, CEN 2*, CEN 3*, CEN 4*, CGS 2*, CGS 3*, CGS 4*, CIS 2*, CIS 3*, CIS 4*, CNT 2*, CNT 3*, CNT 4*, COP 2*, COP 3*, COP 4*, CTS 2*, CTS 3*, CTS 4*, CET 2*, CET 3*, CET 4*, MAC 2333

TOTAL CREDITS

General Education Requirements		36 credits
Lower Division/Common Prerequisite Requirements		24 credits
Upper Division Requirements		36 credits
Electives	24 credits	
Total	**120 credits**	

IMPORTANT INFORMATION
Civic Literacy Competency: Associate in arts or baccalaureate degree students entering a Florida College System (FCS) or State University System (SUS) institution in the 2021-2022 academic school year and thereafter and Associate in Science degree students entering a Florida College System (FCS) or State University System (SUS) institution in the 2022-2023 academic school year and thereafter must demonstrate competency through successful completion of a civic literacy course (AMH 2010 or AMH 2020 or POS 2041) AND by achieving a passing score on the Florida Civic Literacy Examination (FCLE). First-time-in-college students who entered between Fall 2018 and Summer 2021 will continue to have the option of passing a course or an approved assessment. For more information regarding the Florida Civic Literacy Requirement, go to Civic Literacy Competency.

Foreign Language: Students admitted to the baccalaureate degree program without meeting the foreign language admission requirement of at least 2 courses (8-10 credit hours) of sequential foreign language at the secondary level or the equivalent of such instruction at the postsecondary level must earn such credits prior to graduation.

Computer Competency: By the 16th earned college-level credit, students must attempt the computer competency requirement OR by the 31st earned college-level credit, students must satisfy the requirement (CGS1060C, an equivalent college credit course or the College's approved computer competency test). For more information, see Computer Competency.

Required Credit Hours and GPA: The baccalaureate requires student to earn a minimum of 120 unduplicated credit hours with a minimum cumulative grade point average of 2.0. All general education and all upper division requirements must be passed with the grade of "C" or better.

Pursuing or Have Earned an Associate's Degree: Students entering with an AS or AAS degree may have more than 24 elective credits and may need additional General Education credits to meet the 36 General Education credits required for the baccalaureate degree. Students entering with an AA degree may need additional electives to provide appropriate background for the baccalaureate program.

Graduation Requirements: Students should review their individualized Degree Audit Report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami Dade College. Students are highly encouraged to meet with their academic advisor on a regular basis and review the College Catalog to learn about all graduation requirements. The final responsibility for meeting graduation requirements rests with the student.

Miami Dade College

Information Systems Technology – Software Engineering Concentration
Bachelor of Science | Code: S9501 | 120 credits
CIP (1101101034**)**
Effective Term: Fall 2025 (2257)

The Bachelor of Science (BS) in Information Systems Technology (IST) degree program prepares students with essential skills and knowledge to effectively support the design, planning and management of information infrastructures and information resources within diverse organizational settings. The Software Engineering concentration focuses on designing and creating software. Students learn how to specify software requirements from clients and how to design, implement and validate software solutions for real-world problems.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS – 36 Credits Required			
Courses require a grade of "C" or higher to satisfy the general education requirement.			
Communications – 6 Credits Required			
ENC 1101	English Composition 1 (W)	3	Appropriate college placement
ENC 1102	English Composition 2 (W)	3	Pre-Req ENC 1101
Oral Communications – 3 Credits Required			
Select one course from the following:			
SPC 1017	Introduction to Communication (W)	3	
SPC 2608	Introduction to Public Speaking (W)	3	
Humanities – 6 Credits Required			
Select at least one course from the six State Core options.			
State Core (3 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature (W)	3	Pre-Req ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy (W)	3	Pre-Req ENC 1101
THE 2000	Theatre Appreciation (W)	3	
MDC Core (3 credits)			
ARC 2701	History of Architecture 1	3	
ARC 2702	History of Architecture 2 (W)	3	
ARH 1000	Art Appreciation	3	
ARH 2050	Art History 1	3	
ARH 2051	Art History 2 (W)	3	Pre-Req ARH 2050
ARH 2740	Cinema Appreciation (W)	3	
DAN 2100	Dance Appreciation	3	
DAN 2130	Dance History 1 (W)	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature (W)	3	Pre-Req ENC 1101
LIT 2120	A Survey of World Literature (W)	3	Pre-Req ENC 1101, 1102
MUH 2111	Survey of Music History 1	3	
MUH 2112	Survey of Music History 2 (W)	3	Pre-Req MUH 2111
MUL 1010	Music Appreciation	3	
MUL 2380	Jazz & Popular Music in America (W)	3	
PHI 2010	Introduction to Philosophy (W)	3	Pre-Req ENC 1101
PHI 2604	Critical Thinking/Ethics (W)	3	Pre-Req ENC 1101
THE 2000	Theatre Appreciation (W)	3	

Behavioral and Social Sciences – 6 Credits Required
Select at least one course from the six State Core options. To meet the Civic Literacy Competency Requirement for graduation one course selection should be AMH 2010 or AMH 2020 or POS 2041.

State Core (3 credits)

AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US Since 1877	3	
ANT 2000	Introduction to Anthropology	3	
ECO 2013	Principles of Economics (Macro) (W)	3	
POS 2041	American Federal Government	3	
PSY 2012	Introduction to Psychology		

MDC Core (3 credits)

AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US Since 1877	3	
ANT 2000	Introduction to Anthropology	3	
DEP2000	Human Growth and Development	3	
ECO 2013	Principles of Economics (Macro) (W)	3	
POS 2041	American Federal Government	3	
PSY 2012	Introduction to Psychology	3	
SYG 2000	Introduction to Sociology	3	
WOH 2012	History of World Civilization to 1789	3	
WOH 2022	History of World Civilization from 1789	3	

Natural Sciences - 6 Credits Required
Select at least one course from the thirteen State Core options. Laboratory courses do not fulfill this area's requirements.

State Core (3 credits)

AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
BSC 2010	Principles of Biology	3	Pre/Corequisites: CHM 1045, BSC 2010
BSC 2085	Human Anatomy and Physiology 1	3	Corequisite: BSC 2085L
CHM 1020	General Education Chemistry	3	
CHM 1045	General Chemistry and Qualitative Analysis	3	Prerequisite: CHM1025 or a passing score on the CART exam, MAC 1105; Co-requisite: CHM 1045L
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
PHY 2048	Physics with Calculus 1	3	
PHY 2053	Physics (without Calculus) 1	3	

MDC Core (3 credits)

AST 1002	Descriptive Astronomy	3	
BOT 1010	Botany	3	Corequisite: BOT 1010L
BSC 1005	General Education Biology	3	
BSC 1084	Functional Human Anatomy	3	
BSC 2010	Principles of Biology	3	Pre/Corequisites: CHM 1045, BSC 2010L
BSC 2020	Human Biology: Fund. of Anatomy & Physiology	3	
BSC 2085	Human Anatomy and Physiology 1	3	Corequisites: BSC 2085L
CHM1020	General Education Chemistry	3	
CHM1025	Introductory Chemistry	3	Prerequisite: MAT 1033
CHM1033	Chemistry for Health Sciences	3	Prerequisite: MAT 1033; Corequisite: CHM1033L
CHM1045	General Chemistry and Qualitative Analysis	3	Prerequisite: CHM1025 or a passing score on the CART exam, MAC 1105. Co-requisite: CHM 1045L
CHM1046	General Chemistry and Qualitative Analysis	3	Prerequisite: CHM1045 Corequisite: CHM1046L

CHM2200	Survey of Organic Chemistry	3	Prerequisite: CHM 1046 and CHM 1046L; Corequisite: CHM 2200L
CHM2210	Organic Chemistry 1	3	Prerequisite: CHM1046 and CHM 1046L; Corequisite: CHM2210L
CHM2211	Organic Chemistry 2	3	Prerequisite: CHM 2210 and CHM 2210L; Corequisite: CHM 2211L
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Sciences	3	
GLY 1010	Physical Geology	3	
GLY1100	Historical Geology	3	
HUN 1201	Essentials of Human Nutrition	3	
MET1010	Introduction to Weather	3	Pre/corequisite: PSC1515
OCB 1010	Introduction to Marine Biology	3	
OCE 1001	Introduction to Oceanography	3	
PCB 2033	Introduction to Ecology	3	Prerequisite: PSC 1515 or BSC 2011
PHY1004	Physics with Applications 1	3	Prerequisite: MAT 1033 with a grade of "C" or better; Corequisite: PHY1004L with a grade of "C" or better
PHY1020	General Education Physics	3	
PHY1025	Basic Physics	3	Prerequisite: MAC1105
PHY2048	Physics with Calculus 1	4	Prerequisites: High school physics or PHY 1025, PHY 2053 or departmental approval and MAC 2311; Corequisite: PHY 2048L
PHY2049	Physics with Calculus 2	4	Prerequisite: PHY 2048 and PHY 2048L; Corequisites: PHY 2049L and MAC 2312
PHY2053	Physics (without Calculus) 1	3	Prerequisite: MAC 1114 or MAC 1147; Corequisite PHY 2053L
PHY2054	Physics (without Calculus) 2	3	Prerequisite: PHY 2053; corequisite: PHY2054L
PSC 1121	General Education Physical Science	3	Prerequisite: MAT 1033
PSC 1515	Energy in the Natural Environment	3	

Mathematics – 6 Credits Required
Select at least one course from the State Core options.

State Core (3 credits)

MAC 1105	College Algebra	3	Pre-Req: MAT 1033
MAC 2311	Calculus and Analytical Geometry 1	3	Pre-Req: MAC1106 and MAC1114, or MAC1140 and MAC 1114, or MAC 1147
MGF 1130	Mathematical Thinking	3	
STA 2023	Statistical Methods	3	Pre-Req: MAT1033 or MGF 1131

MDC Core (3 credits)

MAC 1105	College Algebra	3	Pre-Req MAT 1033
MAC 1106	Integrated College and Precalculus Algebra	5	Pre-Req: MAT1033
MAC 1114	Trigonometry	3	Pre-Req: MAC 1105 or MAC 1106
MAC 1140	Pre-Calculus Algebra	3	Pre-Req: MAC 1105
MAC 1147	Pre-Calculus Algebra and Trigonometry	5	Pre-Req: MAC1105
MAC 2233	Business Calculus	3	Pre-Req: MAC 1105 or MAC1106
MAC 2311	Calculus and Analytical Geometry 1	5	Pre-Req: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MAC 2312	Calculus and Analytical Geometry 2	4	Pre-Req: MAC 2311
MAC 2313	Calculus and Analytic Geometry 3	4	Pre-Req: MAC 2312
MAD 1100	Discrete Mathematics for Computer Science	3	Pre-Req: MAC1105
MAD 2104	Discrete Mathematics	3	Pre-Req: MAC 1106 or MAC1140
MAP 2302	Introduction to Differential Equations	3	Pre-Req: MAC 2312
MAS 2103	Elementary Linear Algebra	3	Pre-Req: MAC 2311
MGF 1130	Mathematical Thinking	3	Pre-Req: Student must meet the Developmental Education

			mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
MGF 1131	Mathematics in Context	3	Pre-Req: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
QMB 2100	Basic Business Statistics	3	
STA 2023	Statistical Methods	3	Pre-Req: MAT 1033 or MGF 1131

General Education Elective – 3 Credits Required
Choose one course from the following options. These courses also fulfill program prerequisites.

ECO 2013	Principles of Economics (Macro) (W)	3	
ECO 2023	Principles of Economics (Micro)	3	Pre-Req MAT 1033

Computer Competency Requirement
The following course fulfills MDC's computer competency requirement and a program prerequisite:

CGS 1060C	Introduction to Computer Technology & Applications	4	

Foreign Language Competency Requirement
Students must fulfill this requirement via three options:
Option A: Successful completion of two (2) credits (i.e., the equivalent of two years) in one (1) foreign language at the secondary (high school) level.
---**OR---**
Option B: Successful completion of the following courses at the elementary 2 level: ASL1150C, CHI1121, FRE1121, GER1121, ITA1121, JPN1121, POR1121, RUS1121, SPN1121. These credits count towards the Lower Division Requirements area.
---**OR---**
Option C: Students may demonstrate completion of the elementary 2 level through standardized examination that document the required foreign language competency.

LOWER DIVISION REQUIREMENTS – 24 Credits Required
Group A: 16 credits

CGS 1060C	Introduction to Computer Technology & Applications	4	
CGS 1540C	Database Concepts and Design	4	
COP 1334	Introduction to C++ Programming	4	Pre/Co CGS 1060C
COP 2800	Java Programming	4	Pre-req COP 1334 or COP 2270

Group B: 4 credits
Select one course from the following offerings:

CTS 1134	Networking Technologies	4	
CTS 1650	CCNA: Cisco Fundamentals	4	

Group C: 4 credits
Select one course from the following offerings:

MAD 1100	Discrete Mathematics for Computer Science	3	Pre-req MAC 1105
MAD 2104	Discrete Mathematics	3	Pre-req MAC 1106, MAC1140, or MAC 1147

AND
Any transferrable type-1 or type-2 courses. Please see academic advisor for support with course selection, including program prerequisites.

UPPER DIVISION REQUIREMENTS – 36 Credits Required
Professional Core – 12 Credits Required

CGS 3763	Operating System Principles	4	Pre COP 1334
CIS 3360	Principles of Information Security	4	Pre CTS 1134 or CTS 1650
CIS 3510	IT Project Management	4	

Discipline Content Core – 24 Credits Required

CET 3126C	Computer Architecture	4	

CET 3383C	Software Engineering I	4	Pre COP 2800
CEN 4025C	Software Engineering II	4	Pre CET 3383C
CEN 4090C	Software Engineering Capstone	4	Department Permission Required
COP 3530	Data Structures	4	Pre COP 2800
COT 4400	Design and Analysis of Algorithms	4	Pre COP 2800 and Co COP 3530

PROGRAM ELECTIVES – 24 Credits Required
Group A: 8 credits
CAP *, CEN *, CET *, CGS *, CIS *, CNT *, COP *, CTS *

Group B: 16 credits
CAP 2*, CAP 3*, CAP 4*, CEN 2*, CEN 3*, CEN 4*, CGS 2*, CGS 3*, CGS 4*, CIS 2*, CIS 3*, CIS 4*, CNT 2*, CNT 3*, CNT 4*, COP 2*, COP 3*, COP 4*, CTS 2*, CTS 3*, CTS 4*, CET 2*, CET 3*, CET 4*, MAC 2333

TOTAL CREDITS

General Education Requirements		36 credits
Lower Division/Common Prerequisite Requirements		24 credits
Upper Division Requirements		36 credits
Electives	24 credits	
Total	**120 credits**	

IMPORTANT INFORMATION
Civic Literacy Competency: Associate in arts or baccalaureate degree students entering a Florida College System (FCS) or State University System (SUS) institution in the 2021-2022 academic school year and thereafter and Associate in Science degree students entering a Florida College System (FCS) or State University System (SUS) institution in the 2022-2023 academic school year and thereafter must demonstrate competency through successful completion of a civic literacy course (AMH 2010 or AMH 2020 or POS 2041) AND by achieving a passing score on the Florida Civic Literacy Examination (FCLE). First-time-in-college students who entered between Fall 2018 and Summer 2021 will continue to have the option of passing a course or an approved assessment. For more information regarding the Florida Civic Literacy Requirement, go to Civic Literacy Competency.

Foreign Language: Students admitted to the baccalaureate degree program without meeting the foreign language admission requirement of at least 2 courses (8-10 credit hours) of sequential foreign language at the secondary level or the equivalent of such instruction at the postsecondary level must earn such credits prior to graduation.

Computer Competency: By the 16th earned college-level credit, students must attempt the computer competency requirement OR by the 31st earned college-level credit, students must satisfy the requirement (CGS1060C, an equivalent college credit course or the College's approved computer competency test). For more information, see Computer Competency.

Required Credit Hours and GPA: The baccalaureate requires student to earn a minimum of 120 unduplicated credit hours with a minimum cumulative grade point average of 2.0. All general education and all upper division requirements must be passed with the grade of "C" or better.

Pursuing or Have Earned an Associate's Degree: Students entering with an AS or AAS degree may have more than 24 elective credits and may need additional General Education credits to meet the 36 General Education credits required for the baccalaureate degree. Students entering with an AA degree may need additional electives to provide appropriate background for the baccalaureate program.

Graduation Requirements: Students should review their individualized Degree Audit Report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami Dade College. Students are highly encouraged to meet with their academic advisor on a regular basis and review the College Catalog to learn about all graduation requirements. The final responsibility for meeting graduation requirements rests with the student.

Miami Dade College

Nursing
Bachelor of Science | Code: N9100| 125 credits
CIP (1105138012**)**
Effective Term: Fall Term 2025 (2257)

The Bachelor of Science in Nursing (BSN) is designed for licensed RNs with an A.S. degree in Nursing from regionally accredited programs who wish to attain the next level of education in order to provide professional nursing care in all clinical practice settings around the world, or to be eligible for advanced nursing leadership, management, staff education and practice positions, in a multicultural society.

Course	Course Title	Credits	Pre-/Co-Requisites

GENERAL EDUCATION REQUIREMENTS (36.00 credits)
Courses require a grade of "C" or higher to satisfy the general education requirement.

1. COMMUNICATIONS (6.00 credits)

ENC 1101	English Composition 1	3
ENC 1102	English Composition 2	3

2. ORAL COMMUNICATIONS (3.00 credits)
Select one course from the following:

ENC 2300	Advanced Composition and Communication	3
SPC 1017	Introduction to Communication	3
SPC 2608	Introduction to Public Speaking	3

3. HUMANITIES (6.00 credits)
Select at least one course from the six State Core options.
State Core 3 credits

ARH 1000	Art Appreciation	3
HUM 1020	Humanities	3
LIT 2000	Introduction to Literature	3
MUL 1010	Music Appreciation	3
PHI 2010	Introduction to Philosophy	3
THE 2000	Theater Appreciation	3

MDC Core 3 credits

ARC 2702	History of Architecture 2	3
ARH 2051	Art History 2	3
ARH 2740	Cinema Appreciation	3
DAN 2130	Dance History 1	3
LIT 2120	A Survey of World Literature 2	3
MUH 2112	Survey of Music History 2	3
MUL 2380	Jazz and Popular Music in America	3
PHI 2010	Introduction to Philosophy	3
THE 2000	Theatre Appreciation	3

4. SOCIAL SCIENCES (6.00 credits)
Select at least one course from the State Core options. To meet the Civic Literacy Competency Requirement for graduation one course selection should be AMH 2010 or AMH 2020 or POS 2041.

State Core 3 credits

AMH 2010	History of the US to 1877	3
AMH 2020	History of the US Since 1877	3
POS 2041	American Federal Government	3

MDC Core 3 credits

DEP 2000	Human Growth and Development	3
PSY 2012	Introduction to Psychology	3

5. NATURAL SCIENCES (6.00 credits)
Laboratory courses do not fulfill this area's requirements.

HUN 1201	Essentials of Human Nutrition	3
CHM 1033	Chemistry for Health Sciences	3

6. MATHEMATICS (6.00 credits)
Select one course from the State Core options. Laboratory courses do not fulfill this area's requirements.

State Core 3 credits

STA 2023	Statistical Methods	3

MDC Core 3 credits

MAC 1105	College Algebra	3
MAC 1106	Integrated College and Precalculus Algebra	5
MAC 1114	Trigonometry	3
MAC 1140	Pre-Calculus Algebra	3
MAC 1147	Pre-Calculus Algebra and Trigonometry	5
MAC 2233	Business Calculus	3
MAC 2311	Calculus and Analytical Geometry 1	5
MAC 2312	Calculus and Analytical Geometry 2	4
MAC 2313	Calculus and Analytic Geometry 3	4
MAD 2104	Discrete Mathematics	3
MAP 2302	Introduction to Differential Equations	3
MAS 2103	Elementary Linear Algebra	3
MGF 1130	Mathematical Thinking	3
MGF 1131	Mathematics in Context	3
MTG 2204	Geometry for Educators	3
QMB 2100	Basic Business Statistics	3

7. GENERAL EDUCATION ELECTIVE (3.00 creditsAMH2010

AMH2020	BSC2011	CHM2211L	GLY1010L	MAS2103	POR1120
AMH2035	BSC2011L	CLP2000	GLY1100	MCB2010	POR1121
AML2010	BSC2020	CRW2001	HLP1081	MCB2010L	POS2041
AML2020	BSC2085	CRW2002	HUM1020	MET1010	POS2112
ANT2000	BSC2085L	DAN2100	HUN1201	MGF1130	PSC1121
ARC2701	BSC2086	DAN2130	INR2002	MGF1131	PSC1515
ARC2702	BSC2086L	DAN2131	ITA1120	MUH2111	PSY2012
ARH1000	BSC2426	DEP2000	ITA1121	MUH2112	QMB2100
ARH2050	BSC2426L	DEP2100	JPN1120	MUL1010	REL1210
ARH2051	BSC2427	ECO2013	JPN1121	MUL2380	REL1240
ARH2740	BSC2427L	ECO2023	LAH2021	OCB1010	RUS1120
ASL1140C	CHI1120	ECO2301	LIT2000	OCE1001	RUS1121
ASL1150C	CHI1121	EDF1005	LIT2090	PHI1100	SOP2002
ASL2210	CHM1020	ENC1101	LIT2120	PHI2010	SPC1017
ASL2220	CHM1025	ENC1102	MAC1105	PHI2600	SPC2601
ASL2400	CHM1025L	ENC2300	MAC1105L	PHY1004	SPC2608
ASL2430	CHM1033	ENG2012	MAC1106	PHY1004L	SPN1120
ASL2510	CHM1033L	ENL2012	MAC1114	PHY1020	SPN1121
AST1002	CHM1045	ENL2022	MAC1140	PHY1025	STA2023
BOT1010	CHM1045L	ESC1000	MAC1147	PHY2048	SYG2000
BOT1010L	CHM1046	EUH2032	MAC2233	PHY2048L	THE2000
BOT2150C	CHM1046L	EVR1001	MAC2311	PHY2049	WOH2012
BSC1005	CHM2200	FRE1120	MAC2312	PHY2049L	WOH2022
BSC1005L	CHM2200L	FRE1121	MAC2313	PHY2053	
BSC1084	CHM2210	GER1120	MAD1100	PHY2053L	
BSC2010	CHM2210L	GER1121	MAD2104	PHY2054	
BSC2010L	CHM2211	GLY1010	MAP2302	PHY2054L	

8. COMPUTER COMPETENCY
Test type(s) needed:
Computer Skills Placement (CSP)
---OR---
CGS 1060C Introduction to Computer Technology & Application

9. COMMON PRE-REQUISITES (19.00 credits)

Must take 1.0 credits from the following group.

MCB 2010L	Microbiology Laboratory	2

---AND---

Must take 18.0 credits from the following group.

BSC 2085	Human Anatomy and Physiology 1	3
BSC 2085L	Human Anatomy and Physiology 1 Laboratory	1
BSC 2086	Human Anatomy & Physiology 2	3
BSC 2086L	Human Anatomy & Physiology 2 Laboratory	1
CHM 1033L	Chemistry for Health Sciences lab	1
DEP 2000	Human Growth and Development	3
MCB 2010	Microbiology	3
SYG 2000	Introduction to Sociology	3

10. NURSING CORE COURSES

NUR 1025	Fundamentals of Nursing	3
NUR 1025C	Fundamentals of Nursing Skills Lab	2
NUR 1025L	Fundamentals of Nursing Clinical Lab	2
NUR 1060C	Adult Health Assessment	2
NUR 1141	Nursing Math & Pharmacology	2
NUR 1142	Introduction to Nursing Math & Pharmacology	1
NUR 1211	Medical-Surgical Nursing	4
NUR 1211L	Medical Surgical Nursing Clinical Lab	4
NUR 1214C	Medical Surgical Nursing Skills Lab	1
NUR 2212	Advanced Medical-Surgical Nursing	3
NUR 2212L	Advanced Medical-Surgical Nursing Clinical	3
NUR 2310	Pediatric Nursing	2
NUR 2310L	Pediatric Nursing Clinical Lab	1
NUR 2420	Obstetrical Nursing	2
NUR 2420L	Obstetrical Nursing Clinical Lab	1
NUR 2520	Psychiatric Nursing	2
NUR 2520L	Psychiatric Nursing Clinical Lab	2
NUR 2680L	Community Health Nursing Lab	1
NUR 2811C	Professional Nursing Leadership	4
NUR 9995	Nursing	10

11. VALIDATED NURSING CORE COURSES (30.00 credits)

NUR 3997	Validated Nursing Course	30

12. DISCIPLINE CONTENT (30.00 credits)

NUR 3125	Pathophysiology in Nursing Practice	3
NUR 3069	Health Assessment Across the Lifespan	3
NUR 3165	Nursing Research	3
NUR 3805	Foundations and Role Transitions of the Professional Nurse	3
NUR 4146	Pharmacology for Nursing	3
NUR 4636	Community Health Nursing	3
NUR 4636L	Community Health Nursing Practicum	3
NUR 4667	Culture and Global Health in Nursing	3
NUR 4827	Leadership and Management Theory	3
NUR 4945C	Advanced Concepts Practicum	3

13. REQUIRED ELECTIVES (10.00 credits)

Must take 7.0 credits from the following group.

BSC1*	CHM1*	FRW2*	ITA1*	PHY1*
BSC2*	CHM2*	GER1*	ITA2*	PHY2*
CGS 1060C	FRE1*	GER2*	JPN1*	SPN1*
CHI1*	FRE2*	HBR1*	JPN2*	SPN2*

MCB 2010L	Microbiology Laboratory	2
NUR 1002	Transition to Professional Nursing	6
NUR 1002L	Transition to Professional Nursing Laboratory	4

---AND---

Must take 3.0 credits from the following group.

BCH3*	BSC4*	CHM3*	CHM4*	PHY3*	PHY4*

BSC 2085	Human Anatomy and Physiology 1	3
BSC 2085L	Human Anatomy and Physiology 1 Laboratory	1
BSC 2086	Human Anatomy & Physiology 2	3
BSC 2086L	Human Anatomy & Physiology 2 Laboratory	1
CHM 1033	Chemistry for Health Sciences	3
CHM 1033L	Chemistry for Health Sciences lab	1
DEP 2000	Human Growth and Development	3
HUN 1201	Essentials of Human Nutrition	3
MCB 2010	Microbiology	3
NSP 3685	End-of-Life Nursing Care	3
NUR 3178	Complementary and Alternative Health Care	3
NUR 3289	Foundations of Gerontology	3
NUR 3674	Faith Based Community Nursing	3
NUR 3930	Selected Studies	3
PSY 2012	Introduction to Psychology	3
STA 2023	Statistical Methods	3
SYG 2000	Introduction to Sociology	3

The following course(s) are not allowed for credit in this area.

BSC 2085	BSC 2086	CHM 1033	DEP 2000	MCB 2010	STA 2023
BSC 2085L	BSC 2086L	CHM 1033L	HUN 1201	PSY 2012	SYG 2000

* End of Program Sheet *

Miami Dade College

Secondary Mathematics Education
Bachelor of Science | Code: S9250 | 120 credits
CIP (1101313111**)**
Effective Term: Fall Term 2025 (2257)

Upon completion of the Bachelor of Science Degree with a major in Early Childhood Education program, the student will be eligible to obtain a Florida Educator Certification in Pre-school (Birth to Age 4) and Pre-Kindergarten/ Primary (Age 3 to Grade 3) with endorsements in English for Speakers of Other Languages (ESOL), Reading, and Pre-Kindergarten Disabilities.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (36 Credits)			
Courses require a grade of "C" or higher to satisfy the general education requirement.			
1. COMMUNICATIONS (6.00 credits)			
ENC 1101	English Composition 1	3	
ENC 1102	English Composition 2	3	
2. ORAL COMMUNICATIONS (3.00 credits)			
Select one course from the following:			
ENC 2300	Advanced Composition & Communications (W)	3	Prerequisite: ENC 1101, 1102
SPC 1017	Introduction to Communication	3	
SPC 2608	Introduction to Public Speaking	3	
3. HUMANITIES (6.00 credits)			
Select at least one course from the six State Core options.			
State Core: 3 credits			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MDC Core: 3 credits			
ARC 2701	History of Architecture 1	3	
ARC 2702	History of Architecture 2	3	
ARH 1000	Art Appreciation	3	
ARH 2050	Art History 1	3	
ARH 2051	Art History 2	3	Prerequisite: ARH 2050
ARH 2740	Cinema Appreciation	3	Prerequisite: HUM 1020
DAN 2100	Dance Appreciation	3	
DAN 2130	Dance History 1	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
LIT 2120	A Survey of World Literature	3	Prerequisites: ENC 1101, ENC 1102 or equivalent
MUH 2111	Survey of Music History 1	3	
MUH 2112	Survey of Music History 2	3	Prerequisite: MUH 2111
MUL 1010	Music Appreciation	3	
MUL 2380	Jazz and Popular Music in America	3	
PHI 2010	Introduction to Philosophy	3	
PHI 2600	Introduction to Ethics	3	
THE 2000	Theater Appreciation	3	
4. SOCIAL SCIENCES (6.00 credits)			
Select at least one course from the State Core options. To meet the Civic Literacy Competency Requirement for graduation one course selection should be AMH 2010 or AMH 2020 or POS 2041.			

State Core: 3 credits

AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US Since 1877	3	
POS 2041	American Federal Government	3	

MDC Core: 3 credits

DEP 2000	Human Growth and Development	3	
PSY 2012	Introduction to Psychology	3	

5.NATURAL SCIENCES (6.00 credits)

Select at least one course from the thirteen State Core options.

State Core: 3 credits

AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
BSC 2010	Principles of Biology	3	Pre/Corequisites: BSC 2010L, CHM 1045
BSC 2085	Human Anatomy and Physiology 1	3	Corequisite: BSC 2085L
CHM 1020	General Education Chemistry	3	
CHM 1045	General Chemistry & Qualitative Analysis	3	Prerequisite: CHM 1025 or a passing score on the CART exam, MAC 1105; Corequisite: CHM 1045L
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
PHY 2048	Physics with Calculus 1	3	Prerequisites: High school physics or PHY 1025, PHY 2053 or Departmental Approval and MAC 2311; Corequisite: PHY 2048L
PHY 2053	Physics without Calculus 1	3	Prerequisite: MAC 1114 or MAC 1147; Corequisite PHY 2053L

MDC Core: 3 credits

AST 1002	Descriptive Astronomy	3	
BOT 1010	Botany	3	Corequisite: BOT 1010L
BSC 1005	General Education Biology	3	
BSC 1084	Functional Human Anatomy	3	
BSC 2010	Principles of Biology	3	Pre/Corequisites: BSC 2010L, CHM 1045
BSC 2020	Human Biology: Fundamentals of Anatomy/ Physiology	3	
BSC 2085	Human Anatomy and Physiology 1	3	Corequisite: BSC 2085L
CHM1020	General Education Chemistry	3	
CHM1025	Introductory Chemistry	3	Prerequisite: MAT 1033
CHM1033	Chemistry for Health Sciences	3	Prerequisite: MAT 1033; Corequisite: CHM1033L
CHM1045	General Chemistry and Qualitative Analysis	3	Prerequisite: CHM1025 or a passing score on the CART exam, MAC 1105. Co-requisite: CHM 1045L
CHM1046	General Chemistry and Qualitative Analysis	3	Prerequisite: CHM1045 Corequisite: CHM1046L
CHM2200	Survey of Organic Chemistry	3	Prerequisite: CHM 1046 and CHM 1046L; Corequisite: CHM 2200L
CHM2210	Organic Chemistry 1	3	Prerequisite: CHM1046 and CHM 1046L; Corequisite: CHM2210L
CHM2211	Organic Chemistry 2	3	Prerequisite: CHM 2210 and CHM 2210L; Corequisite: CHM 2211L
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
GLY1100	Historical Geology	3	

HUN 1201	Essentials of Human Nutrition	3	
MET1010	Introduction to Weather	3	Pre/corequisite: PSC1515
OCB 1010	Introduction to Marine Biology	3	
OCE 1001	Introduction to Oceanography	3	
PHY1004	Physics with Applications 1	3	Prerequisite: MAT 1033 with a grade of "C" or better; Corequisite: PHY1004L with a grade of "C" or better
PHY1020	General Education Physics	3	
PHY1025	Basic Physics	3	Prerequisite: MAC1105
PHY2048	Physics with Calculus 1	4	Prerequisites: High school physics or PHY 1025, PHY 2053 or departmental approval and MAC 2311; Corequisite: PHY 2048L
PHY2049	Physics with Calculus 2	4	Prerequisite: PHY 2048 and PHY 2048L; Corequisites: PHY 2049L and MAC 2312
PHY2053	Physics (without Calculus) 1	3	Prerequisite: MAC 1114 or MAC 1147; Corequisite PHY 2053L
PHY2054	Physics (without Calculus) 2	3	Prerequisite: PHY 2053; corequisite: PHY 2054L
PSC 1121	General Education Physical Science	3	Prerequisite: MAT 1033
PSC 1515	Energy in the Natural Environment	3	

6.MATHEMATICS (6.00 credits)
Select at least one course from the State Core options. Laboratory courses do not fulfill this area's requirements.

State Core: 3 credits

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MGF 1130	Mathematical Thinking	3	Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

MDC Core: 3 credits

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 1106	Integrated College and Precalculus Algebra	5	Prerequisite: MAT1033
MAC 1114	Trigonometry	3	Prerequisite: MAC 1105 or MAC 1106
MAC 1140	Pre-Calculus Algebra	3	Prerequisite: MAC 1105
MAC 1147	Pre-Calculus Algebra and Trigonometry	5	Prerequisite: MAC1105
MAC 2233	Business Calculus	3	Prerequisite: MAC 1105 or MAC1106
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MAC 2312	Calculus and Analytical Geometry 2	4	Prerequisite: MAC 2311
MAC 2313	Calculus and Analytic Geometry 3	4	Prerequisite: MAC 2312
MAD 1100	Discrete Mathematics for Computer Science	3	Prerequisite: MAC1105
MAD 2104	Discrete Mathematics	3	Prerequisite: MAC 1106 or MAC1140
MAP 2302	Introduction to Differential Equations	3	Prerequisite: MAC 2312
MAS 2103	Elementary Linear Algebra	3	Prerequisite: MAC 2311
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).

MGF 1131	Mathematics in Context	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

7.GENERAL EDUCATION ELECTIVES (3.00 credits)

EEX 2000	Introduction to Special Education	3

COMPUTER COMPETENCY REQUIREMENT

Test type(s) needed:
Computer Skills Placement (CSP)
---OR---

CGS 1060C	Introduction to Computer Technology & Application	

COMMON PREREQUISITES (3.00 credits)

EDF 1005	Introduction to the Education Profession	3

LOWER DIVISION REQUIREMENTS (18.00 credits)

MAC 1114	Trigonometry	3
and		
MAC 1140	Pre-Calculus Algebra	3
or		
MAC 1147	Pre-Calculus Algebra and Trigonometry	5
and		
MAC 2311	Calculus and Analytical Geometry 1	5
MAC 2312	Calculus and Analytical Geometry 2	4
MAC 2313	Calculus and Analytic Geometry 3	4

LOWER DIVISION ELECTIVES (3.00 credits)

Electives may include any appropriate transferrable (Credit Type 1 or 2) courses (Check with Advisor).

PROFESSIONAL EDUCATION CORE (18.00 credits)

EDF 4430	Measurement and Assessment in Education	3
EDG 3321	General Teaching Skills	3
EDG 3443	Classroom and Behavior Management	3
EEX 3071	Teaching Exceptional and Diverse Populations in Inclusive Settings	3
RED 3393	Differentiated Instruction in Content Reading	3
TSL 4324C	ESOL Strategies for Content Area Teachers	3

DISCIPLINE CONTENT (30.00 credits)

MAD 3107	Discrete Structures	3
MAE 3951	Project-Based Learning in Mathematics Education	2
MAE 4360	Methods of Teaching Mathematics	3
MAE 4940	Advanced Topics in Mathematics Education Practicum	3
MAP 2302	Introduction to Differential Equations	3
MAS 3105	Linear Algebra	3
MAS 3301	Algebraic Structures	3
MAS 4203	Number Theory	3
MHF 4404	History of Mathematics	3
MTG 3214	Euclidean Geometry	4

STUDENT TEACHING/INTERNSHIP (12.00 credits)

MAE 4942	Seminar in Mathematics Education	3
MAE 4945	Internship in Mathematics Education	9

Additional Information:
Students should check their individualized Degree Audit Report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami Dade College. This outline includes current graduation requirements.

Miami Dade College

Secondary Science Education - Biology
Bachelor of Science | Code: S9210 | 120 credits
CIP (1101313221**)**
Effective Term: Fall 2025 (2257)

The four-year baccalaureate degrees in Education are designed to prepare students to become teachers and pass state professional certification exams. An internship in a school setting is required to provide practical experience. Additionally, individuals with Bachelor's degrees in other fields are able to earn teacher certification. Please refer to the College Catalog for specific program prerequisites (www.mdc.edu).

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL REQUIREMENTS (36.00 Credits)			
Courses require a grade of "C" or higher to satisfy the general education requirement.			
COMMUNICATIONS (6.00 credits) **			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and Writing Requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
ENC 1102	English Composition 2	3	Prerequisite: ENC 1101
ORAL COMMUNICATIONS (3.00 credits) **			
Select one course from the following:			
SPC 1017	Introduction to Communication	3	
SPC 2608	Introduction to Public Speaking	3	
HUMANITIES (6.00 credits) **			
Select at least one course from the six State Core options.			
State Core: 3 credits			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MDC Core: 3 credits			
ARC 2701	History of Architecture 1	3	
ARC 2702	History of Architecture 2	3	
ARH 1000	Art Appreciation	3	
ARH 2050	Art History 1	3	
ARH 2051	Art History 2	3	Prerequisite: ARH 2050
ARH 2740	Cinema Appreciation	3	Prerequisite: HUM 1020
DAN 2100	Dance Appreciation	3	
DAN 2130	Dance History 1	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
LIT 2120	A Survey of World Literature	3	Prerequisites: ENC 1101, ENC 1102 or equivalent
MUH 2111	Survey of Music History 1	3	
MUH 2112	Survey of Music History 2	3	Prerequisite: MUH 2111
MUL 1010	Music Appreciation	3	
MUL 2380	Jazz and Popular Music in America	3	
PHI 2010	Introduction to Philosophy	3	
PHI 2604	Critical Thinking and Ethics	3	Prerequisite: ENC 1101
THE 2000	Theater Appreciation	3	

MATHEMATICS (6.00 credits) **
Select at least one course from the State Core options. Lab units are not allowed in this area.

State Core: 3 credits

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

MDC Core: 3 credits

MAC 1105	College Algebra	3	Prerequisite: MAT 1033
MAC 1106	Integrated College and Precalculus Algebra	5	Prerequisite: MAT1033
MAC 1114	Trigonometry	3	Prerequisite: MAC 1105 or MAC 1106
MAC 1140	Pre-Calculus Algebra	3	Prerequisite: MAC 1105
MAC 1147	Pre-Calculus Algebra and Trigonometry	5	Prerequisite: MAC1105
MAC 2233	Business Calculus	3	Prerequisite: MAC 1105 or MAC1106
MAC 2311	Calculus and Analytical Geometry 1	5	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MAC 2312	Calculus and Analytical Geometry 2	4	Prerequisite: MAC 2311
MAC 2313	Calculus and Analytic Geometry 3	4	Prerequisite: MAC 2312
MAD 1100	Discrete Mathematics for Computer Science	3	Prerequisite: MAC1105
MAD 2104	Discrete Mathematics	3	Prerequisite: MAC 1106 or MAC1140
MAP 2302	Introduction to Differential Equations	3	Prerequisite: MAC 2312
MAS 2103	Elementary Linear Algebra	3	Prerequisite: MAC 2311
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
MGF 1131	Mathematics in Context	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

NATURAL SCIENCES (6.00 credits)
(Format and Align)

SOCIAL SCIENCES (6.00 credits)
Select at least one course from the State Core options. To meet the Civic Literacy Competency Requirement for graduation one course selection should be AMH 2010 or AMH 2020 or POS 2041.

State Core: 3 credits

AMH 2010	History of the US to 1877	3
AMH 2020	History of the US Since 1877	3
POS 2041	American Federal Government	3

MDC Core: 3 credits

DEP 2000	Human Growth and Development	3
PSY 2012	Introduction to Psychology	3

GENERAL EDUCATION ELECTIVES (3.00 Credits) **

EEX 2000	Introduction to Special Education	3

COMPUTER COMPETENCY
Test type(s) needed:
Computer Skills Placement (CSP)
NOTE: Students are strongly recommended to take the CSP exam.
---OR---
CGS 1060C Introduction to Computer Technology & Application

COMMON PREREQUISITES REQUIREMENTS (3.00 Credits)

LOWER DIVISION REQUIREMENTS (6.00 Credits)

EDF 2144	Maximizing Student Potential in the School Context	3	
EME 2040	Introduction to Technology for Educators	3	

SCIENCE REQUIREMENTS (14.00 Credits)
Group A: Biological Sciences

BSC 2010L	Principles of Biology 1 Laboratory	2	Corequisite: BSC2010
BSC 2011	Principles of Biology 2	3	Prerequisites: BSC 2010, BSC 2010L; Corequisite: BSC 2011L
BSC 2011L	Principles of Biology Lab 2	2	Prerequisites: BSC 2010, BSC 2010L; Corequisite: BSC 2011

---AND---
Group B: Physical Sciences

CHM 1045L	General Chemistry and Qualitative Analysis Lab	2	Prerequisites: CHM 1025 or a passing score on the CART exam, MAC 1105; Corequisite: CHM 1045
CHM 1046	General Chemistry and Qualitative Analysis	3	Prerequisites: CHM 1045, CHM 1045L; Corequisite: CHM 1046L
CHM 1046L	General Chemistry & Qualitative Analysis Lab	2	Prerequisites: CHM 1045, CHM 1045L; Corequisite: CHM 1046

SCIENCE ELECTIVES (3.00 Credits)
Students must select 3 credits from the following group.

BSC 1084	Functional Human Anatomy	3
BSC 2020	Human Biology: Fundamentals of Anatomy/Physiology	3

PROFESSIONAL EDUCATION CORE (18.00 Credits)

EDF 4430	Measurement and Assessment in Education	3
EDG 3321	General Teaching Skills	3
EDG 3443	Classroom and Behavior Management	3
EEX 3071	Teaching Exceptional and Diverse Populations in Inclusive Settings	3
RED 3393	Differentiated Instruction in Content Reading	3
TSL 4324C	ESOL Strategies for Content Area Teachers	3

DISCIPLINE CONTENT (17.00 Credits)
Group A Courses: 12 credits

PCB 3043	Fundamentals of Ecology	3	Prerequisites: BSC 2011, BSC 2011L
PCB 3060	Principles of Genetics	3	Prerequisites: BSC 2010, BSC 2010L, BSC 2011, BSC 2011L
SCE 4362	Methods of Teaching Science	3	Pre/Corequisite: EDF 4430
SCE 4363	Advanced Topics in Science Education Practicum	3	Prerequisites: EDF 4430, EDG 3321, RED 3393, SCE 4362, TSL 4324C; Pre/Corequisites: EEX 3071, SCE 3893

---AND---
Group B Courses: 5 credits

MCB 2010	Microbiology	3	Prerequisites: BSC2010, 2010L or BSC 2085,2085L; CHM1033, CHM 1033L or CHM 1045, 1045L

MCB 2010L	Microbiology Laboratory	2	Prerequisites: BSC2010, 2010L or BSC 2085,2085L; CHM1033, CHM 1033L or CHM 1045, 1045L; Corequisite: MCB 2010
---or---			
MCB 3023	Principles of Microbiology	3	Prerequisites: BSC 2010, BSC 2010L, BSC 2011, BSC 2011L, CHM 2211, CHM 2211L; Corequisite: MCB3023L
MCB 3023L	Principles of Microbiology Lab	2	Prerequisites: BSC 2010, BSC 2010L, BSC 2011, BSC2011L, CHM 2211, CHM 2211L; Corequisite: MCB 3023

ELECTIVES (11.00 Credits)

BCH 3023	Introductory Biochemistry	3	Prerequisites: BSC 2010, BSC 2010L, BSC 2011, BSC 2011L, CHM 2211, CHM 2211L; Corequisite: BCH 3023L
BCH 3023L	Introductory Biochemistry Laboratory	2	Prerequisites: BSC 2010, BSC 2010L, BSC 2011, BSC 2011L, CHM 2211, CHM 2211L; Corequisite: BCH 3023
BOT 3015 ♦	Survey of Plant Diversity	3	Prerequisites: BSC 2010, BSC 2010L, BSC 2011, BSC 2011L; Corequisite: BSC 3015L
BSC 3930	Biological Sciences Seminar	1	Prerequisites: BSC 2010, BSC 2010L, BSC 2011, BSC 2011L
CHM 2210	Organic Chemistry 1	3	Prerequisites: CHM 1046, CHM 1046L; Corequisite: CHM 2210L
CHM 2210L	Organic Chemistry 1 Laboratory	2	Prerequisites: CHM 1046, CHM 1046L; Corequisite: CHM 2210
CHM 2211	Organic Chemistry 2	3	Prerequisites: CHM 2210, CHM 2210L; Corequisite: CHM 2211L
CHM 2211L	Organic Chemistry 2 Laboratory	2	Prerequisites: CHM 2210, CHM 2210L; Corequisite: CHM 2211
CHM 2200	Survey of Organic Chemistry	3	Prerequisites: CHM 1046, CHM 1046L; Corequisite: CHM 2200L
CHM 2200L	Survey of Organic Chemistry Laboratory	2	Prerequisites: CHM 1046, CHM 1046L; Corequisite: CHM 2200
PCB 3060L	Principles of Genetics Laboratory	2	Prerequisites: BSC 2010, BSC 2010L, BSC 2011, BSC 2011L; Corequisite: PCB 3060
PCB 4674	Evolution	3	Prerequisites: BSC 2010, BSC 2010L, BSC 2011, BSC 2011L, PCB 3060, PCB 3060L
SCE 3893	Teaching and Learning the Nature of Science	3	
SOP2772	Human Sexuality	3	
ZOO 3021 ♦	Survey of Animal Diversity	3	Prerequisites: BSC 2010, BSC 2010L, BSC 2011, BSC 2011L

STUDENT TEACHING/INTERNSHIP (12.00 Credits)

SCE 4943	Seminar in Science Education	3	Corequisites: SCE 4945
SCE 4945	Internship in Science Education	(9 credits)	Corequisites: SCE 4943

Important Information: Civic Literacy Competency: Associate in arts or baccalaureate degree students entering a Florida College System (FCS) or State University System (SUS) institution in the 2021-2022 academic school year and thereafter and Associate in Science degree students entering a Florida College System (FCS) or State University System (SUS) institution in the 2022-2023 academic school year and thereafter must demonstrate competency through successful completion of a civic literacy course (AMH 2010 or AMH 2020 or POS 2041) AND by achieving a passing score on the Florida Civic Literacy Examination (FCLE). First-time-in-college students who entered between Fall 2018 and Summer 2021 will continue to have the option of passing a course or an approved assessment. For more information regarding the Florida Civic Literacy Requirement, go to Civic Literacy Competency.

Computer Competency: By the 16th earned college-level credit, students must attempt the computer competency requirement OR by the 31st earned college-level credit, students must satisfy the requirement (CGS1060C, an equivalent college credit course or the College's approved computer competency test). For more information, see Computer Competency.

Foreign Language Competency: May be satisfied by Foreign Language Competency (FLC) standardized examinations. For more information, refer to Foreign Language Competence.

Grade Point Average (GPA) Requirement: Students must complete all coursework with a "C" or better to complete the degree.

Graduation Requirements: Students should check their individualized Degree Audit Report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami Dade College. This outline includes current graduation requirements.

Additional Information
•Strongly Recommended by School of Education
*Includes any and all courses within associated prefix
**General education courses require grade of "C" or higher to satisfy requirement

Certificate of Professional Preparation (CPP)

Cyber Defense

Certificate of Professional Preparation | Code: PBC04 | 24 credits

Cyber Defense is a cybersecurity specialty for professionals who protect and defend an organization's information system from various threats. They use data collected from a variety of cyber defense tools (e.g., IDS alerts, firewalls, network traffic logs) to analyze cybersecurity events and mitigate potential cyber-attacks and data breaches. The Certificate of Professional Preparation (CPP) in Cyber Defense is designed for current and pre-professionals interested in working in the field of cybersecurity operations. Note: Program Admissions Requirements: Baccalaureate degree in any field of study from a regionally accredited institution.

Educator Preparation Institute

Certificate of Professional Preparation | Code: 69000 | 21 credits

The Educator Preparation Institute (EPI) is a state approved competency-based alternative certification program for individuals who have a bachelor's degree or higher in a discipline other than education and are currently teaching on a Temporary Teaching Certificate or who wish to enter the teaching profession. It focuses on the skills and competencies identified by the state as necessary for a high quality teacher to possess. Emphasis is placed on the Sunshine State Standards, teaching methods and strategies, the integration of technology into instructional practice, literacy development, assessment techniques and integration of technology into instructional practice, literacy development, assessment techniques and analysis of date, classroom management and school safety. At the completion of these modules the student will have successfully demonstrated the Florida Educator Accomplished Practices and have provided documentation of mastery in a comprehensive professional portfolio.

Instructional Design and Technology

Certificate of Professional Preparation | Code: CPP03 | 15 credits | 16 weeks to complete

This program is designed to provide baccalaureate-prepared students with the knowledge and skills necessary to work as instructional designers and technologists. Instructional designers and technologists plan and conduct instructional design workshops, seminars, and trainings for learning and organizational development. Instructional designers and technologists develop and deliver comprehensive, highly-engaging and interactive training experiences and evaluation strategies for all learning solutions that demonstrate impact and effectiveness. Instructional designers promote collaboration, partnerships, and relationships among the participants and stakeholders, acquire and apply new technology skills to instructional design practice, and design learning that reflects an understanding and appreciation of diverse learners and cultural differences.

Networking

Certificate of Professional Preparation | Code: PBC05 | 28 credits

Modern computer networks are increasingly pervasive and complex. They help improve the speed and efficiency of daily business operations, allowing for easy information discovery, storage, sharing, and protection. As technology evolves, it is indispensable for organizations to maintain the efficiency, speed and security of computer networks, thus facilitating seamless collaboration among people and applications. The Certificate of Professional Preparation (CPP) in Networking is designed for current and pre-professionals interested in working in the field of networking. They will learn how to plan, design, implement and maintain network infrastructures. Note: Program Admissions Requirements: Baccalaureate degree in any field of study from a regionally accredited institution.

Reading Endorsement

Certificate of Professional Preparation | Code: CPP02 | 15 credits

The Reading Endorsement is a Certificate of Professional Preparation that adds licensure to professionally certified teachers so that they can teach reading. This program meets the specifications in State Board Rule 6A-4.0292 for the Reading Endorsement.

Software Engineering

Certificate of Professional Preparation | Code: PBC06 | 28 credits

Software engineers contribute to the development and maintenance of computer systems software and applications software. Computer systems software consists of programs that include computing utilities and operating systems. Applications software includes a variety of user-focused programs from web-browsers to multimedia applications. The Certificate of Professional Preparation in Software Engineering will provide students with the knowledge of software development, computer architecture, algorithm design, and data structures to apply software engineering principles to software creation. By applying these engineering principles to every stage of the development process, students learn how to specify software requirements from clients and how to design, implement and validate software solutions. Note: Program Admissions Requirements: Baccalaureate degree in any field of study from a regionally accredited institution.

Vulnerability Assessment

Certificate of Professional Preparation | Code: PBC07 | 24 credits

Vulnerability Assessment is a cybersecurity specialty for professionals who protect and defend an organization's information system from various threats. They perform assessments of systems and networks against known vulnerabilities and recommend appropriate mitigation countermeasures against potential cyber-attacks and data breaches. The Certificate of Professional Preparation (CPP) in Vulnerability Assessment is designed for current and pre-professionals interested in working in the field of cybersecurity operations. Note: Program Admissions Requirements: Baccalaureate degree in any field of study from a regionally accredited institution.

Certificate of Professional Preparation (CPP) Program Sheets

Miami Dade College

Cyber Defense
Certificate of Professional Preparation| Code: PBC04 | 24 Credits
CIP (5554304030**)**
Effective Term: Fall 2022 (2227)

Cyber Defense is a cybersecurity specialty for professionals who protect and defend an organization's information system from various threats. They use data collected from a variety of cyber defense tools (e.g., IDS alerts, firewalls, network traffic logs) to analyze cybersecurity events and mitigate potential cyberattacks and data breaches. The Certificate of Professional Preparation ins Cyber Defense is designed for current and pre-professionals interested in working in the field of cybersecurity operations. Note: Program Admissions Requirements: Baccalaureate degree in any field of study from a regionally accredited institution.

Course	Course Title	Credits	Pre-/Co-Requisites
PROGRAM COURSE REQUIREMENTS			
Networking Foundation Core (4.00 Credits)			
Select one course from the following offerings.			
CTS 1134	Networking Technologies	4	
---OR---			
CTS 1650	CCNA 1: Cisco Fundamentals	4	
Program Core (20.00 Credits)			
CIS 3360	Principles of Information Security	4	Prerequisite: CTS 1134 **or** CTS 1650
CIS 3361	Information Security Management	4	Prerequisite: CIS 3360
CIS 4364	Intrusion Detection and Incident Response	4	Prerequisite: CIS 3360
CIS 4366	Computer Forensics	4	Prerequisite: CIS 3360
CIS 4388	Advanced Computer Forensics	4	Prerequisite: CIS 4366

Miami Dade College

Educator Preparation Institute
Certificate of Professional Preparation | Code: 69000 | 21 Credits
CIP (5551399990**)**
Effective Term: Fall 2017 (2177)

The Educator Preparation Institute (EPI) is a state approved competency-based alternative certification program for individuals who have a bachelor's degree or higher in a discipline other than education and are currently teaching on a Temporary Teaching Certificate or who wish to enter the teaching profession. It focuses on the skills and competencies identified by the state as necessary for a high quality teacher to possess. Emphasis is placed on the Sunshine State Standards, teaching methods and strategies, the integration of technology into instructional practice, literacy development, assessment techniques and integration of technology into instructional practice, literacy development, assessment techniques and analysis of date, classroom management and school safety. At the completion of these modules the student will have successfully demonstrated the Florida Educator Accomplished Practices and have provided documentation of mastery in a comprehensive professional portfolio.

Course	Course Title	Credits	Pre-/Co-Requisites
Major Courses First Semester (9.00 CREDITS)			
EPI 0001	Classroom Management	3	
EPI 0002	Instructional Strategies	3	
EPI 0003	Technology	3	
EDG 3443	Classroom and Behavior Management	3	
Major Courses Second Semester (6.00 Credits)			
EPI 0004	The Teaching & Learning Process	3	
EPI 0010	Foundations of Research-Based Practices in Reading	3	
Major Courses Third Semester (6.00 Credits)			
EPI 0020	Professional Foundations	1	
EPI0030	Maximizing Student Potential in the School Context	2	
EPI 0940	Field Experience II	2	
EPI 0945	Field Experience I	1	

Miami Dade College

Instructional Design and Technology
Certificate of Professional Preparation | Code: PBC03 | 15 credits
CIP (5551303010**)**
Effective Term: Spring 2020 (2203)

This program is designed to provide baccalaureate-prepared students with the knowledge and skills necessary to work as instructional designers and technologists. Instructional designers and technologists may plan and conduct training for teachers related to teaching methods or the use of technology. Instructional designers and technologists oversee school curriculums and teaching standards. They develop instructional material, coordinate its implementation with teachers and principals, and assess its effectiveness.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR CORE REQUIREMENTS (15.00 Credits)			
EME 4610	Introduction to Instructional Design	3	
EME 4671	Instructional Design Analysis	3	Pre/Corequisite: EME 4610
EME 4683	Instructional Design Application	3	Pre/Corequisite: EME 4671
EME 4611	Instructional Design Development 1	3	Pre/Corequisite: EME 4683
EME 4612	Instructional Design Development II	3	Pre/Corequisite: EME 4611

Miami Dade College

Networking
Certificate of Professional Preparation | Code: PBC05 | 28 Credits
CIP (5551110010**)**
Effective Term: Fall 2022 (2227)

Modern computer networks are increasingly pervasive and complex. They help improve the speed and efficiency of daily business operations, allowing for easy information discovery, storage, sharing, and protection. As technology evolves, it is indispensable for organizations to maintain the efficiency, speed and security of computer networks, thus facilitating seamless collaboration among people and applications. The Certificate of Professional Preparation in Networking is designed for current and pre-professionals interested in working in the field of networking. They will learn how to plan, design, implement and maintain network infrastructures. Note: Program Admissions Requirements: Baccalaureate degree in any field of study from a regionally accredited institution.

Course	Course Title	Credits	Pre-/Co-Requisites
PROGRAM COURSE REQUIREMENTS			
Foundation Core (4.00 Credits)			
Select one course from the following offerings.			
CTS 1134	Networking Technologies	4	
---OR---			
CTS 1650	CCNA 1: Cisco Fundamentals	4	
Program Core (24.00 Credits)			
CIS 3360	Principles of Information Security	4	Prerequisite: CTS 1134 or CTS 1650
CIS 4347	Information Storage Management	4	Prerequisite: CTS 1134 or CTS 1650
CNT 3526	Wireless and Mobile Networking	4	Prerequisite: CTS 1134 or CTS 1650
CNT 3409	Network Security	4	Prerequisite: CIS 3360
CNT 4603	System Administration and Maintenance	4	Prerequisite: CTS 1134 or CTS 1650
CNT 4702	Network Design and Planning	4	Prerequisite: CIS 336

Miami Dade College

Reading Endorsement
Certificate of Professional Preparation | Code: PBC02 | 15 credits
CIP (1101313151**)**
Effective Term: Spring 2020 (2203)

The Reading Endorsement is a Certificate of Professional Preparation that adds licensure to professionally certified teachers so that they can teach reading. This program meets the specifications in State Board Rule 6A-4.0292 for the Reading Endorsement.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (15.00 Credits)			
RED 4033	Teaching Foundations of Reading Instruction	3	
RED 4342	Applications of Research-Based Instructional Practice	3	
RED 4541	Foundations of Assessment	3	
RED 4654	Foundations and Applications of Differentiated Instruction	3	
RED 4854	Reading Practicum	3	

Miami Dade College

Software Engineering
Certificate of Professional Preparation| Code: PBC06 | 28 Credits
CIP (5551102010**)**
Effective Term: Fall 2022 (2227)

Software engineers contribute to the development and maintenance of computer systems software and applications software. Computer systems software consists of programs that include computing utilities and operating systems. Applications software includes a variety of user-focused programs from web-browsers to multimedia applications. The Certificate of Professional Preparation in Software Engineering will provide students with the knowledge of software development, computer architecture, algorithm design, and data structures to apply software engineering principles to software creation. By applying these engineering principles to every stage of the development process, students learn how to specify software requirements from clients and how to design, implement and validate software solutions. Note: Program Admissions Requirements: Baccalaureate degree in any field of study from a regionally accredited institution.

Course	Course Title	Credits	Pre-/Co-Requisites
PROGRAM COURSE REQUIREMENTS			
Programming Foundation Core (8.00 Credits)			
COP 1334	Introduction to C++ Programming	4	
COP 2800	Java Programming	4	Prerequisite: COP1334
Program Core (20.00 Credits)			
CET 3126C	Computer Architecture	4	
CET 3383C	Software Engineering I	4	Prerequisite: COP 2800
CEN 4025C	Software Engineering II	4	Prerequisite: CET 3383C
COP 3530	Data Structures	4	Prerequisite: COP 2800
COT 4400	Design and Analysis of Algorithms Pre/Corequisite: COP 3530	4	Prerequisite: COP 2800;

Miami Dade College

Vulnerability Assessment
Certificate of Professional Preparation| Code: PBC07 | 24 Credits
CIP (5551110030**)**
Effective Term: Fall 2022 (2227)

Vulnerability Assessment is a cybersecurity specialty for professionals who protect and defend an organization's information system from various threats. They perform assessments of systems and networks against known vulnerabilities and recommend appropriate mitigation countermeasures against potential cyberattacks and data breaches. The Certificate of Professional Preparation in Vulnerability Assessment is designed for current and pre-professionals interested in working in the field of cybersecurity operations. Note: Program Admissions Requirements: Baccalaureate degree in any field of study from a regionally accredited institution.

Course	Course Title	Credits	Pre-/Co-Requisites
PROGRAM COURSE REQUIREMENTS			
Networking Foundation Core (4.00 Credits)			
Select one course from the following offerings.			
CTS 1134	Networking Technologies	4	
---OR---			
CTS 1650	CCNA 1: Cisco Fundamentals	4	
Program Core (20.00 Credits)			
CIS 3215	Ethics in Cybersecurity	4	
CIS 3360	Principles of Information Security	4	Prerequisite: CTS 1134 or CTS 1650
CIS 4204	Ethical Hacking I	4	Prerequisite: CIS 3360
CIS 4378	Ethical Hacking II	4	Prerequisite: CIS 4204
CIS 4364	Intrusion Detection and Incident Response	4	Prerequisite: CIS 3360

ASSOCIATE IN ARTS DEGREE (AA)

Miami Dade College offers courses for a wide range of pathways in the Associate in Arts (AA) degree. The AA prepares students to enter the junior year at four-year upper-division colleges and universities.

Four-year institutions vary in the required number and nature of courses a student needs to take during the freshman and sophomore years. The State Common lower level course prerequisites have been identified for all baccalaureate majors. Students should see an advisor for additional information.

Students who have determined which profession or major they plan to pursue should become familiar with the requirements of the upper-division institutions. With the help of advisors and through using the degree audit, students may choose electives best suited for pursuit of a baccalaureate degree.

Students must be high school graduates or have a high school equivalency diploma (GED) to enroll in Associate in Arts courses.

Each pathway is comprised of courses specified by one or more of the universities in the SUS or by local private institutions. The first two years of these transfer programs contain specialized courses as prescribed by the respective university (refer to FLVC.org for the Common Prerequisite Manual information). All general education requirements are included. Students should be aware that credits earned in excess of the 60 credits required for graduation might not be accepted for transfer by the upper-division university. Note: The AA does not prepare students to be eligible to take certification/ licensure exams or to practice in the health care professions. Students may be awarded the AA degree only once, and students who have already earned a baccalaureate degree cannot be awarded an AA.

STUDENTS SHOULD CHECK THEIR INDIVIDUALIZED DEGREE AUDIT REPORT TO DETERMINE THE SPECIFIC GRADUATION POLICIES IN EFFECT. REQUIREMENTS MAY CHANGE BASED ON THE YEAR AND TERM A STUDENT ENTERS MIAMI DADE COLLEGE. THE DEGREE AUDIT REPORT INCLUDES CURRENT GRADUATION REQUIREMENTS. THE FINAL RESPONSIBILITY FOR MEETING GRADUATION REQUIREMENTS STATED IN THE DEGREE AUDIT REPORT RESTS WITH THE STUDENT.

Accounting

Associate in Arts | Code: 10504 | 60 credits

This pathway offers fundamental instruction in accounting and related subjects (such as economics or business). Students who wish to become an accountant may transfer to senior colleges or universities that offer baccalaureate degrees in accounting. Accountants work in a variety of settings such as corporations, small businesses, financial institutions and government agencies.

Agriculture

Associate in Arts | Code: 10100 | 60 credits

Agriculture is the art, science and industry of managing the growth of plants and animals for human use. The pathway, if followed, provides preparation in the sciences of biology (including botany), chemistry and/or physics. The range of careers in agriculture extends from rural farming to urban landscaping, with numerous specializations in areas such as hydroponics, agricultural engineering, animal husbandry, food packing and processing and soil chemistry.

Anthropology

Associate in Arts | Code: 12200 | 60 credits

Anthropology studies all aspects of human life by evaluating society, evolution and culture. The pathway, if followed, provides course preparation in the four fields of the discipline: cultural anthropology, physical anthropology, anthropological linguistics and archaeology. Most anthropologists are researchers who work in museums or educational institutions. Students majoring in anthropology should plan to obtain the Ph.D. degree to fully succeed in the field.

Architecture

Associate in Arts | Code: 10200 | 60 credits

This pathway provides a foundation in areas such as architectural drawing, design and structure, as well as necessary courses in mathematics. Students may transfer to one of three universities in Florida that have accredited programs in architecture. An architect designs and oversees the construction or remodeling of buildings, working with engineers and contractors toward a prescribed goal.

Area & Ethnic Studies

Associate in Arts | Code: 10304 | 60 credits

The Area and Ethnic Studies pathway, if followed, offers a flexible and interdisciplinary approach that provides the foundations of history, politics and literature of various groups. Students can concentrate in a specific area such as African-American/Black studies, American studies, Asian Studies, Jewish studies, Latin American studies, or Women's studies. These studies could lead to careers in sociology, political science, or academic work in areas such as comparative literature or history.

Art or Art Education

Associate in Arts | Code: 11000 | 60 credits

This pathway, if followed, offers hands-on preparation in medias such as ceramics, jewelry making and metalsmithing, painting, photography, print making and sculpture. Additionally, the curriculum includes design, art history and education classes, so that students may work as artists or art teachers.

Atmospheric Science & Meteorology

Associate in Arts | Code: 11903 | 60 credits

To transfer to a four-year program in atmospheric science and meteorology, students must take science and math courses as

well as introductory courses in meteorology. Job opportunities may include weather forecasting in aviation, marine or shipping companies, government agencies, and broadcasting or transportation industries. Additionally, meteorologists may work with other scientists researching phenomena such as volcanoes, hurricanes and fluctuating climate systems.

Biology
Associate in Arts | Code: 10400 | 60 credits

Biology, or life science, is the study of all aspects of living organisms, emphasizing the relationship of animals and plants to their environment. This pathway provides the first two years of a four-year curriculum for students planning to major in biology, botany, zoology, marine biology, ecological studies or microbiology. Biology majors may also enter professional schools in medicine, dentistry, veterinary medicine, optometry or podiatry.

Biotechnology
Associate in Arts | Code: 12207 | 60 credits

Biotechnology is the practice of using living organisms to make products or improve processes. It combines elements of biology, chemistry, engineering, and computing. This pathway provides the first two years of a four-year curriculum for students planning to major in biotechnology, biology, chemistry, or bioinformatics. Majors may also enter professional schools in related disciplines

Building Construction
Associate in Arts | Code: 10907 | 60 credits

This pathway is for students primarily interested in the construction of buildings rather than their architectural design. Coursework includes math and science subjects as well as courses in business and construction. A four-year degree in this program will prepare students to enter the building construction industry at the management level.

Business Administration
Associate in Arts | Code: 10503 | 60 credits

Business Administration includes courses in accounting, business law and finance, as well as more generalized courses in mathematics. Students may transfer to senior colleges or universities that offer baccalaureate degrees in business administration. Ultimately, graduates may work in the fields of banking, finance, marketing, information systems or real estate.

Chemistry
Associate in Arts | Code: 11901 | 60 credits

Chemistry is the science that investigates the composition, properties and change of properties of elementary forms of matter. This pathway provides the first two years of a four-year curriculum leading to a baccalaureate degree in chemistry. Chemists may work as researchers, analysts, or quality control specialists in companies that manufacture anything from pharmaceuticals to food products. Additionally, students may pursue careers in medicine, environmental science, chemical engineering or many other fields.

Computer Arts Animation
Associate in Arts | Code: 11005 | 60 credits

This pathway, if followed provides students the foundations to develop creative and artistic skills, utilizing advanced computer skills. Studies include basic drawing and figure drawing, use of computer animation software and general education, as well as evaluation of trends and standards in the animation industry for television and film.

Computer Information Systems
Associate in Arts | Code: 10702 | 60 credits

CIS focuses on the structure, management and control of information resources on computers. Coursework includes business and math classes, as well as courses in information systems and programming languages. Students transfer to four-year institutions and major in computer information systems, computer and information sciences, information sciences, or management information systems. Degrees lead to careers in systems analysis, computer application programming, database management, network services and IT support.

Computer Science
Associate in Arts | Code: 10703 | 60 credits

The Computer Science pathway, if followed, offers courses in programming and applications and provides a thorough grounding in mathematics, biology, chemistry and physics. Computer scientists design technical programs, do research, create new technologies, develop operating systems, code device drivers, write specialized programming languages and implement complex applications in a variety of settings. Computer Science requires skills in mathematics and physics. Students must complete Calculus II and Physics with Calculus II before entering their junior year.

Criminal Justice Administration
Associate in Arts | Code: 12204 | 60 credits

The AA in Criminal Justice Administration offers a comprehensive overview of the criminal justice system, with coursework in criminology, corrections, criminal justice law, and homeland security. It is ideal for students seeking a Bachelor's degree in criminal justice and those interested in pursuing careers in various areas of criminal justice. Graduates may find opportunities in law enforcement, corrections (including probation and parole), and security roles within private businesses or government agencies. Students may also continue their formal education with the College and receive a BAS in Public Safety Management.

Dance
Associate in Arts | Code: 11003 | 60 credits

Studio classes feature modern dance and ballet, and the pathway also includes theoretical courses. This curriculum meets the pre-professional and general education course requirements for transfer, but students should meet with an advisor to discuss the specific requirements of the four-year institution they plan to attend. Often, departments in four-

year institutions will require an audition. This pathway is designed to prepare students pursuing careers in choreography or the performance of ballet and jazz or contemporary forms of dance. The pathway is also suited for students wishing to become teachers of dance.

Dietetics
Associate in Arts | Code: 11305 | 60 credits

This pathway provides the science education needed to transfer to a four-year program in dietetics. Chemistry, biology, anatomy and physiology are emphasized in this pathway. Dieticians and nutrition specialists may work as meal planners in institutions such as schools and hospitals, in the food products or health and fitness industry, or in a range of health and medical professions.

Drama or Drama Education
Associate in Arts | Code: 11002 | 60 credits

This is a comprehensive pathway in all aspects of theatrical production, including lighting, costuming, make-up and other aspects of stagecraft. Students may participate in stage productions which are presented to the public throughout the academic year. While this pathway does provide the necessary coursework to transfer to a four-year institution, some departments in four-year colleges and universities will require an audition or portfolio, depending on the student's intended area of study. Careers in drama include education, theatrical production, casting, acting and a wide variety of stagecraft.

Economics
Associate in Arts | Code: 12201 | 60 credits

The study of Economics seeks to analyze and describe the production, distribution, and consumption of wealth. This pathway emphasizes fundamental coursework in business and mathematics. While many students choose to obtain graduate degrees, economists with Bachelor's degrees can work in fields such as business economics and forecasting urban real estate and regional planning, analysis of markets and industrial regulation, management consulting and in banking and financial services.

Engineering - Architectural
Associate in Arts | Code: 10905 | 60 credits

Miami Dade College offers ten Engineering pathways: architectural, chemical, civil, computer, electrical, industrial, mechanical, ocean, science, and surveying and mapping. Each has its own curriculum to best prepare students for transfer to a four-year institution. Interdisciplinary fields can include the study of biomechanics, kinesiology, nutrition and related areas.

Engineering - Biomedical
Associate in Arts | Code: 10904 | 60 credits

Miami Dade College offers ten Engineering pathways: architectural, biomedical chemical, civil, computer, electrical, industrial, mechanical, ocean, and surveying and mapping. Each has its own curriculum to best prepare students for transfer to a four-year institution. Interdisciplinary fields can include the study of biomechanics, kinesiology, nutrition and related areas.

Engineering - Chemical
Associate in Arts | Code: 10906 | 60 credits

Miami Dade College offers ten Engineering pathways: architectural, chemical, civil, computer, electrical, industrial, mechanical, ocean, science, and surveying and mapping. Each has its own curriculum to best prepare students for transfer to a four-year institution. Interdisciplinary fields can include the study of biomechanics, kinesiology, nutrition and related areas.

Engineering - Civil
Associate in Arts | Code: 10908 | 60 credits

Miami Dade College offers ten Engineering pathways: architectural, chemical, civil, computer, electrical, industrial, mechanical, ocean, science, and surveying and mapping. Each has its own curriculum to best prepare students for transfer to a four-year institution. Interdisciplinary fields can include the study of biomechanics, kinesiology, nutrition and related areas.

Engineering - Computer
Associate in Arts | Code: 10705 | 60 credits

Miami Dade College offers ten Engineering pathways: architectural, chemical, civil, computer, electrical, industrial, mechanical, ocean, science, and surveying and mapping. Each has its own curriculum to best prepare students for transfer to a four-year institution. Interdisciplinary fields can include the study of biomechanics, kinesiology, nutrition and related areas.

Engineering - Electrical
Associate in Arts | Code: 10910 | 60 credits

Miami Dade College offers ten Engineering pathways: architectural, chemical, civil, computer, electrical, industrial, mechanical, ocean, science, and surveying and mapping. Each has its own curriculum to best prepare students for transfer to a four-year institution. Interdisciplinary fields can include the study of biomechanics, kinesiology, nutrition and related areas.

Engineering - Geomatics (Surveying and Mapping)
Associate in Arts | Code: 10909 | 60 credits

Miami Dade College offers ten Engineering pathways: architectural, chemical, civil, computer, electrical, industrial, mechanical, ocean, science, and surveying and mapping. Each has its own curriculum to best prepare students for transfer to a four-year institution. Interdisciplinary fields can include the study of biomechanics, kinesiology, nutrition and related areas.

Engineering - Industrial
Associate in Arts | Code: 10912 | 60 credits

Miami Dade College offers ten Engineering pathways: architectural, chemical, civil, computer, electrical, industrial, mechanical, ocean, science, and surveying and mapping. Each has its own curriculum to best prepare students for transfer to a four-year institution. Interdisciplinary fields can include the study of biomechanics, kinesiology, nutrition and related areas.

Engineering - Mechanical
Associate in Arts | Code: 10911 | 60 credits

Miami Dade College offers ten Engineering pathways: architectural, chemical, civil, computer, electrical, industrial, mechanical, ocean, science, and surveying and mapping. Each has its own curriculum to best prepare students for transfer to a four-year institution. Interdisciplinary fields can include the study of biomechanics, kinesiology, nutrition and related areas.

Engineering - Ocean
Associate in Arts | Code: 10913 | 60 credits

Miami Dade College offers ten Engineering pathways: architectural, chemical, civil, computer, electrical, industrial, mechanical, ocean, science, and surveying and mapping. Each has its own curriculum to best prepare students for transfer to a four-year institution. Interdisciplinary fields can include the study of biomechanics, kinesiology, nutrition and related areas.

English/Literature & English Education
Associate in Arts | Code: 11500 | 60 credits

The English/Literature & English Education pathway offers a comprehensive foundation in literary analysis, critical thinking, and effective communication skills. This pathway is designed to prepare students for advanced studies or careers in education, writing, and various other fields that value strong language and analytical abilities.

Environmental Sciences
Associate in Arts | Code: 10203 | 60 credits

The Environmental Sciences pathway, is designed to introduce students to post-secondary levels of math, science, humanities, and English composition while also providing students with a basic introduction to concepts specific to environmental science. Students who pursue an associate degree pathway often enter with the intention of transferring into a four-year baccalaureate program.

Exercise Science
Associate in Arts | Code: 12103 | 60 credits

The Exercise Science pathway is designed for students who want to pursue a Bachelor's degree in exercise science. This pathway, if followed, may prepare students for careers in personal fitness, coaching and athletic training, or to advanced professional degrees in sports nutrition, physical therapy and other related professions.

Foreign Language
Associate in Arts | Code: 10301 | 60 credits

Foreign language programs train students to achieve reading, writing and verbal fluency in one or more foreign languages. The demand for interpreters, translators and language instructors is projected to grow in the 21st century, and graduates with Bachelor's degrees can work almost anywhere in the world for corporations, businesses, governments, nonprofit agencies or schools.

Forestry
Associate in Arts | Code: 10101 | 60 credits

Foresters play a critical role in managing our natural resources. One of the greatest strengths of our pathway, if followed, is that it prepares students to apply the principles learned in the classroom to practical and relevant situations now and in the future. The University of Florida is the only State University that offers four baccalaureate degrees (Forest Resources & Conservation, Geomatics, Interdisciplinary Marine Sciences, and Natural Resource Conservation) for student transfer.

Geology
Associate in Arts | Code: 11904 | 60 credits

Geologists study the materials, processes, products, physical nature, and history of the Earth. This pathway provides basic coursework in geology, calculus, biology and chemistry. Some examples of employers of geologists include agencies targeting pollution or urban waste, corporations searching for new sources of petroleum or natural gas and research organizations studying volcanoes or earthquakes.

Graphic or Commercial Arts
Associate in Arts | Code: 11004 | 60 credits

Graphic Arts emphasizes studio courses in design, drawing and digital techniques. Graduates may work in advertising agencies, design studios, exhibit and display businesses, department stores and industrial organizations.

Health Services Administration
Associate in Arts | Code: 11200 | 60 credits

This pathway provides the fundamental science coursework for transfer to a baccalaureate program in health services administration. The Baccalaureate degree prepares students for entry-level management positions in health services delivery organizations. Persons licensed in clinical health often pursue this degree, as do medical care professionals who do not have an undergraduate degree. The Baccalaureate also prepares individuals for graduate study in this field.

History
Associate in Arts | Code: 12202 | 60 credits

History is the study of the events, patterns and cycles that have shaped our present world. Depending on the area of specialization, history may examine political events, social evolution, cultural developments or a combination of these. This pathway prepares students for transfer with courses in American, African-American and Latin American history, and surveys of American, English and world literature. Professional historians (e.g. museum curators and educators) tend to pursue the Doctoral degree, but the Bachelor's degree in history can prepare students for graduate work in law or political science, and apply to careers requiring good writing or analytical skills.

Hospitality Administration/Travel & Tourism
Associate in Arts | Code: 10506 | 60 credits

This field combines traditional business and management education with training specific to the tourism, travel and hospitality industries.

Careers in the hospitality/travel and tourism industry include hotel and Restaurant, food and beverage management, event planning, and managerial positions with cruise ships, airlines, land-based tourism companies, as well as travel agencies.

Interior Design
Associate in Arts | Code: 10201 | 60 credits

The Interior Design pathway, if followed, offers students the fundamentals about construction, design theory and history, communication and business. An interior designer encounters a variety of challenging work, available in professional, institutional and private settings.

International Relations
Associate in Arts | Code: 12205 | 60 credits

Students can obtain the coursework necessary to transfer to four-year programs in international relations, a major which usually includes political science and economics courses. Employment opportunities are available at the baccalaureate level in business, government, journalism and political organizations. Many students, however, go on to pursue graduate work or law school.

Landscape Architecture
Associate in Arts | Code: 10202 | 60 credits

The Landscape Architecture pathway prepares students for transfer by offering courses in architecture, horticulture and botany. Landscape architects plan the arrangement of outdoor areas for public use and enjoyment, making recommendations for the types and location of plantings, circulation, drainage and other harmonizing improvements with existing land features and architectural structures. The University of Florida offers the only in-state program in landscape architecture.

Mass Communications/Journalism
Associate in Arts | Code: 10600 | 60 credits

Mass Communication examines the role of media in society. Coursework includes media criticism and analysis, U.S. history and government, sociology, and a study of the broadcast, cable and Internet industries. Depending upon the student's area of interest, study may also include journalism, television, and radio production. A Bachelor's in mass communication equips one to work in journalism, corporate communication, or in certain business or managerial positions in television or radio.

Mathematics
Associate in Arts | Code: 11700 | 60 credits

The Mathematics pathway emphasizes math and science training, and includes coursework in computer programming. Mathematics is both a science and a tool essential for many kinds of work in industry and business. As a result, employment opportunities for graduates trained in mathematics have expanded rapidly in industries such as aviation and communications, sciences such as oceanography and meteorology, and government agencies such as the U.S. Census Bureau.

Music or Music Education
Associate in Arts | Code: 11001 | 60 credits

Music or Music Education students must be proficient in music theory and music history as well as be a skilled performer. Careers in music include individual and group performance, conducting, composing and teaching. Music graduates may also have jobs working in ancillary professions such as retail, publishing and recording.

Philosophy
Associate in Arts | Code: 11502 | 60 credits

Philosophy investigates the fundamental principles of being, knowledge or conduct. There are numerous systems of philosophical discourse and this pathway introduces students to many of these. Unless a student wishes to earn a Doctorate and teach at the college level, a Bachelor's degree in philosophy is generally useful only in indirect ways. It can prepare students for graduate work in other fields such as law or theology.

Physical Education Teaching & Coaching
Associate in Arts | Code: 10817 | 60 credits

This pathway is designed for students interested in pursuing careers in physical education at the pre-school, elementary, secondary, college or community program level. This curriculum meets the pre-professional and "General Education" course requirements for transfer, but due to variations in prerequisites, students should confer with a departmental advisor. Employment opportunities include teaching, coaching, sports communications, sports psychology, sports history, sports sociology and sports medicine. Target populations include the able-bodied, physically limited and aged, and the environments include educational, governmental, public and/or private settings.

Physics
Associate in Arts | Code: 11900 | 60 credits

Physics is the study of the motion and force of energy and matter. This science is applied to different kinds of energy and matter, as in thermodynamics, astrophysics, nuclear physics and wave motion analysis. This pathway provides a fundamental education in mathematics and science topics so that students may transfer to pursue their area of interest. Careers in research are available both in government agencies and private industries, as well as in educational institutions, though in most cases graduate degrees are required.

Political Science
Associate in Arts | Code: 12206 | 60 credits

Political science examines the role and effects of government actions on society. This pathway prepares students for transfer with coursework in history, literature, economics and government. Political scientists may work in various government jobs, or may work as lobbyists, researchers, political analysts or journalists. In addition to graduate work in the field, a Bachelor's degree in political science also prepares students for law school.

Pre-Bachelor of Arts

Associate in Arts | Code: 14902 | 60 credits

The Pre-Bachelor of Arts pathway at MDC is designed for students who seek a general degree program and greater freedom to explore intellectual fields of their particular interest. This pathway challenges students to assume major responsibility for the direction of their own education. This pathway, if followed, provides a broad range of educational opportunities for students seeking to transfer to an upper division program.

Pre-Law

Associate in Arts | Code: 11400 | 60 credits

Although no specific area of study is mandatory for the Pre-Law major, this pathway offers courses in criminal justice, government, history and business to best prepare a student for future coursework. Students should work with an advisor to determine the best four-year degree to pursue.

Pre-Medical Science/Dentistry

Associate in Arts | Code: 11211 | 60 credits

This pathway is designed to meet the first two years of required courses for students planning careers in medicine and dentistry. Pre-medical education should include a foundation in chemistry, biology, mathematics, and physics, as well as a broad education in the humanities and social sciences. This pathway enables the student to transfer to colleges or universities that offer a Baccalaureate degree in physician assistant (PA), or other pre-medical degrees such as biology. Admission to a professional school is dependent upon academic coursework and scores on a national test. Applicants should have a minimum "B" average.

Pre-Medical Technology

Associate in Arts | Code: 11209 | 60 credits

This pathway provides the science coursework necessary to transfer to a four-year baccalaureate program. Students must transfer to an upper-division institution for the third year. Generally, the fourth year is spent in a clinical setting, usually in a hospital where students learn laboratory techniques. Members of this profession work in clinical laboratories performing the wide variety of tests which aid physicians in the diagnosis and treatment of patients. Most medical technologists work in hospitals, physician's public health laboratories, universities, or in industry.

Pre-Nursing

Associate in Arts | Code: 11203 | 60 credits

This pathway degree does not prepare students to be eligible to take certification/licensure exams or to practice in the Nursing profession. This pathway includes the pre-professional courses necessary for admission to a Bachelor of Science degree program in nursing (BSN). This pathway consists of general education and science courses. The professional nursing courses are taken in the last two years at the upper division. Upper-division programs are limited access, require an above average academic record, and have widely differing pre-professional course requirements. Therefore, students are advised to check with the Nursing Department of the senior institution they wish to attend. Most upper-division programs also offer a track for registered nurses (RNs) completing an Associate in Science degree to earn a BSN degree.

Pre-Occupational Therapy

Associate in Arts | Code: 11204 | 60 credits

Occupational therapists use creative/recreational activities and manual skills to evaluate and treat physical and mental illnesses. This pathway prepares students for transfer by offering courses in human anatomy and physiology, human behavior, growth and development, along with more basic science courses. Employment possibilities include civilian, military, and government hospitals, rehabilitation centers, long-term and extended care facilities, community mental health centers, and clinics for the physically limited.

Pre-Optometry

Associate in Arts | Code: 11205 | 60 credits

This pathway provides the fundamental science coursework necessary to transfer to a four-year institution, where students can obtain a degree in an appropriate field, such as biology. To be an optometrist, one must earn the Doctor of Optometry professional degree. A Bachelor's degree with a strong science background is required for admission. Graduates must pass a state licensure exam in order to practice. Optometrists prescribe glasses, contact lenses and visual therapy, and offer non-surgical treatment of eye diseases and the rehabilitation of patients with visual disabilities

Pre-Pharmacy

Associate in Arts | Code: 11206 | 60 credits

The Pre-Pharmacy pathway provides the math and science education needed to transfer to a baccalaureate program. Career opportunities in pharmacy include positions in a hospital or institutional pharmacy, in industry or manufacturing, in a retail or clinical pharmacy, in government service, in pharmacy administration, in laboratories and in pharmaceutical journals.

Pre-Physical Therapy

Associate in Arts | Code: 11207 | 60 credits

The A.A. degree does not prepare students to be eligible to take certification/licensure exams or to practice in the Physical Therapy profession. This pathway prepares students for transfer by providing intensive coursework in mathematics and science. Most baccalaureate programs have selective admissions and transfer requirements vary, so students should work with an advisor in planning a program of study. Physical therapists (PTs) are movement experts who improve quality of life through prescribed exercise, hands-on care, and patient education. After making a diagnosis, physical therapists create personalized treatment plans that help their patients improve mobility, manage pain and other chronic conditions, recover from injury, and prevent future injury and chronic disease. (www.APTA.org). They work in healthcare settings such as hospitals, home care, nursing homes, and outpatient facilities.

Pre-Veterinary Medicine
Associate in Arts | Code: 11208 | 60 credits

Veterinary medicine is the study of the diagnosis, treatment and control of disease and injuries among animals. Veterinarians may specialize in the health and breeding of certain animals, performing surgery, prescribing and administering drugs and vaccines, and research. Veterinarians may also concentrate on the inspection of meat, poultry and other foods as part of federal and state public health programs. The University of Florida is the only state school that offers a veterinary program.

Psychology
Associate in Arts | Code: 12001 | 60 credits

Psychology is the science of human behavior and mental processes that affect mental and physical health. Students intending to transfer to a four-year institution will need preparation in coursework covering mathematics and science. . While the Bachelor's degree in psychology could be useful in a number of careers, professional psychologists must continue to graduate study. Employment opportunities with a Doctorate or a Masters' degree include teaching or counseling in a wide variety of settings.

Public Administration
Associate in Arts | Code: 12100 | 60 credits

This is an interdisciplinary pathway gearing the combined study of business, government and economics toward a career in the public sector. Although some students pursue graduate degrees, those with Bachelor's degrees may obtain work managing budgets, or developing programs and policies in government, education and nonprofit settings.

Recreation
Associate in Arts | Code: 12101 | 60 credits

To prepare for upper-division work in recreation, students take courses in accounting, economics, and human anatomy and physiology, and health sciences. This curriculum meets the pre-professional and general education course requirements for transfer, but due to variations in upper-division requirements, students should confer with an advisor. Recreation professionals often work in youth agencies, but may also develop careers in industries such as healthcare, fitness, and travel and tourism.

Religion
Associate in Arts | Code: 11503 | 60 credits

This pathway is designed to provide students with a broad introduction to the academic study of religion. If followed, this pathway offers basic coursework in world and western religions, as well as an array of history courses. Students who wish to pursue a bachelor's degree in religion, theology or other religious studies may transfer to an institution offering a degree in religious or theological studies.

Social Work
Associate in Arts | Code: 12102 | 60 credits

This pathway prepares students for upper-division education in social work by offering courses in science and sociology. Social workers provide the link between organized social services and individuals and families unable to provide for themselves or needing assistance in problem solving. Potential employers include hospitals, mental health centers, rehabilitation centers, government agencies, schools and correctional institutions.

Sociology
Associate in Arts | Code: 12203 | 60 credits

Sociology is the systematic study of human interaction, that is, society, social relationships, social structures and social change. Coursework emphasizes liberal arts topics such as literature, cultural anthropology, theatre appreciation and history, as well as introductory courses in sociology. Graduates with a Bachelor's degree can work within community organizations, government agencies and the criminal justice field. Many students go on to pursue graduate degrees and work in social policy, public administration, law, government or social services.

Speech Pathology & Audiology
Associate in Arts | Code: 11501 | 60 credits

This pathway provides fundamental coursework in biology and communications so that students may transfer to a four-year institution. The curriculum leading to the Baccalaureate degree is usually designed as pre-professional education for a graduate program. Speech language pathologists and audiologists provide clinical services to individuals with speech, language and hearing impairments. Eligibility for the Certificate of Clinical Competence from the American Speech-Language-Hearing Association and state licensure are not possible until requirements for the graduate degree are met.

Teaching (Elementary)
Associate in Arts | Code: 10802 | 60 credits

This pathway prepares students to major in elementary education by presenting the general education and education curriculum necessary to earn a baccalaureate degree. This pathway can be used for transfer to Florida colleges and universities. Areas of specialization include elementary, pre-elementary/early childhood, exceptional student, and secondary education. Students should work with an advisor to determine the appropriate coursework for transfer into their intended area of study.

Teaching (Exceptional Student Education)
Associate in Arts | Code: 10804 | 60 credits

This pathway prepares students to major in exceptional student education by presenting the general education courses and education curriculum necessary to earn a baccalaureate degree. This pathway can be used for transfer to Florida colleges and universities or for Miami Dade College's (MDC) BS in Exceptional Student Education. Areas of specialization include elementary, pre-elementary/early childhood, exceptional student and secondary education. Students should work with an advisor to determine the appropriate coursework for transfer into their intended area of study.

Teaching (Pre-Elementary/Early Childhood)
Associate in Arts | Code: 10809 | 60 credits

This pathway prepares students to major in early childhood education (birth to age 4) by presenting the general education and early childhood and education curriculum necessary to earn a baccalaureate degree. This pathway can be used for transfer to Florida colleges and universities. Areas of specialization include elementary, pre-elementary/early childhood. Students should work with an advisor to determine the appropriate coursework for transfer into their intended area of study.

Teaching (Secondary)
Associate in Arts | Code: 10810 | 60 credits

This pathway prepares students to major in various subject areas in education by offering the general education and education courses necessary for transfer to earn a baccalaureate degree. This pathway can be used for transfer to Florida colleges and universities. Available areas of specialization in secondary education are biology, chemistry, earth/space science, English and foreign language, mathematics, physics and social science. Students should work with an advisor to determine the appropriate coursework for transfer into their intended area of study.

Teaching Secondary (Biology)
Associate in Arts | Code: 10815 | 60 credits

This pathway prepares students to major in secondary biology education by presenting the science, general education and education curriculum necessary to earn a baccalaureate degree. This pathway can be used for transfer to Florida colleges and universities. Students should work with an advisor to determine the appropriate coursework for transfer into their intended area of study.

Teaching Secondary (Chemistry)
Associate in Arts | Code: 10814 | 60 credits

This pathway prepares students to major in secondary chemistry education by presenting the science, general education and education curriculum necessary to earn a baccalaureate degree. This pathway can be used for transfer to Florida colleges and universities. Students should work with an advisor to determine the appropriate coursework for transfer into theirintended area of study.

Teaching Secondary (Earth/Space)
Associate in Arts | Code: 10813 | 60 credits

This pathway prepares students to major in secondary earth/space science education by presenting the science, general education and education curriculum necessary to earn a baccalaureate degree. This pathway can be used for transfer to Florida colleges and universities. Students should work with an advisor to determine the appropriate coursework for transfer into their intended area of study.

Teaching Secondary (English/Foreign Languages)
Associate in Arts | Code: 10808 | 60 credits

This pathway prepares students to major in secondary foreign language education by presenting the general education and education curriculum necessary to earn a baccalaureate degree. This pathway can be used for transfer to Florida colleges and universities. Students should work with an advisor to determine the appropriate coursework for transfer into their intended area of study.

Teaching Secondary (Mathematics Education)
Associate in Arts | Code: 10812 | 60 credits

This pathway prepares students to major in secondary mathematics education by presenting the mathematics, general education, and education curriculum necessary to earn a baccalaureate degree. This pathway can be used for transfer to Florida colleges and universities. Students should work with an advisor to determine the appropriate coursework for transfer into their intended area of study.

Teaching Secondary (Physics)
Associate in Arts | Code: 10816 | 60 credits

This pathway prepares students to major in physics education by presenting the science, general education and education curriculum necessary to earn a baccalaureate degree. This pathway can be used for transfer to Florida colleges and universities. Students should work with an advisor to determine the appropriate coursework for transfer into their intended area of study.

Teaching Secondary (Social Science)
Associate in Arts | Code: 10806 | 60 credits

This pathway prepares students to major in secondary social science education by presenting the general education and education curriculum necessary to earn a baccalaureate degree. This pathway can be used for transfer to Florida colleges and universities. Students should work with an advisor to determine the appropriate coursework for transfer into their intended area of study.

Teaching Secondary (Vocational: Business, Technical, Home)
Associate in Arts | Code: 10803 | 60 credits

This pathway prepares students to major in vocational education by presenting the general education and education curriculum necessary to earn a baccalaureate degree. This pathway can be used for transfer to Florida colleges and universities. Areas of specialization agriculture, business, home economics and technical coursework. Students should work with an advisor to determine the appropriate coursework for transfer into their intended area of study.

Associate in Arts (AA) Pathway Guide

Miami Dade College

ASSOCIATE IN ARTS DEGREE PATHWAY GUIDE
Effective Term: Fall 2025

COMMUNICATIONS 6 Credits*
State Core:
ENC 1101 English Composition 1 (W)
MDC Core:
ENC 1102 English Composition 2 (W)

ORAL COMMUNICATIONS 3 Credits*
Select 1 course from the following.
ENC 2300 Advanced Composition and Communications (W)
SPC 1017 Introduction to Communication (W)
SPC 2608 Introduction to Public Speaking (W)

MATHEMATICS 6 Credits*
Select at least 1 course from the 4 State Core options. Lab Credits are not allowed in this area.

State Core 3 Credits
1. MAC 1105 College Algebra (C)
2. MAC 2311 Calculus and Analytical Geometry 1 (C)
3. MGF 1130 Mathematical Thinking (C)
4. STA 2023 Statistical Methods (C)

MDC Core 3 Credits
MAC 1105 College Algebra (C)
MAC 1106 Integrate (C)
MAC 1114 Trigonometry (C)
MAC 1140 Pre-Calculus Algebra (C)
MAC 1147 Pre-Calculus Algebra and Trigonometry (C)
MAC 2233 Business Calculus (C)
MAC 2311 Calculus and Analytical Geometry 1 (C)
MAC 2312 Calculus and Analytical Geometry 2 (C)
MAC 2313 Calculus and Analytic Geometry 3 (C)
MAD 1100 Discrete Mathematics for Computer Science (C)
MAD 2104 Discrete Mathematics (C)
MAP 2302 Introduction to Differential Equations (C)
MAS 2103 Elementary Linear Algebra (C)
MGF 1130 Mathematical Thinking (C)
MGF 1131 Mathematics in Context (C)
QMB 2100 Basic Business Statistics (C)
STA 2023 Statistical Methods (C)

HUMANITIES 6 Credits*
Select at least 1 course from the 6 State Core options.

State Core 3 Credits
1. ARH 1000 Art Appreciation
2. HUM 1020 Humanities
3. LIT 2000 Introduction to Literature (W)
4. MUL 1010 Music Appreciation
5. PHI 2010 Introduction to Philosophy (W)
6. THE 2000 Theatre Appreciation (W)

MDC Core 3 Credits
ARC 2701 History of Architecture 1
ARC 2702 History of Architecture 2 (W)
ARH 1000 Art Appreciation
ARH 2050 Art History 1
ARH 2051 Art History 2 (W)

ARH 2740	Cinema Appreciation (W)
DAN 2100	Dance Appreciation
DAN 2130	Dance History 1 (W)
HUM 1020	Humanities
LIT 2000	Introduction to Literature (W)
LIT 2120	A Survey of World Literature (W)
MUH 2111	Survey of Music History 1
MUH 2112	Survey of Music History 2 (W)
MUL 1010	Music Appreciation
MUL 2380	Jazz and Popular Music in America (W)
PHI 2010	Introduction to Philosophy (W)
PHI 2600	Introduction to Ethics (W)
THE 2000	Theater Appreciation (W)

SOCIAL SCIENCES 6 Credits*
Select at least 1 course from the 6 State Core options. To meet the Civic Literacy Competency Requirement for graduation one course selection should be AMH 2010 or AMH 2020 or POS 2041.

State Core 3 Credits

1.	AMH 2010	History of the US to 1877
2.	AMH 2020	History of the US Since 1877
3.	ANT 2000	Introduction to Anthropology
4.	ECO 2013	Principles of Economics (Macro) (W)
5.	POS 2041	American Federal Government
6.	PSY 2012	Introduction to Psychology

MDC Core 3 Credits

AMH 2010	History of the US to 1877
AMH 2020	History of the US Since 1877
ANT 2000	Introduction to Anthropology
DEP 2000	Human Growth and Development
ECO 2013	Principles of Economics (Macro) (W)
POS 2041	American Federal Government
PSY 2012	Introduction to Psychology
SYG 2000	Introduction to Sociology
WOH 2012	History of World Civilization to 1789
WOH 2022	History of World Civilization From 1789

NATURAL SCIENCES 6 Credits*
Select at least 1 course from the 13 State Core options. Lab Credits are not allowed in this area.

State Core 3 Credits

1.	AST 1002	Descriptive Astronomy
2.	BSC 1005	General Education Biology
3.	BSC 2010	Principles of Biology
4.	BSC 2085	Human Anatomy and Physiology I
5.	CHM 1020	General Education Chemistry
6.	CHM 1045	General Chemistry & Qualitative Analysis
7.	ESC 1000	General Education Earth Science
8.	EVR 1001	Introduction to Environmental Science
9.	GLY 1010	Physical Geology
10.	OCE 1001	Introduction to Oceanography
11.	PHY 1020	General Education Physics
12.	PHY 2048	Physics with Calculus 1
13.	PHY 2053	Physics (without Calculus) 1

MDC Core 3 Credits

AST 1002	Descriptive Astronomy
BOT 1010	Botany
BSC 1005	General Education Biology
BSC 1084	Functional Human Anatomy
BSC 2010	Principles of Biology
BSC 2020	Human Biology: Fundamentals of Anatomy/Physiology
BSC 2085	Anatomy and Physiology I

CHM1020	General Education Chemistry
CHM1025	Introductory Chemistry
CHM1033	Chemistry for Health Sciences
CHM1045	General Chemistry and Qualitative Analysis
CHM1046	General Chemistry and Qualitative Analysis
CHM2200	Survey of Organic Chemistry
CHM2210	Organic Chemistry 1
CHM2211	Organic Chemistry 2
ESC 1000	General Education Earth Science
EVR 1001	Introduction to Environmental Science
GLY 1010	Physical Geology
GLY1100	Historical Geology
HUN 1201	Essentials of Human Nutrition
MET1010	Introduction to Weather
OCB 1010	Introduction to Marine Biology
OCE 1001	Introduction to Oceanography
PHY1004	Physics with Applications 1
PHY1020	General Education Physics
PHY1025	Basic Physics
PHY2048	Physics with Calculus 1
PHY2049	Physics with Calculus 2
PHY2053	Physics (without Calculus) 1
PHY2054	Physics (without Calculus) 2
PSC 1121	General Education Physical Science
PSC 1515	Energy in the Natural Environment

GENERAL EDUCATION ELECTIVE 3 Credits
Select at least 1 course from the following options.

AMH2010	BSC2010L	CHM2211	GLY1010	MAP2302	PHY2054L
AMH2020	BSC2011	CHM2211L	GLY1010L	MAS2103	POR1120
AMH2035	BSC2011L	CLP2000	GLY1100	MCB2010	POR1121
AML2010	BSC2020	CRW2001	HLP1081	MCB2010L	POS2041
AML2020	BSC2085	CRW2002	HUM1020	MET1010	POS2112
ANT2000	BSC2085L	DAN2100	HUN1201	MGF1130	PSC1121
ARC2701	BSC2086	DAN2130	INR2002	MGF1131	PSC1515
ARC2702	BSC2086L	DAN2131	ITA1120	MUH2111	PSY2012
ARH1000	BSC2426	DEP2000	ITA1121	MUH2112	QMB2100
ARH2050	BSC2426L	DEP2100	JPN1120	MUL1010	REL1210
ARH2051	BSC2427	ECO2013	JPN1121	MUL2380	REL1240
ARH2740	BSC2427L	ECO2023	LAH2021	OCB1010	RUS1120
ASL1140C	CHI1120	ECO2301	LIT2000	OCE1001	RUS1121
ASL1150C	CHI1121	EDF1005	LIT2090	PHI1100	SOP2002
ASL2210	CHM1020	ENC1101	LIT2120	PHI2010	SPC1017
ASL2220	CHM1025	ENC1102	MAC1105	PHI2600	SPC2601
ASL2400	CHM1025L	ENC2300	MAC1105L	PHY1004	SPC2608
ASL2430	CHM1033	ENG2012	MAC1106	PHY1004L	SPN1120
ASL2510	CHM1033L	ENL2012	MAC1114	PHY1020	SPN1121
AST1002	CHM1045	ENL2022	MAC1140	PHY1025	STA2023
BOT1010	CHM1045L	ESC1000	MAC1147	PHY2048	SYG2000
BOT1010L	CHM1046	EUH2032	MAC2233	PHY2048L	THE2000
BOT2150C	CHM1046L	EVR1001	MAC2311	PHY2049	WOH2012
BSC1005	CHM2200	FRE1120	MAC2312	PHY2049L	WOH2022
BSC1005L	CHM2200L	FRE1121	MAC2313	PHY2053	
BSC1084	CHM2210	GER1120	MAD1100	PHY2053L	
BSC2010	CHM2210L	GER1121	MAD2104	PHY2054	

FIRST YEAR EXPERIENCE
SLS 1106 First Year Experience Seminar
OR
One of the courses below based on advisor's recommendation:
IDH 1001 Honors Leadership Seminar 1
IDH 1002 Honors Leadership Seminar 2
IDH 2003 Honors Leadership Seminar 3

IDH 2004	Honors Leadership Seminar 4
SLS 1125	Student Support Seminar
SLS 1401	Psychology of Career Adjustment
SLS 1502	College Study Skills
SLS 1505	College Survival Skills
SLS 1510	Preparing for Student Success

PATHWAY ELECTIVES 24 Credits
Elective courses should be selected by pathway and/or specialization. Consult with an advisor. Also refer to information available at your Transfer Institution of choice. General education courses that are not used to meet general education requirements may be used for pathway electives in this block.

FOREIGN LANGUAGE COMPETENCY
May be satisfied by Foreign Language Competency (FLC) standardized examinations. For more information, refer to Foreign Language Competency.
OR

ASL 1150C	FRE 1121	ITA 1121	POR 1121	SPN 1121
CHI 1121	GER 1121	JPN 1121	RUS 1121	

COMPUTER COMPETENCY
By the 16th earned college-level credit, students must attempt the computer competency requirement OR by the 31st earned college-level credit, students must satisfy the requirement (CGS1060C, an equivalent college credit course or the College's approved computer competency test). For more information, see Computer Competency.

CHM 1025
The Chemistry Advanced Readiness Test (CART) is an opportunity for eligible students to bypass CHM1025. Review the MDC CART webpage for eligibility.

CIVIC LITERACY COMPETENCY
Associate in arts or baccalaureate degree students entering a Florida College System (FCS) or State University System (SUS) institution in the 2021-2022 academic school year and thereafter and Associate in Science degree students entering a Florida College System (FCS) or State University System (SUS) institution in the 2022-2023 academic school year and thereafter must demonstrate competency through successful completion of a civic literacy course (AMH 2010 or AMH 2020 or POS 2041) AND by achieving a passing score on the Florida Civic Literacy Examination (FCLE). First-time-in-college students who entered between Fall 2018 and Summer 2021 will continue to have the option of passing a course or an approved assessment.
For more information regarding the Florida Civic Literacy Requirement, go to Civic Literacy Competency.

60 CREDITS REQUIRED FOR GRADUATION

General Education: 36 Credits
State Core: 15 Credits
MDC Core: 21 Credits

Pathway Electives
24 Credits
For more information regarding General Education Course Options, refer to Rule 6A-14.0303, General Education Course Options.

GENERAL EDUCATION CORE COURSE STANDARDS
1. **Communication** courses must afford students the ability to communicate effectively, including the ability to write clearly and engage in public speaking.
2. **Humanities** courses must afford students the ability to think critically through the mastering of subjects concerned with human culture, especially literature, history, art, music, and philosophy, and must include selections from the Western canon.
3. **Mathematics** courses must afford students a mastery of foundational mathematical and computation models and methods by applying such models and methods in problem solving.
4. **Natural Science** courses must afford students the ability to critically examine and evaluate the principles of the scientific method, model construction, and use the scientific method to explain natural experiences and phenomena.
5. **Social Science** courses must afford students an understanding of the basic social and behavioral science concepts and principles used in the analysis of behavior and past and present social, political, and economic issues.

MDC Advisement & Career Services Offices

Hialeah Campus | Room 2101 | 305-237-8794
Padrón Campus | Room 1101 | 305-237-6133
Medical Campus | Room 1223 | 305-237-4141
Wolfson Campus |Room 2301 | 305-237-3077
Meek Center | Room 1102-02 | 305-237-1900
Homestead Campus | Room C210 | 305-237-5046
Kendall Campus | Room R243 | 305-237-2125
North Campus | Room 1104 | 305-237-1425
West Campus | Room 2114 | 305-237-8947
Call Center | 305-237-8888 | mdcinfo@mdc.edu

Important Information

The official graduation requirements are on the Academic Requirements page in MDConnect at mdconnect.mdc.edu. You are encouraged to visit Advisement for assistance with your degree requirements.
Other Assessment Procedures for College-Level Communication and Computation Skills (6A-10.030) (often referenced as Gordon Rule) requires:

W = Writing Intensive Course: Six (6) semester hours of English coursework and six (6) semester hours of additional coursework in which the student is required to demonstrate college-level writing skills through multiple assignments.

C = Computational Course: Six (6) semester hours of mathematics coursework at the level of college algebra or higher.

*General education courses require a grade of C or higher to satisfy the requirement.
W = Writing Intensive Course
C = Computational Course

Effective term depends on your most recent term of admission to the College. Students admitted to the College prior to Fall 2024 can view their effective term on the Academic Requirements page in MDConnect at mdconnect.mdc.edu.

ASSOCIATE IN SCIENCE DEGREE (AS)

The two-year Associate in Science (AS) degree is designed for individuals looking for specialized study at the college level leading to immediate entry into a career upon graduation. The A.S. degree programs are comprised mostly of courses directly related to the identified career area. The remaining courses are comprised of general education courses such as English, oral communications, math/science, behavioral/social science and humanities.

Upon successful completion of all MDC and program requirements, students may be awarded multiple AS degrees as appropriate, provided the degrees do not share the same classification of instructional program (CIP) code.

Several of the AS degree programs are covered by a statewide articulation agreement that allows transfer to the corresponding bachelor's degree program at Florida public universities (refer to FLVC.org for the Statewide Articulation Manual information). In addition, many of the other AS degree programs have established articulation agreements with selected universities.

The general education component of the AS degree is transferable to the upper divisions. Health Science & Nursing programs are offered at the Medical Campus. Any students interested in any of the Health Science programs are encouraged to consult advisors in the New Student Center to receive the most current information regarding program admission.

STUDENTS SHOULD CHECK THEIR INDIVIDUALIZED DEGREE AUDIT REPORT TO DETERMINE THE SPECIFIC GRADUATION POLICIES IN EFFECT. REQUIREMENTS MAY CHANGE BASED ON THE YEAR AND TERM A STUDENT ENTERS MIAMI DADE COLLEGE. THE DEGREE AUDIT REPORT INCLUDES CURRENT GRADUATION REQUIREMENTS. THE FINAL RESPONSIBILITY FOR MEETING GRADUATION REQUIREMENTS STATED IN THE DEGREE AUDIT REPORT RESTS WITH THE STUDENT.

Accounting Technology

Associate in Science | Code: 25022 | 60 credits

The Accounting Technology program is designed mainly for students who intend to seek immediate employment in the field of accounting and for those presently employed in business but seeking advancement. Completion of this program prepares the student for employment as a paraprofessional in the accounting field. Instruction emphasizes accounting competencies required at the entry-level while also providing the student with a broad business overview and the required general education courses. The Associate in Arts degree is also available to the student planning to transfer to a senior institution after graduation from Miami Dade College. Please consult a business advisor about additional courses for such plans.

Animation & Game Art

Associate in Science | Code: 25074 | 60 credits

The Animation & Game Art is an intensive hands on program in which students learn narrative structure along with technical skills required in the animation industry. Students learn character design and animation, 3D modeling, storyboarding and environment design. Graduates are prepared for entry level jobs as 3D artist and animators.

Applied Artificial Intelligence

Associate in Science | Code: 25080 | 60 credits

The Associate in Science in Applied Artificial Intelligence introduces learners to the importance of managing the lifecycle of an artificial intelligence (AI) project and ethical considerations relevant to its design and implementation. It offers hands-on learning on the applications of AI and case studies. Students also learn concepts and popular tools such as machine learning, data collection, classification, natural language processing, the functions of AI virtual assistants, and techniques used in AI for computer vision as domains to build AI solutions. The program is geared for those who want to enter or upskill into the field as AI Developers or AI Specialists.

Architectural Design & Construction Technology

Associate in Science | Code: 26034 | 66 credits

The Architectural Design and Construction Technology program offers courses that enable the student to translate the design and systems of the architect into graphic and written form and assists the professional in rendering architectural services. The attainment of these skills qualifies the student for several specialties, such as, architectural drafting, cost estimating, material selecting, specification writing and preparing presentations, drawings & models.

Aviation Administration

Associate in Science | Code: 26028 | 60 credits

The Aviation Administration program is designed to prepare students to succeed in the dynamic aviation industry. The program focuses on the necessary entry-level skills for most aviation employment fields. The Air Traffic Control option provides students with the opportunity to be hired with the Federal Aviation Administration (FAA). Accordingly, graduates find opportunities in airline sales and reservations, air cargo, airport operations and many data-entry positions required by the airline management. Contact the Aviation Department at (305) 237-5950 for information and advisement.

Aviation Maintenance Management

Associate in Science | Code: 26027 | 83 credits

The Aviation Maintenance Management is a special program in which 45 semester hours are awarded to students who possess

the Federal Aviation Administration Aircraft and Powerplant (A & P) certificate. The 38 additional required credits consist of general education and aviation requirements needed by the licensee for the Associate in Science degree. Contact the Aviation Department at (305) 237-5950 for information and advisement.

Biomedical Engineering Technology

Associate in Science | Code: 26053 | 62 credits

The Biomedical Engineering Technology program prepares students for employment as Biomedical Engineering Technicians/ Technologists and in related occupations in health-related fields. The program also provides supplemental training for persons currently or previously employed in these occupations. The program focuses on the understanding and applying of concepts in electronics, in addition to troubleshooting techniques, to digital, microprocessor, or computer-based systems as they relate to medical devices. Assembly, installation, operations maintenance, calibration, trouble-shooting, repairing and elementary design on medical systems are taught using an integrated, applied and theoretical approach.

Biotechnology

Associate in Science | Code: 22027 | 61 credits

The Biotechnology Program will expose students to a breadth of topics and emphasizes hands-on learning in a variety of techniques and procedures necessary for employment in the bioscience industry. The Program includes modules designed to enhance critical thinking and technical communication skills. It focuses on developing broad transferable skills and stresses understanding and demonstration of laboratory/industry protocols and regulations, bio-safety and safe operating procedures, ethical and environmental issues, product generation/formulation, quality control, validation, instrumentation, and computing.

Biotechnology - Bioinformatics

Associate in Science | Code: 22028 | 61 credits

The Biotechnology Program will expose students to a breadth of topics and emphasizes hands-on learning in a variety of techniques and procedures necessary for employment in the bioscience industry. The Program includes modules designed to enhance critical thinking and technical communication skills. It focuses on developing broad transferable skills and stresses understanding and demonstration of laboratory/industry protocols and regulations, bio-safety and safe operating procedures, ethical and environmental issues, product generation/formulation, quality control, validation, instrumentation, and computing.

Biotechnology - Chemical Technology

Associate in Science | Code: 22029 | 61 credits

The Biotechnology Program will expose students to a breadth of topics and emphasizes hands-on learning in a variety of techniques and procedures necessary for employment in the bioscience industry. The Program includes modules designed to enhance critical thinking and technical communication skills. It focuses on developing broad transferable skills and stresses understanding and demonstration of laboratory/industry protocols and regulations, bio-safety and safe operating procedures, ethical and environmental issues, product generation/formulation, quality control, validation, instrumentation, and computing.

Building Construction Technology

Associate in Science | Code: 26033 | 60 credits

The Building Construction Technology program is designed to furnish technically trained personnel for the building construction industry. The graduate may work with a contractor as part of the administrative team in such entry-level job positions as those leading to estimators, job coordinators, or project managers. Technical jobs may also be available in the following areas: land and project developers; technical sales for building materials, systems, and equipment; with local, state, and federal government agencies; as well as various financial institutions.

Business Administration

Associate in Science | Code: 25051 | 60 credits

This program transfers to four-year institutions. See department for information. The Business Administration program trains individuals to assume management or supervisory positions in business, industry, and government. It provides basic skills in a broad range of business functions including accounting, computer usage, management and marketing. Successful completion of this program earns the student entry into any university in the State University System as part of the A.S. to B.S. program

Business Intelligence Specialist

Associate in Science | Code: 25073 | 60 credits

The Associate in Science in Business Intelligence Specialist prepares students for employment as business intelligence analysts and related occupations and/or for upper division studies in data analytics. Business intelligence is a broad category of application programs and technologies for gathering, storing, analyzing, and providing access to data to help enterprise users make improved business decisions. Students will learn how to build business intelligence applications and how to manipulate massive amounts of data, turning it into useful information and reports.

Civil Engineering Technology

Associate in Science | Code: 26035 | 63 credits

The Civil Engineering Technology program is designed for those students who wish immediate job placement prior to or after graduation. This program also satisfies many of the civil engineering freshman and sophomore requirements for the Bachelor of Engineering Technology degree offered by certain universities. Consult your Civil Engineering advisor prior to registration.

Clinical Laboratory Sciences

Associate in Science - Health Sciences | Code: 23024 | 76 credits

The Clinical Laboratory Sciences program prepares the graduate to work as part of the health care delivery team in a nonprofit clinical laboratory or research laboratory. Clinical practice is conducted

in local health care facilities under the supervision of qualified registered professional personnel. Graduates are eligible for Florida State Licensure and Registry with the American Society of Clinical Pathologists and equivalent licensure.

Computer Crime Investigation
Associate in Science | Code: 27028 | 60 credits

The Associate in Science (AS) in Computer Crime Investigation will prepare graduates with the education and skills needed to fulfill roles and positions in the Information Security industry. The coursework will include education and applied technical skills in the criminal justice and information security fields.

Computer Engineering Technology
Associate in Science | Code: 26052 | 68 credits

The Computer Engineering Technology program prepares students for employment as computer engineering technicians/technologists and in related occupations in electronics. It also provides supplemental training for persons currently or previously employed in these occupations. The program focuses on the understanding and applying of hardware and software concepts, in addition to troubleshooting techniques to digital, microprocessor or computer-based systems. Assembly, installation, operation, maintenance, calibration, troubleshooting, repairing and elementary designs of medical systems are taught using an integrated and theoretical approach.

Computer Information Technology
Associate in Science | Code: 25055 | 60 credits

The Computer Information Technology program is to provide an opportunity to establish a basic foundation in computer applications. Graduates are prepared for positions as microcomputer support specialists, user support specialists, applications system specialists and computer information managers to meet the demands of today's automated offices. In addition, program objectives are designed to assist students in their development of interpersonal and communication skills required by office professionals.

Computer Programming and Analysis - Business Applications Programming
Associate in Science | Code: 25065 | 60 credits

The Computer Programming and Analysis program provides an opportunity to establish a basic foundation in computer programming in scientific, commercial, industrial and government data processing applications. Graduates are prepared for positions as entry-level application programmers, programmer specialists, computer programmers and programmer analysts.

Computer Programming and Analysis – Internet of Things (IoT) Applications
Associate in Science | Code: 25076 | 60 credits

The Computer Programming and Analysis program provides an opportunity to establish a basic foundation in computer programming in scientific, commercial, industrial and government data processing applications. The IoT Applications concentration additionally offers the acquisition of a skill-set that leads to producing connected devices by developing applications that can run on microcontroller development boards, designing and simulating the functioning of the devices, and building physical prototypes. Graduates are prepared for positions as entry-level application programmers, rapid prototyping assistants, programmer specialists, embedded software developers, IoT consultants, and connected devise support specialists.

Computer Programming and Analysis - Mobile Applications Development
Associate in Science | Code: 25070 | 60 credits

The Computer Programming and Analysis program provides an opportunity to establish a basic foundation in computer programming in scientific, commercial, industrial and government data processing applications. The Mobile Applications Development concentration offers hands on instruction with current technology for Apple and Android mobile device platforms. Graduates are prepared for positions as entry-level app developers.

Crime Scene Technology - Crime Scene Investigation
Associate in Science | Code: 27026 | 60 credits

The Associate in Science Degree in Crime Scene Technology will prepare students for employment in the field of criminalistics with a specialty in Crime Scene Investigation or Forensic Science. The student can serve as, but is not limited to, positions of Forensic Science Technician (SOC 194092), Crime Scene Technician, Medical Examiner Investigator, Medical Investigator, Insurance Investigator, Legal Investigator, Forensic Paralegal, Crime Scene Investigator, and Laboratory Technician. Students may also continue their formal education with the College and receive a BAS in Public Safety Management.

Crime Scene Technology - Forensic Science
Associate in Science | Code: 27027 | 60 credits

The Associate in Science Degree in Crime Scene Technology will prepare students for employment in the field of criminalistics with a specialty in Forensic Science. Graduates can serve as, but are not limited to, positions as a Forensic Science Technician, Crime Scene Technician, Medical Examiner Investigator, Medical Investigator, Insurance Investigator, Legal Investigator, Forensic Paralegal, Crime Scene Investigator, and Laboratory Technician. Students may also continue their formal education with the College and receive a BAS in Public Safety Management.

Criminal Justice Technology
Associate in Science | Code: 27012 | 60 credits

Upon completion of the Criminal Justice Technology program, the student will be eligible for the Associate in Science degree. The A.S. degree opens up entry-level non-sworn positions in local, state and

federal agencies, i.e., juvenile justice, private security, law enforcement, corrections, probation and parole, detention centers and community based intervention programs.

Culinary Arts Management

Associate in Science | Code: 22031 | 60 credits

The Associate in Science degree will groom individuals for careers in the widely varied areas of the culinary industry, including production line and supervisory positions. This competency based culinary program will provide the student with a unique combination of comprehensive theoretical knowledge and hands-on training. Students will master the fundamentals of culinary production in an environment that builds teamwork while gaining practical individualized experiences. The course content includes food and menu preparation and service; identification, storage, selection and presentation of foods; training in communication, leadership, team building, and employability skills; and sanitation and safe work practices. Earning a degree will enable students to pursue further education at the university level or begin working in the field immediately upon graduation.

Cybersecurity

Associate in Science | Code: 25079 | 60 credits

The Cybersecurity program prepares students to fill a critical and growing need for cybersecurity personnel through hands-on experience along with simulation training and group/team-based learning to simulate a professional work environment. The program covers a wide range of topics including cybersecurity fundamentals, computer forensics and network security. Upon completion of the program, the student will have learned to evaluate security trends, recognize best practices, and understand IT security products and threats. Additionally, the curriculum is designed to aid students in preparing for many of the certification exams in the field.

Database Technology - Oracle Database Administration

Associate in Science | Code: 25058 | 60 credits

The Database Technology program is designed to provide an opportunity to establish a basic foundation in the field of database administration for employment in commercial, industrial and government institutions. Graduates are prepared for positions as database administrators and database developers.

Dental Hygiene

Associate in Science - Health Sciences | Code: 23021 | 88 credits

The Dental Hygienist is a licensed member of the dental health team dedicated to helping patients maintain good oral health and prevent dental disease and disorders. The dental hygienist performs dental cleaning, teaches patients proper oral care, takes x-rays and provides nutritional counseling for optimal oral health.

Diagnostic Medical Sonography Specialist

Associate in Science - Health Sciences | Code: 23038| 77 credits

The Diagnostic Medical Sonography Specialist program prepares the student to become a Diagnostic Medical Sonographer. The Diagnostic Medical Sonographer provides patient services, using diagnostic ultrasound under the supervision of a doctor of medicine or osteopathy who is responsible for the use and interpretation of ultrasound procedures. The sonographer assists the physician in gathering sonographic data necessary to reach diagnostic decisions.

Early Childhood Education

Associate in Science | Code: 27014 | 60 credits

The Early Childhood Education Associate in Science degree program provides the student with appropriate coursework to become a childcare practitioner. Students may complete the Florida Child Care Professional Certificate (FCCPC) and/or the National Child Development Associate credential. This degree program is accredited by the National Association for the Education of Young Children (NAEYC).

Early Childhood Education - Administrators

Associate in Science | Code: 27033 | 60 credits

The Early Childhood Education Associate in Science degree program provides the student with appropriate coursework in Administration to become a center director. Students may complete the initial or advanced level of Administrator credentialing. This degree program is accredited by the National Association for the Education of Young Children (NAEYC).

Early Childhood Education - Infant Toddler

Associate in Science | Code: 27032 | 60 credits

TThe Early Childhood Education Associate in Science degree program provides the student with appropriate coursework in Infant-Toddler studies. Students may complete the Florida Child Care Professional Certificate (FCCPC) and/or the National Child Development Associate credential. This degree program is accredited by the National Association for the Education of Young Children (NAEYC).

Early Childhood Education - Preschool

Associate in Science | Code: 27031 | 60 credits

The Early Childhood Education Associate in Science degree program provides the student with appropriate coursework in Preschool studies. Students may complete the Florida Child Care Professional Certificate (FCCPC) and/or the National Child Development Associate credential. This degree program is accredited by the National Association for the Education of Young Children (NAEYC).

Electronics Engineering Technology

Associate in Science | Code: 26039 | 68 credits

The Electronics Engineering Technology program prepares students for work as technicians in various fields of electronics technology. Courses offered cover basic and advanced electrical circuits, semiconductors, integrated circuits, pulse circuits, digital computer circuits, electrical machinery, communication systems and industrial control. Theory and laboratory experience is provided. This program transfers to four-year institutions. See department advisor for information.

Emergency Medical Services

Associate in Science - Health Sciences | Code: 23047 | 73 credits

The Emergency Medical Services program is designed according to national and state standards. Graduates will perform as advanced practitioners and as leaders in the technical supervisory and managerial aspects of advanced emergency care. Graduates will be prepared primarily for employment in agencies of advanced emergency care. Graduates will be prepared primarily for employment in agencies providing pre-hospital emergency medical care and secondarily, for jobs in emergency and other acute care areas of the hospital.

Entrepreneurship

Associate in Science | Code: 20002 | 60 credits

The Associate in Science (AS) in Entrepreneurship prepares students to start-up and operate a business or social venture with a foundation in opportunity recognition, analysis, business model development and business plan creation. Graduates will bring a critically-informed perspective to their own start-up venture, family-owned business, or social venture.

Fashion Design

Associate in Science | Code: 22005 | 60 credits

The Associate in Science degree in Fashion Design offers students a comprehensive education in innovative design, pattern cutting and garment construction technology to prepare students to work as creative professionals in the world of fashion. From concept through production, students learn the design process and acquire the knowledge and skills to integrate creativity, technology, and retail into their work. This course of study will prepare students to develop a successful career and meet a growing local demand for creative design and skilled labor in the fashion industry.

Fashion Merchandising

Associate in Science | Code: 22020 | 60 credits

The Associate in Science degree in Fashion Merchandising offers students a comprehensive education, immersing students in the business of fashion where they can explore the interconnected relationships between marketing and design. The program offers students practical instruction in design, technology, and retail and merchandising practices. This course of study will prepare students to develop a successful career and meet a growing local demand for creative design and skilled labor in the fashion industry.

Film Production Technology

Associate in Science | Code: 26044 | 64 credits

Lights... Camera... Action! South Florida has become a hotbed for independent filmmakers and music video producers. Learn what it takes to become a successful film producer, director, writer, editor, cinematographer, production manager and crewmember while earning an Associate in Science (A.S.) degree in Film Production Technology. Learn to write scripts, shoot film and digital media, and edit projects on non-linear editing systems. Students have opportunities to exhibit their work in film showcases and participate in hands-on workshops and seminars held in collaboration with the Miami International Film Festival.

Financial Services - Banking

Associate in Science | Code: 22026 | 60 credits

The Financial Services program is designed to meet the needs of students who plan to seek employment with banks, credit unions and related financial organizations. It is also planned for students who are currently employed and desire advancement to positions of greater responsibility with financial organizations. This program meets most of the requirements for the American Banking Association (ABA) diploma/certificates.

Financial Services - Wealth Management

Associate in Science | Code: 22024 | 60 credits

The Financial Services program is designed to meet the needs of students who plan to seek employment with banks, credit unions and related financial organizations. It is also planned for students who are currently employed and desire advancement to positions of greater responsibility with financial organizations. This program meets most of the requirements for the American Banking Association (ABA) diploma/certificates.

Fire Science Technology

Associate in Science | Code: 27018 | 60 credits

The Fire Science Technology program prepares students for a wide variety of technical positions in the area of fire prevention and control. Students will learn about safety factors, building code requirements, national and local standards, hazardous materials, supervision and management skills, hydraulics, fire apparatus, tactics and strategy. The program has been designed to meet both the Florida Fire Fighters Pre-Officer Requirements and the NFPA 1021 Fire Officer Level Two Requirements.

Funeral Services

Associate in Science | Code: 23049 | 72 credits

Students in the Funeral Services program are given a broad understanding of all phases of funeral home operations as well as the public health responsibilities of the funeral director and embalmer. The Funeral Services Education degree program at Miami Dade College is accredited by the American Board of Funeral Service Education (ABFSE), 992 Mantua Pike, Suite 108, Woodbury Heights, NJ 08097, 816-233-3747, abfse.org. Students of the Associate in Science degree must register to take the International Conference of Funeral Service Examining Boards, Inc. National Board Examination during their final semester. Students who plan Funeral Service licensure in other states must contact the respective state board to determine that state's specific licensing requirements and the student is responsible for complying with all particular laws and requirements of that state. National Board Examination pass rates, graduation rates, and employment rates for this and other ABFSE-accredited programs are available at www.abfse.org To request a printed copy of this

program's pass rates and rates, go to the Funeral Service Education Office (Building 3142), by e-mail at funeralservices@mdc.edu, or by telephone 305-237-1244..

Game Development & Design
Associate in Science | Code: 25075 | 60 credits

The Game Development and Design program allows students to explore the entertainment technology landscape while still pursuing a broad-based education. With an emphasis on game programming, the program exposes students to the development and design processes. Students can further specialize in game design, production, engines and systems, graphics programming and animation, mobile, and more.

Graphic Design Technology
Associate in Science | Code: 26031 | 64 credits

The Graphic Design Technology A.S. degree program prepares students for employment as graphic designers, illustrators, photo editors, page layout artists, advertising designers, package designers, branding and visual identity designers. Coursework includes the production workflow process from the design concept to the finished printed or multimedia product.

Graphic Internet Technology
Associate in Science | Code: 26050 | 60 credits

The Graphic Internet Technology program is designed to prepare creative students for a rewarding and challenging career as web designers. Students learn the design and creation of websites, incorporating graphic interfaces, aesthetic content, streaming media and dynamic databases. Upon completion, students will have the skills needed to succeed in the fast-growing field of web design.

Health Information Technology
Associate in Science - Health Sciences | Code: 23052 | 70 credits

The Health Information Management program prepares the individual for employment as a Health Information Technician in a variety of health care facilities. The technician may function in various capacities, having responsibilities such as coding of diagnoses and procedures; processing of health information; storage and retrieval of health information and statistical reporting. Other aspects of the curriculum include medical legal aspects, quality assessment and supervision of the daily operations of a Health Information Department. Management of computerized health information is emphasized. Clinical experiences are provided under the supervision of qualified professionals to enhance classroom instruction and demonstrate current advances in health information practice. A grade of "C" or better is required in all program courses.

Health Science - Health Services Management
Associate in Science | Code: 23082 | 60 credits

The Associate in Science degree in Health Sciences: Health Service Management is designed to introduce graduates to the healthcare field and an in-depth background on health care management to prepare them for a health-related career or a graduate professional health program or other graduate programs. In addition, students will acquire extensive knowledge on legal and ethical responsibilities within the health care system, current issues in the health care system, health services management concepts, Health care quality management, and managing organizations in a multi-cultural environment.

Health Sciences
Associate in Science - Health Sciences | Code: 23081 | 60 credits

The Health Sciences program provides students an introduction to the healthcare field and an in-depth science background to prepare them for a health-related career or a graduate professional health program or other graduate program.

Histologic Technology
Associate in Science - Health Sciences | Code: 23064 | 76 credits

The Histologic Technology program prepares the student for employment in a wide choice of practice settings including hospitals, clinics, clinical laboratories, veterinary pathology and forensic pathology. A Histotechnologist will be able to freeze, embed, and cut tissues, mount tissue samples on slides and stain them with dyes to make the cell details visible under the microscope. Graduates are eligible to sit for the Florida State Licensure and Registry with the American Society of Clinical Pathologists. Graduates are eligible to sit for the American Society for Clinical Pathology (ASCP) certification exam and obtain a Florida State Licensure upon passing the ASCP certification.

Hospitality & Tourism Management
Associate in Science | Code: 22016 | 60 credits

The Hospitality and Tourism Management program provides professional preparation for a career in the hospitality industry. Hospitality management is presented as a core curriculum with emphasis on hotel, cruise-line, resorts, conventions, and institutional management. An internship program is required to provide practical experience in the field of the student's choice. The Associate in Arts degree is also available to the student planning to transfer to a four-year institution after graduation from MDC. Consult an advisor about which additional courses are included in that program.

Interior Design Technology
Associate in Science | Code: 26030 | 75 credits

The Interior Design Technology program is planned to develop ability in the design of interiors, to encourage originality and to foster talent in this field. It includes theoretical and technical aspects of interior design. The program is open to those who study for pleasure and those preparing for a career.

Landscape & Horticulture Technology
Associate in Science | Code: 21005 | 60 credits

The purpose of this program is to prepare students for employment in horticulture and landscape industries. The students will learn about plant growth, nutrition and fertilization, plant classification and identification, propagation, pest control, prun-

ing, maintenance and drainage. Students will also gain business management and job skills. Students pursuing the Horticulture Specialization will obtain the skills necessary for protecting, processing, shipping and marketing of commercially viable plants. Students pursuing the Landscape Specialization will obtain the skills necessary for landscape design and installation.

Marketing
Associate in Science | Code: 25047 | 60 credits

The Associate in Science (AS) in Marketing is designed mainly for students who intend to seek immediate employment in the fields of marketing, international business and trade, or real estate; also for those desiring to work in a non-profit institution and those presently employed in marketing but seeking advancement. The Associate in Arts degree is also available to the student planning to transfer to a senior institution after graduating from Miami Dade College. Consult an advisor about additional courses for such plans.

Music Business - Business Management
Associate in Science | Code: 25019 | 64 credits

The Music Business Management program, one of three Music Business degree program options, is designed for students pursuing careers in the music or entertainment industries, with a focus on business skills and business knowledge specific to the music industry. The program combines a traditional music curriculum with industry-related courses and experiences. The Music Business curriculum includes copyright, publishing, artist development, the recording industry, sales, retailing, live concert promotion and management, preparing well-rounded graduates knowledgeable in all aspects of the music industry.

Music Business - Creative Performance
Associate in Science | Code: 25043 | 64 credits

The Music Business Creative Performance program, one of three Music Business degree program options, provides a structured program for students who have a strong interest in performing, composing or arranging music, and want to develop a diverse set of skills and knowledge related to the music business/entertainment industries. Students choosing this option study business, music business, music theory and music performance. This is the perfect program for students who want to manage their own careers as performers.

Music Business - Creative Production
Associate in Science | Code: 25044 | 64 credits

The Music Business Creative Production program, one of three Music Business degree program options, is designed for students interested in music technology. Often referred to as sound recording, this pathway provides students with hands-on experiences with the machines and software applications associated with audio production. MIDI, sound recording, music theory and other courses are completed within the context of Music Business studies. This course of study specifically includes miking techniques, recording console operations, patch bay functions, audio wiring, audio mixing concepts, and other related course work. This pathway helps students enhance their career possibilities by combining practical music business knowledge with technical experience.

Networking Services Technology - Enterprise Cloud Computing
Associate in Science | Code: 25077 | 60 credits

The Networking Services Technology - Enterprise Cloud Computing program is designed to provide an opportunity to establish foundation in architect scalable, highly available application solutions that leverage cloud computing services, utilizing best practices focusing on cloud security, cost, and reliability. Graduates will utilize core design patterns and infrastructure expertise to implement solutions to deploy and maintain workloads and applications.

Networking Services Technology - Network Infrastructure
Associate in Science | Code: 25062 | 60 credits

The Networking Services Technology - Network Infrastructure program provides an opportunity to establish a foundation in the field of network design and administration for employment in commercial, industrial and government institutions. The Network Infrastructure track offers the training needed to connect and secure multiple computing systems and software platforms. Students are additionally eligible to sit for the Cisco Certified Networking Associate (CCNA) certification exam. Graduates are prepared for positions as information technology specialists, help desk specialists, network specialists, entry level security specialists and network systems analysts.

Nuclear Medicine Technology
Associate in Science - Health Sciences | Code: 23068 | 75 credits

The Nuclear Medicine Technology program is designed to prepare selected students to qualify as nuclear medicine technologists in hospitals, outpatient diagnostic imaging centers, and private physician offices. These contributing members of the allied health team prepare and administer the tracer radio pharmaceuticals to the patients and record the image using computerized detection systems for medical diagnosis. Successful completion of this two-year program qualifies graduates to apply for the American Registry for Radiologic Technologists examination in Nuclear Medicine and/or the Nuclear Medicine Technology Certification Board Examination leading to certification as a registered nuclear medicine technologist and gainful employment as such.

Nursing - R.N. (Accelerated)
Associate in Science - Nursing | Code: 23031 | 72 credits

The Accelerated Option in Nursing is designed to prepare the stu-dent with a baccalaureate degree in another discipline for a career as a Registered Nurse (RN). The content and clinical experiences are designed to meet the learning and professional socialization needs of this special category of student. The program is accredited by the Accreditation Commission for Education in Nursing (ACEN), 3343 Peachtree Rd. N.E., Suite 850, Atlanta, GA.,

30326, 404-975- 5000, acenursing.org and approved by the Florida Board of Nursing (FBON). Graduates are eligible to apply to write the National Council Licensing Examination for Registered Nurses (NCLEX-RN). Selection is based on scores on pre-admission testing and completion of required prerequisite courses. See the School of Nursing Information website for more specific details about admission requirements. Pre-Admission tests – Applicants must take the ATI Test of Essential Academic Skills (TEAS).

Nursing - R.N. (Generic Full-Time)

Associate in Science - Nursing | Code: 23028 | 72 credits

The Generic Nursing Option is designed to prepare students without previous health care education for careers as Registered Nurses. The program is accredited by the Accreditation Commission for Education in Nursing (ACEN), 3343 Peachtree Rd. N.E., Suite 850, Atlanta, GA., 30326, 404-975-5000, acenursing.org and approved by the Florida Board of Nursing (FBON). Graduates are eligible to apply to take the National Council Licensing Examination for Registered Nurses (NCLEX-RN). See the School of Nursing Information website for specific details about admission requirements. Pre-Admission tests - Applicants must take the ATI Test of Essential Academic Skills (TEAS).

Nursing - R.N. (Generic Part-Time)

Associate in Science - Nursing | Code: 23027 | 72 credits

The Generic Nursing Option is designed to prepare students without previous health care education for careers as Registered Nurses. The program is accredited by the Accreditation Commission for Education in Nursing (ACEN), 3343 Peachtree Rd. N.E., Suite 850, Atlanta, GA., 30326, 404-975-5000, acenursing.org and approved by the Florida Board of Nursing (FBON). Graduates are eligible to apply to take the National Council Licensing Examination for Registered Nurses (NCLEX-RN). The part-time track is designed for individuals who must work while they attend school. Nursing Information Booklet for more specific details about admission requirements. See the School of Nursing Information website for specific details about admission requirements. Pre-Admission tests - Applicants must take the ATI Test of Essential Academic Skills (TEAS).

Nursing - R.N. (Transitional Full-Time)

Associate in Science - Nursing | Code: 23025 | 72 credits

The Transition Option in Nursing is designed for students pursing the career of a professional nurse who hold a license or certificate in specific healthcare fields for practice as a Registered Nurse (RN).. The content and clinical experiences are designed to meet the learning and professional socialization needs of this special category of student. The program is accredited by the Accreditation Commission for Education in Nursing (ACEN), 3343 Peachtree Rd. N.E., Suite 850, Atlanta, GA., 30326, 404-975-5000, acenursing.org and approved by the Florida Board of Nursing (FBON). Graduates are eligible to apply to write the National Council Licensing Examination for Registered Nurses (NCLEX-RN). See the School of Nursing Information website for more specific details about admission requirements. Pre-Admission tests - Applicants must take the ATI Test of Essential Academic Skills (TEAS).

Nursing - R.N. (Transitional Part-Time)

Associate in Science - Nursing | Code: 23026 | 72 credits

The Transition Option in Nursing is designed for students pursing the career of a professional nurse who hold a license or certificate in specific healthcare fields for practice as a Registered Nurse (RN). This option is designed for students who prefer a extended program of study. The content and clinical experiences are designed to meet the learning and professional socialization needs of this special category of student. The program is accredited by the Accreditation Commission for Education in Nursing (ACEN), 3343 Peachtree Rd. N.E., Suite 850, Atlanta, GA., 30326, 404-975-5000, acenursing.org and approved by the Florida Board of Nursing (FBON). Graduates are eligible to apply to write the National Council Licensing Examination for Registered Nurses (NCLEX-RN). See the School of Nursing Information website for more specific details about admission requirements. Pre-Admission tests - Applicants must take the ATI Test of Essential Academic Skills (TEAS).

Opticianry

Associate in Science - Health Sciences | Code: 23041 | 72 credits

The Opticianry program simultaneously prepares students for three ophthalmic health care careers: optician, optometric technician and ophthalmic medical assistant. A concentrated presentation of general education courses combined with career development and clinical experience accomplishes this multi-disciplinary approach. Among the marketable skills acquired are clinical data collection, ophthalmic fabrication and ophthalmic dispensing. The student begins working with patients during the third semester in clinics staffed by ophthalmologists, optometrists and opticians. A student must maintain a grade point average of 2.0 or better in each course with an "OPT" prefix in order to advance within the program. The successful completion of this program offers the graduate a challenging and rewarding career on an ophthalmic health care team. Graduates are eligible to sit for the Opticianry Licensure Examination and the Optometric Technician Registration Examination. After one year of work experience with an ophthalmologist, graduates may sit for the Ophthalmic Medical Assistant Certification Examination. The Opticianry program is approved by the Council on Optometric Education and the Commission on Opticianry Accreditation.

Paralegal Studies - ABA Approved

Associate in Science | Code: 27013 | 64 credits

The Paralegal program prepares students to obtain entry-level employment in law offices, government agencies, banks or business corporations. It also enables persons working in the field without a degree to upgrade their skills to become a qualified paralegal. The MDC Paralegal program is approved by the American Bar Association. The American Bar Association defines a paralegal or as "a person, qualified by education, training or work experience who is employed or retained by a lawyer, law office,

corporation, governmental agency or other entity and who performs specifically delegated substantive legal work for which a lawyer is responsible." Paralegals cannot give legal advice, set fees, negotiate or represent clients in court as these activities involve unauthorized practice of law. Paralegals work under the supervision of attorneys and are not just "document preparers," working directly with the public. Additional Information: It is necessary to see an advisor prior to beginning the program and before registering each term. For more information, please contact the Paralegal Program at 305-237-7813 or visit https://www.mdc.edu/paralegal/.

Photographic Technology

Associate in Science | Code: 26032 | 64 credits

The Photographic Technology program is designed to meet individual students' needs for either further study or immediate employment in the field of commercial and industrial photography. Students develop a wide variety of photographic and art-related skills and the ability to use these skills to produce commercially viable photographs. Instruction covers portrait photography, still photography, fashion photography, illustrative photography as well as the business skills needed to manage a photographic enterprise. Various internships such as in biomedical and forensic technology are available to students.

Physical Therapist Assistant

Associate in Science - Health Sciences | Code: 23034 | 74 credits

The Physical Therapist Assistant program prepares students for employment in hospitals, rehabilitation centers, nursing homes, private practices or other qualified health agencies. Graduates will work under the direction and supervision of a physical therapist in the promotion of optimal human health and function through the application of scientific principles to prevent, identify, correct or alleviate acute or prolonged physical disability of anatomic or physiologic origin. Externship or clinical practice is conducted in local health care facilities under the direction and supervision of a physical therapist. The program is accredited by the Commission on Accreditation in Physical Therapy Education. Graduates of the program are eligible to take the National Board Examination and receive an Associate in Science degree in Physical Therapist Assisting.

Professional Pilot Technology

Associate in Science | Code: 26029 | 64 credits

The possession of a private pilot's license is a requirement for admission into the Professional Pilot Technology Program. The Professional Pilot Technology program has been developed to produce graduates who will eventually be competitive applicants for beginning (First Officer) pilot positions with regional and mainline airlines. Graduates will have earned all of the necessary FAA Pilot Certificates and Ratings through Commercial Pilot. Optional additional recommended ground and flight courses include Multi-engine rating and Certified Flight Instructor – Airplane, Single engine (CFI), after the Commercial Pilot certificate has been earned. Candidates average about 250 total flight hours upon graduation. Students interested in this program must pass a medical examination with an FAA approved physician before beginning flight training. Flight training is provided by contracted FAA Approved Part 141 schools. Costs of flight training are in addition to normal tuition fees. Contact the School of Aviation.

Radiation Therapy

Associate in Science | Code: 23058 | 77 credits

The Radiation Therapy program is designed to prepare students to function as a Radiation Therapist. The radiation Therapist is a key member of the health care team that use various forms of radiation to treat cancer. Graduates will obtain extensive knowledge and cognitive skills needed to provide accurate treatment delivery and compassionate patient care. The educational process includes a close integration of classroom, laboratory, and clinical education. Upon completion of the program, graduates will be eligible for the national registry examination administered by the American Registry of Radiologic Technologists.

Radio & Television Broadcast Programming

Associate in Science | Code: 26043 | 64 credits

Cue Camera 1! Students are trained in a state of-the-art, high-definition broadcast facility to perform all functions of a television production crew, including: director, camera operator, floor manager, production assistant, technical director, graphics operator, audio engineer, and teleprompter operator. Field production and broadcasting practices enhance the student's advantage towards gaining lucrative employment in the expanding South Florida radio and television industries, as well as allied fields such as in-house educational and industrial studios.

Radiography

Associate in Science - Health Sciences | Code: 23037 | 77 credits

The Radiography program is an Associate of Applied Science degree, which provides a broad base of education and performance-based clinical experience in all technical aspects of work as a Radiographer. Experience is provided in all routine general and fluoroscopic procedures, special procedures and in the use of the specialized equipment and techniques available in the affiliated clinical education centers. The graduate is eligible to apply to take the Registry Examination of the American Registry of Radiologic Technologists. The application deadline is Feb. 15 for the class beginning the following Summer term. Additional Information: All applicants must attend an Information Session before acceptance into the Radiography program. Applicants must pass a physical, meet physical requirements, must complete an approved CPR course and an approved HIV/AIDS course before beginning the Radiography program. Due to the limited number of students that can be accepted into the Radiography program, it is important that applicants be properly informed. For information, advisement, application forms and deadline dates, interested students should contact the Department of Radiologic Sciences, Medical Center Campus.

Respiratory Care

Associate in Science - Health Sciences | Code: 23046 | 77 credits

The Respiratory Care program prepares the successful graduates for employment in health agencies where they will work with the physician and other professionals in treating patients with respiratory ailments or injuries affecting the respiratory function. Emphasis will be placed on supervised clinical instruction and practice in local health care facilities. Completion of this two-year accredited program enables the graduate to apply for entry into the Examination Process of the National Board for Respiratory Care (NBRC) A grade of "C" or better is required in each course.

Respiratory Care (Accelerated) CRT to RRT

Associate in Science - Health Sciences | Code: 23067 | 77 credits

The Respiratory Care CRT to RRT Completion program prepares the practicing Certified Respiratory Therapist (CRT) to acquire the Registered Respiratory Therapist (RRT) credential, by completing the program requirements in order to meet eligibility for the National Board for Respiratory Care (NBRC) RRT examination. The emphasis of the accelerated CRT to RRT completion program is on teaching the didactic, laboratory, and clinical competencies required of a registered respiratory therapist (RRT). CRT to RRT students will be classified as Advanced Placement in the Respiratory Care Program. A grade of "C" or better is required in each course.

Sign Language Interpretation

Associate in Science | Code: 23033 | 66 credits

The Sign Language Interpretation program (SLI) is designed to develop the skills necessary to interpret the communications between deaf or hard of hearing persons and hearing individuals in an accurate and effective manner. Students prepare to work as entry-level American Sign Language (ASL) interpreters or to transfer to a bachelor's degree program in ASL-English Interpreting.

Social and Human Services - Addictions Studies

Associate in Science | Code: 25067 | 60 credits

The Social and Human Services program with a specialization in Addiction Studies is designed to prepare students for employment as human services specialists, human services practitioners, chemical dependency practitioners, addiction specialists, mental health and social service practitioners, or to provide supplemental training for persons previously or currently employed in these occupations. The program is also designed to provide most of the general academic and addiction specific requirements of the Certification Board for Addiction Professionals of Florida.

Social and Human Services - Generalist

Associate in Science | Code: 25026 | 60 credits

The Generalist Human Services Associate in Science degree prepares the students for employment in the network of programs and agencies which provide a vast array of human needs. These include areas such as child care, criminal justice, education, health, housing, income maintenance, mental health and retardation, among others. These needs are provided for a variety of settings, such as clinics, hospitals, nursing homes, rehabilitation centers and social agencies.

Surgical Technology

Associate in Science | Code: 23077 | 64 credits

The Associate in Science degree in Surgical Technology is designed to educate and prepare graduates with skills required for entry-level employment as a member of the healthcare team. In addition, students will acquire extensive knowledge of legal and ethical responsibilities, anatomy, physiology, pathophysiology, microbiology, aseptic techniques, patient care procedures, surgical technology procedures, patient safety, and use and care of equipment and supplies.

Translation/Interpretation Studies

Associate in Science | Code: 24050 | 60 credits

This program is designed to provide bilingual students with the knowledge and skills necessary to carry out the work associated with areas of translation (written) and interpretation (oral) in the workplace. Graduates are prepared for positions as court translators/ interpreters, in-house translators/interpreters for the private sector (including translation/interpretation agencies), translators for government agencies, hospital interpreters/translators, freelance translators/interpreters and telephone interpreters. Graduates will have the basic foundation to establish their own translation/interpretation business.

Transportation & Logistics

Associate in Science | Code: 28000 | 64 credits

The Transportation and Logistics degree provides core courses in transportation policy, law, safety, security, management and marketing, and an integrated understanding of the intermodal relationship between the various modes of transportation. In addi tion, college credit certificates will be offered in Intermodal Freight Transportation and Surface Transportation.

Veterinary Technology

Associate in Science - Health Sciences | Code: 23065 | 73 credits

The Veterinary Technology program prepares students to assist veterinarians in their daily practice, working with all types of animals and in various disciplines within the realm of veterinary medicine. Tasks include providing nursing care to the sick or injured patient, handling and restraint, assisting during examinations and surgical procedures, performing dental hygiene and radiographic exams and collection and analysis of diagnostic specimens. Graduates are eligible to apply to take the Veterinary Technician National Examination (VTNE) .

Associate in Science (AS) Program Sheets

Miami Dade College

Accounting Technology
Associate in Science | Code: 25022 | 60 credits
CIP (1552030201**)**
Effective Term: Fall 2025 (2257)

The Accounting Technology program is designed mainly for students who intend to seek immediate employment in the field of accounting and for those presently employed in business but seeking advancement. Completion of this program prepares the student for employment as a paraprofessional in the accounting field. Instruction emphasizes accounting competencies required at the entry-level while also providing the student with a broad business overview and the required general education courses. The Associate in Arts degree is also available to the student planning to transfer to a senior institution after graduation from Miami Dade College. Please consult a business advisor about additional courses for such plans.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
PHI 2010	Introduction to Philosophy	3	Prerequisite: ENC 1101
MATHEMATICS (3.00 credits)			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Astronomy	3	
ESC 1000	General Education Earth Science	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C Introduction to Computer Technology & Applications			
MAJOR COURSE REQUIREMENTS (4.00 credits)			
Must take 4.0 credits from the following group.			
ACG 2011	Principles of Accounting 2	3	Corequisite: ACG 2011L
ACG 2011L	Principles of Accounting 2 Lab	1	Corequisite: ACG 2011
- - - OR - - -			
Must take 4.0 credits from the following group.			
ACG 2021	Financial Accounting	3	Corequisite: ACG 2021L
ACG 2021L	Financial Accounting Lab	1	Corequisite: ACG 2021

PROGRAM COURSE REQUIREMENTS (25.00 credits)

Must take 3.0 credits from the following group.

BUL 2131	Legal Environment 3		
BUL 2241	Business Law 1	3	

- - - AND - - -

Must take 22.0 credits from the following group.

ACG 2071	Managerial Accounting	3	Prerequisite: ACG 2011 and ACG 2001 or ACG 2021; Corequisite: ACG 2071L
ACG 2071L	Managerial Accounting Lab	1	Prerequisite: ACG 2001, ACG 2011, ACG 2021, ACG 2021L; Corequisite: ACG 2071
ACG 2450	Microcomputers in Accounting	3	Pre/Co-requisite: ACG 2001 or ACG 2021
FIN 2000	Principles of Finance	3	
GEB 1011	Principles of Business	3	
MAN 2021	Principles of Management	3	
OST 2335	Business Writing	3	
TAX 2000	Income Tax	3	

MAJOR COURSE ELECTIVE (16.00 credits)

CGS 1060C	Introduction to Computer Technology and Applications	4			
MTB 1103	Business Mathematics	3			
ACG*	ECO*	GEB*	MAR*	MNA*	QMB*
BUL*	FIN*	MAN*	MKA*	PUR*	REE*

Miami Dade College

Animation & Game Art
Associate in Science | Code: 25074 | 60 credits
CIP (1610030400**)**
Effective Term: Fall 2025 (2257)

The Animation & Game Art is an intensive hands-on program in which students learn narrative structure along with technical skills required in the animation industry. Students learn character design and animation, 3D modeling, storyboarding and environment design. Graduates are prepared for entry level jobs as 3D artist and animators.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	0Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C Introduction to Computer Technology & Applications			
MAJOR CORE REQUIREMENTS (45.00 Credits)			
DIG 1111	Digital Character Design	3	
DIG 1132	Digital art and Design	3	
DIG 1302	3D Modeling	4	
DIG 1430	Storyboarding	3	

DIG 2304	Character Animation	3	Prerequisite: DIG 2790
DIG 2318	Animation Studio 1	3	Prerequisites: DIG 1302, DIG 1430 and DIG 1437
---OR---			
CAP 2048	Game Development Project I	3	Prerequisites: CAP 2047 or DIG 1302, COP 1334 or DIG 1111, COP 2335 or DIG 1437, DIG 1430, DIG 1710 or DIG 1132; Pre/Corequisite: DIG 1712 or DIG 2113
DIG 2319	Animation Studio 2	3	Prerequisite: CAP 2048 or DIG 2318
---OR---			
CAP 2920C	Game Development Project II	3	Prerequisite: CAP 2048, DIG 1712 or DIG 2113
DIG 2370	Character Modeling & Rigging	4	Prerequisite: DIG 1302
DIG 2391C	Animation Studio 3	4	Prerequisite: CAP 2920C or DIG 2319
DIG 2396C	Motion Capture	4	Prerequisite: DIG 1302
DIG 2790	Texturing & Environment Design	4	Prerequisite: DIG 1302

Miami Dade College

Applied Artificial Intelligence
Associate in Science | Code: 25080 | 60 credits
CIP (1511010200**)**
Effective Term: Fall 2025 (2257)

The Associate in Science in Applied Artificial Intelligence introduces learners to the importance of managing the lifecycle of an artificial intelligence (AI) project and ethical considerations relevant to its design and implementation. It offers hands-on learning on the applications of AI and use cases. Students also learn concepts and popular tools such as machine learning, data collection, classification, natural language processing, the functions of AI virtual assistants, and techniques used in AI for computer vision as domains to build AI solutions. The program is geared for those who want to enter or upskill into the field as AI Developers or AI Specialists.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C	Introduction to Computer Technology & Applications		
MAJOR COURSE REQUIREMENTS (37.00 Credits)			
CAI 1001C	Artificial Intelligence (AI) Thinking	3	
CAI 2100C	Machine Learning Foundations	3	Prerequisites: CAI 1001C and COP 1047C

CAI 2300C	Introduction to Natural Language	3	Prerequisite: CAI 2100C Processing
CAI 2820C	Artificial Intelligence Application Solutions	3	Prerequisites: CAI 2300C and CAI 2840C
CAI 2840C	Introduction to Computer Vision	3	Prerequisite: CAI 2100C
CGS 1060C	Introduction to Computer Technology and Applications	4	
CGS 1540C	Database Concepts and Design	4	
COP 1047C	Introduction to Python Programming	4	
CTS 1145	Cloud Essentials	4	
PHI 2680	Artificial Intelligence and Ethics	3	
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.

PROGRAM ELECTIVES (8.00 Credits)

Electives are restricted to courses listed below:
MAC*, MAD*, MAP*

CAP 1788	Introduction to Data Analytics	4	
COP 2800	Java Programming	4	Prerequisites: COP 1047C, COP 1334 or COP 2270
CTS 1120	Cybersecurity Fundamentals	4	
ETS 1603C	Introduction to Robotics	4	
GEB 1432	Applied Artificial Intelligence (AI) in Business	3	
HSC 2060	Artificial Intelligence applications in Healthcare	3	

Miami Dade College

Architectural Design and Construction Technology
Associate in Science | Code: 26034 | 66 credits
CIP (1604090100**)**
Effective Term: Fall 2025 (2257)

The Architectural Design and Construction Technology program offers courses that enable the student to translate the design and systems of the architect into graphic and written form and assists the professional in rendering architectural services. The attainment of these skills qualifies the student for several specialties, such as, architectural drafting, cost estimating, material selecting, specification writing and preparing presentations, drawings & models.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
Humanities (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
Mathematics (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
Natural Science (3.00 credits)			
AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
PHY 2053	Physics (without Calculus) 1	3	Prerequisite: MAC 1114 or MAC 1147; Corequisite: PHY 2053L
Social Science (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US Since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C Introduction to Computer Technology & Applications			
MAJOR COURSE REQUIREMENTS (43.00 Credits)			
ARC 1115	Architectural Communications 1	2	

ARC 1126C	Architectural Drawing 1	4	
ARC 1128	Architectural Drawing 2	4	Prerequisite: ARC 1126C
ARC 1301	Architectural Design 1	4	Pre/Corequisite: ARC 1115
ARC 2053	Architectural Computer Applications	4	
ARC 2056	Computer Aided Architectural Presentation	4	
ARC 2171	Computer Aided Drafting 1	4	Prerequisite: ARC 1126C or ARC 2461
ARC 2172	Computer Aided Drafting 2	4	Prerequisite: ARC 2171
ARC 2461	Architectural Materials and Construction 1	4	Prerequisite: ARC 1126C or BCN 1251
ARC 2681	Environmental Technology	3	Prerequisite: ARC 1126C
ARC 2701	History of Architecture 1	3	
BCT 2760	Building Code Regulations	3	

PROGRAM COURSE ELECTIVE (8.00 Credits)

ARC*			
BCN*			
BCT*			
CGS 1060C	Introduction to Computer Technology and Applications	4	

Miami Dade College

Aviation Administration
Associate in Science | Code: 26028 | 60 credits
CIP (1649010403**)**
Effective Term: Fall 2025 (2257)

The Aviation Administration program is designed to prepare students to succeed in the dynamic aviation industry. The program focuses on the necessary entry-level skills for most aviation employment fields. The Air Traffic Control option provides students with the opportunity to be hired with the Federal Aviation Administration (FAA). Accordingly, graduates find opportunities in airline sales and reservations, air cargo, airport operations and many data-entry positions required by the airline management. Additional Information: Contact the Aviation Department at (305) 237-5950 for information and advisement.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
HUM 1020	Humanities	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Astronomy	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
--- OR ---			
CGS 1060C	Introduction to Computer Technology & Applications		
MAJOR COURSE REQUIREMENTS (34.00 Credits)			
ASC 1210	Aviation Meteorology	3	Prerequisite: ATT 1100 or equivalent; Corequisite: ATT 2110 or equivalent
ASC 2320	Aviation Laws and Regulations	3	
ATF 1601L	Flight Orientation/Simulator Lab	1	
ATT 2820	Air Traffic Control	3	Prerequisite: sophomore standing in major program.
AVM 1010	Aviation Industry Operations	3	
AVM 1022	Flight Operations	3	
AVM 1440	Aviation/Airport Security	3	
AVM 2410	Principles of Airport Management	3	
AVM 2431	Customer Service Agent	3	
AVM 2441	Aviation Safety & Human Factors	3	
AVM 2510	Airline Management	3	

AVM 2515	Airline Marketing	3	
ELECTIVES (11.00 Credits)			
ASC*, ATF*, ATT*, AVM*		3	
NOTE: Check with advisor for requisite information			
CGS 1060C	Introduction to Computer Technology and Applications	4	
MAT 1033	Intermediate Algebra	3	Prerequisites: MAT 0022C, or MAT 0028, or MAT 0057 or by placement score, or eligible exemption.
TRA 2010	Introduction to Transportation and Logistics	3	

Miami Dade College

Aviation Maintenance Management
Associate in Science | Code: 26027 | 83 credits
CIP (1649010401**)**
Effective Term: Fall 2025 (2257)

The Aviation Maintenance Management is a special program in which 45 semester hours are awarded to students who possess the Federal Aviation Administration Aircraft and Powerplant (A & P) certificate. The 38 additional required credits consist of general education and aviation requirements needed by the licensee for the Associate in Science degree. Additional Information: Contact the Aviation Department at (305) 237-5950 for information and advisement.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
PHI 2010	Introduction to Philosophy	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
--- OR ---			
CGS 1060C	Introduction to Computer Technology & Applications		
MAJOR COURSE REQUIREMENTS (66.00 Credits)			
ASC 2320	Aviation Laws and Regulations	3	
AVM 1160	Aviation Maintenance Programs and Inspections	3	
AVM 1162	Maintenance Repair and Overhaul (MRO) I nteractions withCommercial Airline Operations	3	
AVM 1163	Policies and Procedures for Airlines Maintenance Programs	3	
AVM 2510	Airline Management	3	
AVM 2515	Airline Marketing 3		
MAN 2021	Principals of Management	3	
AVM 9996	FAA Certification	45	
ELECTIVES (2.00 Credits)			
ASC*	LIS*	SLS*	
AVM*	MAN*		
IDS*	MAT*		

Miami Dade College

Biomedical Engineering Technology
Associate in Science | Code: 26053 | 60 credits
CIP (1615040102**)**
Effective Term: Fall 2025 (2257)

The Biomedical Engineering Technology program prepares students for employment as Biomedical Engineering Technicians and Technologists and in related occupations in health-related fields. The program also provides supplemental training for persons currently or previously employed in these occupations. The program focuses on the understanding and applying of concepts in electronics, in addition to troubleshooting techniques, to digital, microprocessor, or computer-based systems as they relate to medical devices. Assembly, installation, operations maintenance, calibration, trouble-shooting, repairing and elementary design on medical systems are taught using an integrated, applied and theoretical approach.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033•
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
BSC 1005	General Education Biology	3	
BSC 2085	Human Anatomy and Physiology 1	3	Corequisite: BSC 2085L
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877 3		
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C Introduction to Computer Technology & Applications			
MAJOR COURSE REQUIREMENTS (37.00 Credits)			
CET 1110C	Digital Circuits	4	Prerequisite: EET 1015C, MAC 1105; Pre/Corequisite: COP 2270
CET 1487C	Network+	3	
COP 2270	"C" for Engineers	4	Pre/Corequisite: MAC 1105 Pre/Corequisite: MAC 1114 or 1147

EET 1141C	Electronics 1	4	Prerequisite: EET 1025C, and MAC 1114 or MAC 1147
EET 2101C	Electronics 2	4	Prerequisite: EET 1141C
ETS 2673C	Programmable Logic Controllers	4	Prerequisite: CET 1110C
HIM 2472	Medical Terminology	3	
MAC 1114	Trigonometry	3	Prerequisite: MAC 1105 or MAC 1106

PROGRAM ELECTIVE (8.00 Credits)

Electives are restricted to courses listed below:

BSC*, CET*, EET*, ETI*, ETS*, MAC*

ETM 1315C	Applied Pneumatics and Hydraulics	3	Pre/Corequisite: MAC 1105

Miami Dade College

Biotechnology
Associate in Science | Code: 22027 | 61 credits
CIP (1341010100**)**
Effective Term: Fall 2025 (2257)

The Biotechnology Program will expose students to a breadth of topics and emphasizes hands-on learning in a variety of techniques and procedures necessary for employment in the bioscience industry. The Program includes modules designed to enhance critical thinking and technical communication skills. It focuses on developing broad transferable skills and stresses understanding and demonstration of laboratory/industry protocols and regulations, bio-safety and safe operating procedures, ethical and environmental issues, product generation/ formulation, quality control, validation, instrumentation, and computing.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and Writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
HUM 1020	Humanities	3	
PHI 2010	Introduction to Philosophy	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
BSC 2010	Principles of Biology	3	Pre/Corequisite: CHM 1045; Corequisite: BSC 2010L
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C Introduction to Computer Technology & Applications			
MAJOR COURSE REQUIREMENTS (23.00 Credits)			
BSC 2010L	Principles of Biology 1 Laboratory	2	Corequisite: BSC 2010
BSC 2426	Biotechnology Methods and Applications 1	3	Corequisite: BSC 2426L
BSC 2426L	Biotechnology Methods & Applications 1 Laboratory	2	Corequisite: BSC 2426
BSC 2427	Biotechnology Methods and Applications 2	3	Prerequisites: BSC 2426, BSC 2426L; Corequisite: BSC 2427L
BSC 2427L	Biotechnology Methods & Applications 2 Laboratory	2	Prerequisites: BSC 2426, BSC 2426L; Corequisite: BSC 2427
BSC 2943L	Bioscience Internship	3	
CHM 1045	General Chemistry and Qualitative Analysis	3	Prerequisite: CHM 1025 or a passing score on the CART exam, MAC 1105; Corequisite: CHM 1045L

CHM 1045L	General Chemistry and Qualitative Analysis Lab	2	Prerequisite: MAC 1105, CHM 1025 or a passing score on the CART exam; Corequisite: CHM 1045
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.

MAJOR COURSE ELECTIVE (23.00 credits)

CHM 1025	Introductory Chemistry	3	Prerequisite: MAT 1033

NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.

CHM 1046	General Chemistry and Qualitative Analysis	3	Prerequisite: CHM 1045; Corequisite: CHM 1046L
CHM 1046L	General Chemistry & Qualitative Analysis Laboratory	2	Prerequisite: CHM 1045L; Corequisite: CHM 1046
CHM 2200	Survey of Organic Chemistry	3	Prerequisite: CHM 1046; Corequisite: CHM 2200L
CHM 2200L	Survey of Organic Chemistry Laboratory	1	Prerequisite: CHM 1046L; Corequisite: CHM 2200
CHM 2210	Organic Chemistry 1	3	Prerequisite: CHM 1046; Corequisite: CHM 2210L
CHM 2210L	Organic Chemistry 1 Laboratory	2	Prerequisite: CHM 1046L; Corequisite: CHM 2210
CHM 2211	Organic Chemistry 2	3	Prerequisite: CHM 2210; Corequisite: CHM 2211L
CHM 2211L	Organic Chemistry 2 Laboratory	2	Prerequisite: CHM 2210L; Corequisite: CHM 2211
ETI 1040	Introduction to Bioscience Manufacturing	3	
ETI 1172	Introduction to Quality Assurance	3	
MAT 1033	Intermediate Algebra	3	Prerequisites: MAT 0022C, or MAT 0028, Or MAT 0057 or by placement score, or eligible exemption.
MCB 2010	Microbiology	3	Prerequisites: BSC 2010, BSC 2010L or BSC 2085, BSC 2085L, CHM 1033, CHM 1033L, or CHM 1045, CHM 1045L
MCB 2010L	Microbiology Laboratory	2	Prerequisites: BSC 2010, BSC 2010L or BSC 2085, BSC 2085L, CHM 1033, CHM 1033L, or CHM 1045, CHM 1045L Corequisite: MCB 2010

Miami Dade College

Biotechnology – Bioinformatics
Associate in Science | Code: 22028 | 61 credits
CIP (1341010100**)**
Effective Term: Fall 2025 (2257)

The Biotechnology Program will expose students to a breadth of topics and emphasizes hands-on learning in a variety of techniques and procedures necessary for employment in the bioscience industry. The Program includes modules designed to enhance critical thinking and technical communication skills. It focuses on developing broad transferable skills and stresses understanding and demonstration of laboratory/industry protocols and regulations, bio-safety and safe operating procedures, ethical and environmental issues, product generation/ formulation, quality control, validation, instrumentation, and computing.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
HUM 1020	Humanities	3	
PHI 2010	Introduction to Philosophy	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
BSC 2010	Principles of Biology	3	Pre/Corequisite: CHM 1045; Corequisite: BSC 2010L
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C	Introduction to Computer Technology & Applications		
MAJOR COURSE REQUIREMENTS (23.00 Credits)			
BSC 2010L	Principles of Biology 1 Laboratory	2	Corequisite: BSC 2010
BSC 2426	Biotechnology Methods and Applications 1	3	Corequisite: BSC 2426L
BSC 2426L	Biotechnology Methods & Applications 1 Laboratory	2	Corequisite: BSC 2426
BSC 2427	Biotechnology Methods and Applications 2	3	Prerequisites: BSC 2426, BSC 2426L; Corequisite: BSC 2427L
BSC 2427L	Biotechnology Methods & Applications 2 Laboratory	2	Prerequisites: BSC 2426, BSC 2426L;Corequisite: BSC 2427
BSC 2943L	Bioscience Internship	3-6	
CHM 1045	General Chemistry and Qualitative Analysis	3	Prerequisite: CHM 1025 or a passing score on the CART exam, MAC 1105; Corequisite: CHM 1045L

CHM 1045L	General Chemistry and Qualitative Analysis Lab	2	Prerequisites: MAC 1105, CHM 1025 or apassing score on the CART exam; Corequisite: CHM 1045
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

MAJOR COURSE ELECTIVE (23.00 Credits)

CGS 1060C	Introduction to Computer Technology & Applications	4	
CGS 1700	Introduction to Operating Systems	4	
CIS 1321	Introduction to Systems Analysis and Design	4	Prerequisite: CGS 1060C
COP 1334	Introduction to C++ Programming	4	
COP 1047C	Python Programming	4	
MAT 1033	Intermediate Algebra	3	Prerequisite: MAT 0022C or MAT 0028 or MAT 0057 or by placement score, or eligible exemption.

Miami Dade College

Biotechnology – Chemical Technology
Associate in Science | Code: 22029 | 61 credits
CIP (1341010100**)**
Effective Term: Fall 2025 (2257)

The Biotechnology Program will expose students to a breadth of topics and emphasizes hands-on learning in a variety of techniques and procedures necessary for employment in the bioscience industry. The Program includes modules designed to enhance critical thinking and technical communication skills. It focuses on developing broad transferable skills and stresses understanding and demonstration of laboratory/industry protocols and regulations, bio-safety and safe operating procedures, ethical and environmental issues, product generation/ formulation, quality control, validation, instrumentation, and computing.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
HUM 1020	Humanities	3	
PHI 2010	Introduction to Philosophy	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
BSC 2010	Principles of Biology	3	Pre/Corequisite: CHM 1045; Corequisite: BSC 2010L
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C Introduction to Computer Technology & Applications			
MAJOR COURSE REQUIREMENTS (23.00 Credits)			
BSC 2010L	Principles of Biology 1 Laboratory	2	Corequisite: BSC 2010
BSC 2426	Biotechnology Methods and Applications 1 Laboratory	3	Corequisite: BSC 2426L
BSC 2426L	Biotechnology Methods & Applications 1	2	Corequisite: BSC 2426
BSC 2427	Biotechnology Methods and Applications 2	3	Prerequisites: BSC 2426, BSC 2426L; Corequisite: BSC 2427L
BSC 2427L	Biotechnology Methods & Applications 2 Laboratory	2	Prerequisites: BSC 2426, BSC 2426L; Corequisite: BSC 2427
BSC 2943L	Bioscience Internship	3	
CHM 1045	General Chemistry and Qualitative Analysis	3	Prerequisite: CHM 1025 or a passing scoreon the CART exam, MAC 1105; Corequisite: CHM 1045L

CHM 1045L	General Chemistry and Qualitative Analysis Lab	2	Prerequisites: MAC1105, CHM 1025 or a passing score on the CART exam; Corequisite: CHM 1045
STA 2023	Statistical Methods	3	Prerequisites: MAT 1033 or MGF 1131

MAJOR COURSE ELECTIVE (23.00 Credits)

CHM 1046	General Chemistry and Qualitative Analysis	3	Prerequisite: CHM 1045; Corequisite: CHM 1046L
CHM 1046L	General Chemistry & Qualitative Analysis Laboratory	2	Prerequisite: CHM 1045L; Corequisite: CHM 1046
CHM 2200	Survey of Organic Chemistry	3	Prerequisite: CHM 1046; Corequisite: CHM 2200L
CHM 2200L	Survey of Organic Chemistry Laboratory	1	Prerequisite: CHM 1046L; Corequisite: CHM 2200
CAP 1760	Introduction to Analytics	4	
CGS 1060C	Introduction to Computer Technology & Applications	4	
ETI 1172	Introduction to Quality Assurance	3	
MAT 1033	Intermediate Algebra	3	Prerequisites: MAT 0022C, or MAT 0028, or MAT 0057 or by placement score, or eligible exemption.

Miami Dade College

Building Construction Technology
Associate in Science | Code: 26033 | 60 credits
CIP (1615100102**)**
Effective Term: Fall 2025 (2257)

The Building Construction Technology program is designed to furnish technically trained personnel for the building construction industry. The graduate may work with a contractor as part of the administrative team in such entry-level job positions as those leading to estimators, job coordinators, or project managers. Technical jobs may also be available in the following areas: land and project developers; technical sales for building materials, systems, and equipment; with local, state, and federal government agencies; as well as various financial institutions.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
PHY 2053	Physics (without Calculus) 1	3	Prerequisite: MAC 1114 or MAC 1147; Corequisite: PHY 2053L
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	

COMPUTER COMPETENCY
Test type(s) needed:
Computer Competency Test (CCT)
---OR---
CGS 1060C Introduction to Computer Technology & Applications

MAJOR COURSE REQUIREMENTS (42.00 Credits)

ARC 1126C	Architectural Drawing 1	4	
ARC 2171	Computer Aided Drafting 1	4	Prerequisite: ARC 1126C or 2461
ARC 2461	Architectural Materials and Construction 1	4	Prerequisite: ARC 1126C or BCN 1251
ARC 2681	Environmental Technology	3	Prerequisite: ARC 1126C
BCN 1272	Building Construction Plans Interpretation 1	3	
BCN 1275	Building Construction Plans Interpretation 2	3	Prerequisite: BCN 1272
BCT 1743	Building Construction Law	3	
BCT 1750	Building Construction Financing	3	
BCT 1770	Building Construction Estimating Fundamentals	3	Prerequisite: BCN 1272
BCT 1771	Building Construction Advanced Estimating	3	Prerequisites: BCN 1275, BCT 1770
BCT 2760	Building Code Regulations	3	
MAC 1114	Trigonometry	3	Prerequisite: MAC 1105 or MAC 1106
SUR 1001C	Construction Survey	3	Prerequisite: MAC 1114 or MAC 1147

MAJOR COURSE ELECTIVE (3.00 Credits)

ARC*, BCN*, BCT*			
CGS 1060C	Introduction to Computer Technology and Applications	4	
ETM 1700	Air Conditioning Fundamentals	3	

Miami Dade College

Business Administration
Associate in Science | Code: 25051 | 60 credits
CIP (1552020102**)**
Effective Term: Fall 2025 (2257)

This program transfers to four-year institutions. See department for information. The Business Administration program trains individuals to assume management or supervisory positions in business, industry, and government. It provides basic skills in a broad range of business functions including accounting, computer usage, management and marketing. Successful completion of this program earns the student entry into any university in the State University System as part of the A.S. to B.S. program.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Astronomy	3	
BSC 1005	General Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C Introduction to Computer Technology & Applications			
MAJOR COURSE REQUIREMENTS (14.00 Credits)			
ACG 2011	Principles of Accounting 2	3	Corequisite: ACG 2011L
ACG 2011L	Principles of Accounting 2 Lab	1	Corequisite: ACG 2011
- - - OR - - -			

ACG 2021	Financial Accounting	3	Corequisite: ACG 2021L
ACG 2021L	Financial Accounting Lab	1	Corequisite: ACG 2021
---AND---			
ACG 2071	Managerial Accounting	3	Prerequisite: ACG 2011 and ACG 2001 or ACG 2021; Corequisite: ACG 2071L
ACG 2071L	Managerial Accounting Lab	1	Prerequisite: ACG 2001, ACG 2011, ACG 2021, ACG 2021L; Corequisite: ACG 2071
ECO 2023	Principles of Economics (Micro)	3	Prerequisite: MAT 1033

STUDENTS MUST SEEK ADVISEMENT FOR PROPER MATHEMATICS COURSE FROM DISCIPLINE CHAIRPERSON.

GEB 1011	Principles of Business	3

PROGRAM CORE REQUIREMENTS (12.00 – 18.00 Credits)
(Students must select one track)

Track 1 – Business Management (15.00 credits)

MAN 2021	Principles of Management	3
MAN 2604	Managing in a Multi-Cultural Environment	3
MAR 1011	Principles of Marketing	3
MNA 1345	Effective Supervision	3
SBM 1000	Small Business Management	3

---OR---

Track 2 – Marketing (18.00 credits)

MAR 1011	Principles of Marketing	3
MAR 1720	Marketing in a Digital World	3
MAR 2101	Social Media Marketing	3
MAR 2150	International Marketing	3
MAR 2520	Hispanic Marketing	3
MKA 1511	Principles of Advertising and Copywriting	3

---OR---

Track 3 – Human Resources (15.00 credits)

MAN 2021	Principles of Management	3
MAN 2300	Human Resource Management	3
MAR 2101	Social Media Marketing	3
MNA 1345	Effective Supervision	3
MNA 2120	Human Relations in Business 3	

---OR---

Track 4 – International Business (12.00 credits)

FIN 2051	International Financial Management	3
GEB 2350	Introduction to International Business	3
MAN 2604	Managing in a Multi-Cultural Environment	3
MAR 2150	International Marketing	3

---OR---

Track 5 – Small Business (12.00 credits)

GEB 2112	Introduction to Entrepreneurship	3
MAN 2021	Principles of Management	3
MAR 1011	Principles of Marketing	3
SBM 1000	Small Business Management	3

ELECTIVES (13.00 – 19.00 Credits)

ACG*	ECO*	HFT*	MKA*	PUR*	TAX*
BAN*	FIN*	MAN*	MNA*	QMB*	TRA
BUL*	GEB*	MAR*	OST*	SBM*	

CGS 1060C	Introduction to Computer Technology & Applications	4	
ENC 1102	English Composition 2	3	Prerequisite: ENC 1101
LIS 2004	Strategies for Online Research	1	
MAC 2233	Business Calculus	3	Prerequisite: MAC 1105 or MAC 1106
MTB 1103	Business Mathematics	3	
SPC 1017	Introduction to Communication	3	

Miami Dade College

Business Intelligence Specialist
Associate in Science | Code: 25073 | 60 credits
CIP (1552130101**)**
Effective Term: Fall 2025 (2257)

The Associate in Science in Business Intelligence Specialist prepares students for employment as business intelligence analysts and related occupations and/or for upper division studies in data analytics. Business intelligence is a broad category of application programs and technologies for gathering, storing, analyzing, and providing access to data to help enterprise users make improved business decisions. Students will learn how to build business intelligence applications and how to manipulate massive amounts of data, turning it into useful information and reports.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C Introduction to Computer Technology & Applications			
MAJOR COURSE REQUIREMENTS (34.00 Credits)			
CAP 1788	Introduction to Data Analytics	4	

CAP 2761C	Intermediate Analytics	4	Prerequisites: CAP 1788 and CGS 1540C
CAP 2791C	Power BI: Data Preparation and Modeling	4	Prerequisites: CAP 1788 and CGS 1540C
CAP 2743C	Power BI: Data Visualization and Analysis	4	Prerequisite: CAP 2791C
CGS 1060C	Introduction to Computer Technology & Applications	4	
CGS 1540C	Database Concepts and Design	4	
COP 1047C	Introduction to Python Programming	4	
GEB 1011	Principles of Business	3	
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033• or MGF 1131

NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.

PROGRAM ELECTIVES (11.00 Credits)

Electives are restricted to courses listed below:
ACG*, CAI*, CAP*, CGS*, CIS*, CNT*, COP*, CTS*, FIN*, GEB*, MAC*, MAD*, MAN*, QMB*, STA

Miami Dade College

Civil Engineering Technology
Associate in Science | Code: 26035 | 63 credits
CIP (1715020101**)**
Effective Term: Fall 2025 (2257)

The Civil Engineering Technology program is designed for those students who wish immediate job placement prior to or after graduation. This program also satisfies many of the civil engineering freshman and sophomore requirements for the Bachelor of Engineering Technology degree offered by certain universities. Consult your Civil Engineering advisor prior to registration.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	Prerequisite: ENC 1101
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science 3		
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C Introduction to Computer Technology & Applications			
MAJOR COURSE REQUIREMENTS (41.00 Credits)			
ETC 1250	Construction Materials	3	
ETC 2210C	Geotechnics and Soils	4	
ARC 1126C	Architectural Drawing 1	4	
ETI 2121	Materials Testing	3	Prerequisite: MAC 1105

ETG 2530C	Strength of Materials	3	Prerequisite: ETG 2502 or Equivalent
MAC 1114	Trigonometry	3	Prerequisite: MAC 1105 or MAC 1106
SUR 1101C	Surveying 1	4	Prerequisites MAC1114 or MAC1147
EGS 1111C	Engineering Graphics	5	
SUR 2301C	Topography & Mapping	4	Departmental Permission
SUR 2400C	Land Surveying 1	3	Prerequisite: SUR 1101C
SUR 2404C	Land Surveying 2	3	
SUR 2462C	Subdivisions	3	Prerequisite: EGS 1111C

MAJOR COURSE ELECTIVE (7.00 Credits)

EGN 2200	Computer Applications in Engineering	3	Pre/Co-requisite MAC1114 or MAC1147
EGS 1220C	Basic Computer Language	2	
ETC 1930	Construction and Engineering Seminar 1	1-3	
ETC 2201	Design and Inspection Engineer Seminar 1	3	
ETC 2207	Computing and Estimating	3	
ETM 1313C	Hydraulics and Pneumatics	3	Prerequisite: MAC 1105
SUR 1001C	Construction Survey	3	Prerequisite: MAC1114 or MAC 1147
SUR 1640C	Land Surveying Computations	3	Prerequisite: MAC 1105 or 1140; Corequisite: MAC 1114
SUR 2330C	Photogrammetry 1	3	

Miami Dade College

Clinical Laboratory Science
Associate in Science | Code: 23024 | 76 credits
CIP (1351100405**)**
Effective Term: Fall 2025 (2257)

The Clinical Laboratory Sciences program prepares the graduate to work as part of the health care delivery team in a non-profit clinical laboratory or research laboratory. Clinical practice is conducted in local health care facilities under the supervision of qualified registered professional personnel. Graduates are eligible for Florida State Licensure and Registry with the American Society of Clinical Pathologists and equivalent licensure.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
Communications (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
Humanities (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
Mathematics (3.00 credits)			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
Natural Science (3.00 credits)			
BSC 2085	Human Anatomy and Physiology 1	3	Corequisite: BSC 2085L
Social Science (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C	Introduction to Computer Technology & Applications		
SCIENCE REQUIREMENTS (14.00 Credits)			
BSC 2085L	Human Anatomy and Physiology 1 Laboratory	1	Corequisite: BSC 2085
BSC 2086	Human Anatomy & Physiology 2	3	Prerequisite: BSC 2085; Corequisite: BSC 2086L
BSC 2086L	Human Anatomy & Physiology 2 Laboratory	1	Prerequisites: BSC 2085, BSC 2085L; Corequisite: BSC 2086
CHM 1033	Chemistry for Health Sciences	3	Prerequisite: MAT 1033; Corequisite: CHM 1033L
CHM 1033L	Chemistry for Health Sciences Lab	1	Prerequisite: MAT 1033; Corequisite: CHM 1033

MCB 2010	Microbiology	3	Prerequisites: BSC 2010, BSC 2010L; or BSC 2085, BSC 2085L; CHM 1045, CHM 1045L, CHM 1033, CHM 1033L; Corequisite: MCB 2010L
MCB 2010L	Microbiology Laboratory	2	Prerequisites: BSC 2010, BSC 2010L; or BSC 2085, BSC 2085L; CHM 1045, CHM 1045L, CHM 1033, CHM 1033L; Corequisite: MCB 2010

FIRST TERM IN PROGRAM (9.00 credits)

MLT 1040L	Fundamentals of Laboratory Operations	1	
MLT 1210C	Clinical Urinalysis with Lab	2	
MLT 1300	Clinical Hematology	2	Corequisite: MLT 1300L
MLT 1300L	Clinical Hematology Laboratory	2	Corequisite: MLT 1300
MLT 1752	Quality Control Laboratory Mathematics	2	

SECOND TERM IN PROGRAM (9.00 credits)

MLT 1500	Clinical Immunology/Serology	2	Prerequisites: BSC 2085, BSC 2086 Corequisite: MLT 1500L
MLT 1500L	Clinical Immunology/Serology Laboratory	1	Prerequisites: BSC 2085L, BSC 2086L Corequisite: MLT 1500
MLT 1610	Clinical Chemistry 1	2	Prerequisite: CHM 1025 Corequisite: MLT 1610L
MLT 1610L	Clinical Chemistry 1 Laboratory	2	Prerequisite: CHM 1025L Corequisite: MLT 1610
MLT 2440	Clinical Microbiology 1	1	Corequisite: MLT 2440L
MLT 2440L	Clinical Microbiology Lab 1	1	Corequisite: MLT 2440

THIRD TERM IN PROGRAM (6.00 credits)

MLT 1330	Clinical Coagulation	1	Prerequisite: MLT 1300 Corequisite: MLT 1330L
MLT 1330L	Clinical Coagulation Laboratory	1	Prerequisite: MLT 1300L Corequisite: MLT 1330
MLT 2525	Immunohematology	2	Prerequisite: MLT 1500 Corequisite: MLT 2025L
MLT 2525L	Immunohematology Laboratory	2	Prerequisite: MLT 1500L Corequisite: MLT 2525

FOURTH TERM IN PROGRAM (9.00 credits)

MLT 2403	Clinical Microbiology 2	2	Prerequisite: MLT 2440 Corequisite: MLT 2403L
MLT 2403L	Clinical Microbiology Lab 2	2	Prerequisite: MLT 2440L Corequisite: MLT 2403
MLT 2620	Clinical Chemistry 2	2	Prerequisite: MLT 1610 Corequisite: MLT 2620L
MLT 2620L	Clinical Chemistry 2 Laboratory	1	Prerequisite: MLT 1610L Corequisite: MLT 2620
MLT 2624L	Special Techniques in Clinical Chemistry	2	Prerequisites: MLT 1610, MLT 1610L Corequisites: MLT 2620, MLT 2620L

FIFTH TERM IN PROGRAM (14.00 credits)

MLT 2807L	Hospital Practicum: Immunohematology	3	Prerequisites: MLT 2525, MLT 2525L Corequisite: MLT 2930
MLT 2809L	Hospital Practicum: Hematology	3	Prerequisites: MLT 1300, MLT 1300L, MLT 1330, MLT 1330L Corequisite: MLT 2930
MLT 2810L	Hospital Practicum: Chemistry	3	Prerequisites: MLT 2620, MLT 2620L, MLT 2624L Corequisite: MLT 2930
MLT 2811L	Hospital Practicum: Microbiology	3	Prerequisites: MLT 2403, MLT 2403L Corequisite: MLT 2930
MLT 2930	Medical Laboratory Technology Seminar	2	Corequisites: MLT 2807L, MLT 2809L, MLT 2810L, MLT 2811L

Miami Dade College

Computer Crime Investigation
Associate in Science | Code: 27028 | 60 credits
CIP (1743040300**)**
Effective Term: Fall 2025 (2257)

The Associate in Science (AS) in Computer Crime Investigation will prepare graduates with the education and skills needed to fulfill roles and positions in the Information Security industry. The coursework will include education and applied technical skills in the criminal justice and information security fields.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Skills Placement (CSP)			
---OR---			
CGS 1060C	Introduction to Computer Technology & Application		
MAJOR COURSE REQUIREMENTS (30.00 Credits)			
CCJ 1010	Introduction to Criminology	3	
CET 2880C	Digital Forensics	4	
CGS 1700	Introduction to Operating Systems	4	
CJL 2062	Constitutional Law & Legal Procedure	3	
CTS 1120	Fundamentals of Networking Security	4	
CTS 1134	Networking Technologies	4	
DSC 1590	Introduction to Intelligence Studies	3	
DSC 2501	Writing & Reporting for the IC	3	Prerequisite: ENC1101
--AND--			
CIS 1949	Co-Op Work Experience	2	

--OR--

CIS 2900	Directed Information Technology Study	2	Department Approval Required

MAJOR COURSE ELECTIVES (15.00 Credits)

CGS 1060C	Introduction to Computer Technology and Application	4	
CGS 1540C	Database design	4	
CJE 1680	Introduction to Computer Crimes	3	
COP 1334	Introduction to C++	4	
COP 2270	"C" for Engineers	4	
DSC 1006	Introduction to Homeland Security	3	
DSC 2590	Intelligence Analysis & Security Management	3	
MAT 1033	Intermediate Algebra	3	Prerequisites: MAT 0022C, or MA T0028, or MAT 0057 or by placement score, or eligible exemption.

Miami Dade College

Computer Engineering Technology
Associate in Science | Code: 26052 | 68 credits
CIP (1615120100**)**
Effective Term: Fall 2025 (2257)

The Computer Engineering Technology program prepares students for employment as computer engineering technicians or technologists and in related occupations in electronics. It also provides supplemental training for persons currently or previously employed in these occupations. The program focuses on the understanding and applying of hardware and software concepts, in addition to troubleshooting techniques to digital, microprocessor or computer-based systems. Assembly, installation, operation, maintenance, calibration, troubleshooting, repairing and elementary designs of medical systems are taught using an integrated and theoretical approach.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities 3		
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
PHY 2053	Physics (without Calculus) 1	3	Prerequisite: MAC 1114 or MAC 1147; Corequisite: PHY 2053L
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	

COMPUTER COMPETENCY
Test type(s) needed:
Computer Competency Test (CCT)
---OR---
CGS 1060C Introduction to Computer Technology & Applications

MAJOR COURSE REQUIREMENTS (46.00 Credits)

CET 1110C	Digital Circuits	4	Prerequisites: EET 1015C, MAC 1105; Pre/Corequisite: COP 2270
CET 1171	Introduction to Computer Service and Maintenance	3	
CET 1178C	A+ Computer Hardware Service	3	Prerequisite: CET 1171
CET 1487C	Network+	3	
CET 2113C	Advanced Digital Circuits	4	Prerequisites: CET 1110C, COP 2270, Pre/Corequisite: EET 1141C
CET 2123C	Microprocessors	4	Prerequisites: CET 1110C and COP 2270
CET 2588C	Server + Service and Maintenance	3	
COP 2270	"C" for Engineers	4	Pre/Corequisite: MAC 1105
EET 1015C	Direct Current Circuits	4	Prerequisite: MAC 1105
EET 1025C	Alternating Current Circuits	4	Prerequisite: EET 1015C; Pre/Corequisite: MAC 1114 or 1147
EET 1082	Introduction to Electronics	3	
EET 2351C	Digital and Data Communications	4	Prerequisite: CET 2123C.
MAC 1114	Trigonometry	3	Prerequisite: MAC 1105 or MAC 1106

MAJOR COURSE ELECTIVE (7.00 Credits)

EET 1141C	Electronics 1	4	Prerequisite: EET1025C, and MAC 1114 or MAC 1147
EET 2101C	Electronics 2	4	Prerequisite: EET 1141C
EET 2323C	Analog Communications	4	Prerequisite: EET 1141C
MAC*			
PHY*			

Miami Dade College

Computer Information Technology
Associate in Science | Code: 25055 | 60 credits
CIP (1511010307**)**
Effective Term: Fall 2025 (2257)

The Computer Information Technology program is to provide an opportunity to establish a basic foundation in computer applications. Graduates are prepared for positions as microcomputer support specialists, user support specialists, applications system specialists and computer information managers to meet the demands of today's automated offices. In addition, program objectives are designed to assist students in their development of interpersonal and communication skills required by office professionals.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	Prerequisite: ENC 1101
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C Introduction to Computer Technology & Applications			
MAJOR COURSE REQUIREMENTS (45.00 credits) PROGRAM CORE (32.00 credits)			
Group A: Must take **4 credit hours** from the following options.			
CTS 1134	Networking Technologies	4	
CTS 1650	CCNA 1: Cisco Fundamentals	4	

---AND---

Group B: Must take **28 credit hours** from the following options.

CGS 1060C	Introduction to Computer Technology and Applications	4	
CGS 1560	A+ Computer Operating Systems	4	Prerequisite: CGS 1060C or Previous Computer Experience
CGS 2108	Advanced Desktop Applications	4	Prerequisite: CGS 1060C
CTS 1131	A+ Computer Essentials & Support	4	
CTS 1328	Supporting Microsoft Clients	4	CGS 1060C recommended or equivalent experience or skills
CTS 2148C	IT Project Management	4	
CTS 2153	Supporting Windows Users & Applications	4	Prerequisite: CTS 1328

PROGRAM ELECTIVES (13.00 credits)

CAP*, CEN*, CGS*, CIS*, COP*, CTS*, GIS*

Miami Dade College

Computer Programming and Analysis – Business Application Programming
Associate in Science | Code: 25065 | 60 credits
CIP (1511020101**)**
Effective Term: Fall 2025 (2257)

The Computer Programming and Analysis program with a Business Application Programming concentration provides an opportunity to establish a foundation in computer programming in scientific, commercial, industrial and government data processing applications. Graduates are prepared for positions as entry-level application programmers, programmer specialists, computer programmers and programmer analysts.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US Since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C Introduction to Computer Technology & Applications			
MAJOR COURSE REQUIREMENTS (21.00 Credits)			
CGS 1060C	Intro to Computer Technology and Applications	4	
CGS 1540C	Database Concepts and Design	4	
CIS 2331	Systems Analysis, Design and Implementation	5	
COP 1334	Introduction to C++ Programming	4	

COP 2800	Java Programming	4	Prerequisite: COP 1334

PROGRAM CONCENTRATION CORE (8.00 Credits)

ACG 2021	Financial Accounting	3	Corequisite: ACG 2021L
ACG 2021L	Financial Accounting Lab	1	Corequisite: ACG 2021
COP 1047C	Introduction to Python Programming	4	

PROGRAM ELECTIVES (16.00 Credits)

Must take **4 credits** from the following group:

COP 2335	Object Oriented Programming Using C++	4	
COP 2805C	Advanced Java Programming	4	Prerequisite: COP 2800

---AND---

Must take **12 credits** from the following group:

COP2*	4		
CAP 1603C	Artificial Intelligence (AI) Thinking	4	
CEN 2211	C/C++ Programming for Embedded Devices	4	Prerequisite: COP 1334; Corequisite: EET 1033
CEN 2212C	Introduction to Programing the IoT	4	Prerequisite: CEN 2211 and EET 1033C
CGS 2091	Professional Ethics and Social Issues in CS	4	
COP 1332	Introduction to Visual Basic Programming	4	Pre/Corequisite: CGS 1060C
CTS 1800	Introduction to Web Development	4	
CTS 2148C	IT Project Management	4	
CTS 2440	Introduction to Oracle: SQL and PL/SQL	4	
CTS 2466C	Internet of Things (IoT) Development with C#	4	Prerequisite: CEN 2211
EET 1033C	Electrical Fundamentals	4	
GEB 1432	Applied Artificial Intelligence (AI) in Business	3	
PHI 2680	Artificial Intelligence (AI) Ethics	3	

Miami Dade College

Computer Programming and Analysis – Internet of Things (IoT) Applications
Associate in Science | Code: 25076 | 60 credits
CIP (1511020101**)**
Effective Term: Fall 2025 (2257)

Students in the AS in Computer Programming and Analysis with an IoT Applications concentration are trained to help individuals and organizations by increasing convenience and productivity through the connection of "smart" devices. This is done with the development of applications that can run on microcontroller boards, designing and simulating the function of the devices, and building physical prototypes. Students learn how to develop applications in the dominant programming languages used in IoT, configure different single board computers, and complete projects that can be included in a portfolio. Graduates are prepared for positions as entry-level application programmers, rapid prototyping assistants, programmer specialists, embedded software developers, IoT consultants, and connected devise support specialists.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US Since 1877	3	
POS 2041	American Federal Government	3	

COMPUTER COMPETENCY
Test type(s) needed:
Computer Competency Test (CCT)
---OR---
CGS 1060C Introduction to Computer Technology & Applications

MAJOR COURSE REQUIREMENTS (21.00 credits)

CGS 1060C	Intro to Computer Technology and Applications	4	
CGS 1540C	Database Concepts and Design	4	
CIS 2331	Systems Analysis, Design and Implementation	5	
COP 1334	Introduction to C++ Programming	4	
COP 2800	Java Programming	4	Prerequisite: COP 1334

PROGRAM CONCENTRATION CORE (16.00 credits)

CEN 2211	C/C++ Programming for Embedded Devices	4	Prerequisite: COP 1334; Corequisite: EET 1033
CEN 2212C	Introduction to Programing the IoT	4	Prerequisites: CEN 2211 and EET 1033C
CTS 2466C	Internet of Things (IoT) Development with C#	4	Prerequisite: CEN 2211
EET 1033C	Electrical Fundamentals	4	

PROGRAM ELECTIVES (8.00 credits)

COP2*		4	
CGS 2091	Professional Ethics and Social Issues in CS	4	
COP 1047C	Introduction to Python Programming	4	
COP 1332	Introduction to Visual Basic Programming	4	Pre/Corequisite: CGS 1060C
CTS 1120	Cybersecurity Fundamentals	4	
CTS 1134	Networking Technologies	4	
CTS 1800	Introduction to Web Development	4	
CTS 2148C	IT Project Management	4	
CTS 2440	Introduction to Oracle: SQL and PL/SQL	4	

Miami Dade College

Computer Programming and Analysis – Mobile Applications Development
Associate in Science | Code: 25070 | 60 credits
CIP (1511020101**)**
Effective Term: Fall 2025 (2257)

The Computer Programming and Analysis program provides an opportunity to establish a foundation in computer programming in scientific, commercial, industrial and government data processing applications. The Mobile Applications Development concentration additionally offers hands-on instruction with current technology for Apple and Android mobile device platforms. Graduates are prepared for positions as app developers.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US Since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C	Introduction to Computer Technology & Applications		
MAJOR COURSE REQUIREMENTS (21.00 credits)			
CGS 1060C	Introduction to Computer Technology & Applications	4	
CGS 1540C	Database Concepts and Design	4	
CIS 2331	Systems Analysis, Design and Implementation	5	

COP 1334	Introduction to C++ Programming	4	
COP 2800	Java Programming	4	Prerequisite: COP 1334

PROGRAM CONCENTRATION CORE (16.00 credits)

COP 2654	iPhone Application Development 1	4	Prerequisite: COP 1332 or COP 1334
COP 2658	iPhone Application Development 2	4	Prerequisite: COP 2654
COP 2660	Android Application Development 1	4	Prerequisite: COP 2800
COP 2662	Android Application Development 2	4	Prerequisites: COP 2660 and COP 2800

PROGRAM ELECTIVES (8.00 credits)

COP2*	4		
CEN 2211	C/C++ Programming for Embedded Devices	4	Prerequisite: COP 1334; Corequisite: EET 1033
CEN 2212C	Introduction to Programing the IoT	4	Prerequisites: CEN 2211 and EET 1033C
CGS 2091	Professional Ethics and Social Issues in CS	4	
COP 1047C	Introduction to Python Programming	4	
COP 1332	Introduction to Visual Basic Programming	4	Pre/Corequisite: CGS 1060C
CTS 1800	Introduction to Web Development	4	
CTS 2148C	IT Project Management	4	
CTS 2440	Introduction to Oracle: SQL and PL/SQL	4	
CTS 2466C	Internet of Things (IoT) Development with C#	4	Prerequisite: CEN 2211
EET 1033C	Electrical Fundamentals	4	

Miami Dade College

Crime Scene Technology – Crime Scene Investigation
Associate in Science | Code: 27026 | 60 credits
CIP (1743040600**)**
Effective Term: Fall 2025 (2257)

The Associate in Science Degree in Crime Scene Technology prepares students for employment in the field of criminalistics with a specialty in Crime Scene Investigation or Forensic Science. Graduates of this program may find employment as a Forensic Science Technician, Crime Scene Technician, Medical Examiner Investigator, Medical Investigator, Insurance Investigator, Legal Investigator, Forensic Paralegal, Crime Scene Investigator, and Laboratory Technician, among others. Students may also continue their formal education with the College and receive a Bachelor of Applied Science in Public Safety Management.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
PHI 2010	Introduction to Philosophy	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
---OR---			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
---OR---			
MGF 1131	Mathematics in Context	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
---OR---			
STA 2023	Statistical Methods	3	Prerequisites: MAT 1033 or MGF 1131
NATURAL SCIENCE (3.00 credits)			
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Skills Placement (CSP)			

---OR---
CGS 1060C Introduction to Computer Technology & Application

MAJOR COURSE REQUIREMENTS (19.00 Credits)

CCJ 1020	Introduction to Criminal Justice	3	
CHS 1522C	Forensic Science 1	4	
CJE 1640	Crime Scene Technology 1	3	
CJE 1673	Crime Scene Photography 1	3	
CJE 2600	Criminal Investigation	3	
CJE 2671	Basic Fingerprinting	3	

MAJOR COURSE ELECTIVE (26.00 Credits)

CCJ 1191	Human Behavior in Criminal Justice	3	
CCJ 2053	Criminal Justice Ethics and Professionalism	3	Prerequisite: PHI 2604
CCJ 2358	Criminal Justice Reporting	3	Prerequisite: ENC 1101
CGS 1060C	Introduction to Computer Technology and Application	4	
CJE 1642	Crime Scene Technology 2	3	Prerequisite: CJE 1640
CJE 1772	Crime Scene Photography 2	3	Prerequisite: CJE 1673
CJE 2644	Crime Scene Safety	3	
CJE 2672	Fingerprint Development	3	Prerequisite: CJE 2671
CJL 2610	Courtroom Presentation	3	
MAC*	3		
MAT*	3		
PHI 2604	Critical Thinking and Ethics	3	Prerequisite: ENC 1101
SPC 1017	Introduction to Communication	3	

NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.

Miami Dade College

Criminal Justice Technology
Associate in Science | Code: 27012 | 60 credits
CIP (1743010302**)**
Effective Term: Fall 2025 (2257)

Upon completion of the Criminal Justice Technology program, the student will be eligible for the Associate in Science degree. The A.S. degree opens up entry-level non-sworn positions in local, state and federal agencies, i.e., juvenile justice, private security, law enforcement, corrections, probation and parole, detention centers and community-based intervention programs.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
PHI 2010	Introduction to Philosophy	3	
MATHEMATICS (3.00 credits)			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
NATURAL SCIENCE (3.00 credits)			
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Skills Placement (CSP)			
---OR---			
CGS 1060C	Introduction to Computer Technology & Application		
MAJOR COURSE REQUIREMENTS (12.00 Credits)			
CCJ 1010	Introduction to Criminology	3	
CCJ 1020	Introduction to Criminal Justice	3	
CJC 1000	Introduction to Corrections	3	
CJL 2062	Constitutional Law and Legal Procedure or Evidence	3	
MAJOR COURSE ELECTIVE (33.00 Credits)			
CCJ 1191	Human Behavior in Criminal Justice	3	
CCJ 2053	Criminal Justice Ethics and Professionalism	3	Prerequisite: PHI 2604
CCJ 2650	Narcotics and Dangerous Substances	3	
CGS 1060C	Introduction to Computer Technology	4	

	& Application		
CJC 1162	Parole and Probation	3	
CJE 2600	Criminal Investigation	3	
CJJ 2002	Juvenile Delinquency	3	
CJL 1100	Criminal Law	3	
DSC 1006	Introduction to Homeland Security	3	
DSC 2242	Transportation and Border Security	3	
DSC 2590	Intelligence Analysis and Security Management	3	
PHI 2604	Critical Thinking and Ethics	3	Prerequisite: ENC 1101
SPC 1017	Fundamentals of Speech Communication	3	
SYG 2000	Introduction to Sociology	3	

Miami Dade College

Culinary Arts Management
Associate in Science | Code: 22031 | 60 credits
CIP (1612050401**)**
Effective Term: Fall 2025 (2257)

The Associate in Science degree will groom individuals for careers in the widely varied areas of the culinary industry, including production line and supervisory positions. This competency based culinary program will provide the student with a unique combination of comprehensive theoretical knowledge and hands on training. Students will master the fundamentals of culinary production in an environment that builds teamwork while gaining practical individualized experiences. The course content includes food preparation and service; identification, storage, selection and presentation of foods; training in communication, leadership, human relations, and employability skills; and sanitation and safe work practices. Earning a degree will enable students to pursue further education at the university level or begin working in the field immediately upon graduation.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
PHI 2010	Introduction to Philosophy	3	
MATHEMATICS (3.00 credits)			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
NATURAL SCIENCE (3.00 credits)			
BSC 1005 General Education Biology		3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C Introduction to Computer Technology & Applications			
MAJOR COURSE REQUIREMENTS (45.00 Credits)			
ACG 1403	Excel for Business	1	
FSS 1200	Culinary Terminology and Procedures	3	Corequisite: FSS 1202C
FSS 1202C	Food Production 1 – Fundamental Skills	3	Corequisite: FSS 1200
FSS 1204C	Food Production 2 – American Regional Cuisine	3	Prerequisites: FSS 1200, FSS 1202C
FSS 1246C	Basic Baking – Foundational Skills	3	Prerequisites: FSS 1200, FSS 1202C
FSS 1801	Culinary Sustainability and Practices	3	Prerequisite: FSS 2248C

FSS 2205C	Food Production 3 – Contemporary Cuisine and Modernist Methods	3	Prerequisites: FSS 1200, FSS 1202C, FSS 1204C, FSS 1246C, FSS 2242C, FSS 2248C
FSS 2242C	International Cuisines	3	Prerequisites: FSS 1200, FSS 1202C, FSS 1204C, FSS 1246C, FSS 2248C
FSS 2248C	Garde Manger	3	Prerequisites: FSS 1200, FSS 1202C, FSS 1246C
FSS 2381	Culinary Management Internship	4	Prerequisite: FSS 2205L
FSS 2940	Culinary Management Externship	4	
HFT 1212	Safety & Sanitation	3	
HFT 1220	Supervision and Personnel Management	3	
HFT 1454	Food and Beverage Cost Controls	3	
HUN 1201	Essentials of Human Nutrition	3	

Miami Dade College

Cybersecurity
Associate in Science | Code: 25079 | 60 credits
CIP (1511100308**)**
Effective Term: Fall 2025 (2257)

The Cybersecurity program prepares students to fill a critical and growing need for cybersecurity personnel through hands-on experience along with simulation training and group/team-based learning to simulate a professional work environment. The program covers a wide range of topics including cybersecurity fundamentals, computer forensics and network security. Upon completion of the program, the student will have learned to evaluate security trends, recognize best practices, and understand IT security products and threats. Additionally, the curriculum is designed to aid students in preparing for many of the certification exams in the field.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C Introduction to Computer Technology & Application			
MAJOR COURSE REQUIREMENTS (20.00 credits)			
CGS 1060C	Introduction to Computer Technology & Applications	4	

CGS 1700	Introduction to Operating Systems	4	
CIS 1531	Introduction to Secure Scripting	4	
CTS 1120	Cybersecurity Fundamentals	4	
CTS 1134	Networking Technologies	4	

PROGRAM COURSE REQUIREMENTS (16.00 credits)

CET 2880C	Digital Forensics	4	
CIS 2350	Cybersecurity Analysis	4	Prerequisites: CTS 1120, CTS 1134
CTS 1111	Linux +	4	Prerequisite: CGS 1060C or Computer Experience
CTS 2314	Network Defense and Countermeasures	4	Prerequisites: CTS 1120 and CTS 1134 or CTS 1650

PROGRAM COURSE ELECTIVE (9.00 credits)

CGS*, CIS*, COP*, CTS*		4	
***ANY COURSE WITH THE LISTED PREFIXES SATISFIES THIS REQUIREMENT.**			
CIS 2900	Directed Information Technology Study	1-4	
CJE 1680	Introduction to Computer Crimes	3	
CJL 2062	Constitutional Law & Legal Procedure	3	
COP 1334	Introduction to C++ Programming	4	
COP 2800	Java Programming	4	Prerequisite: COP 1334
COP 2805C	Java Programming 2	4	Prerequisite: COP 2800
CTS 2303	Windows Server Administration	4	
CTS 2306	Windows Networking Services	4	
CTS 2334	Windows Identity Services	4	
CTS 2664	Cisco CCNA Security	4	Prerequisite: CTS 1651
CTS 2670	Check Point Security Administration	4	Prerequisites: CTS 1120, CTS 1134

Miami Dade College

Database Technology - Oracle Database Administration
Associate in Science | Code: 25058 | 60 credits
CIP (1511080200**)**
Effective Term: Fall 2025 (2257)

The Database Technology program is designed to provide an opportunity to establish a basic foundation in the field of database administration for employment in commercial, industrial and government institutions. Graduates are prepared for positions as database administrators and database developers.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition	3	Prerequisite: Student must meet theDevelopmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	Prerequisite: ENC 1101
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 Credits)			
AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C Introduction to Computer Technology & Applications			
MAJOR COURSE REQUIREMENTS (32.00 credits)			
CGS 1060C	Introduction to Computer Technology & Applications	4	
CGS 1540C	Database Concepts and Design	4	
COP 1334	Introduction to C++ Programming	4	
COP 2800	Java Programming	4	Prerequisite: COP 1334

CTS 2440	Introduction to Oracle: SQL and PL/SQL	4	Prerequisite: CGS 1060C
CTS 2441	Introduction to Oracle Database Administration	4	Prerequisite: CTS 2440
CTS 2442	Intermediate Oracle Database Administration	4	Prerequisite: CTS 2441
CTS 2444	Oracle Database Performance Tuning	4	Prerequisite: CTS 2442

MAJOR COURSE ELECTIVE (13.00 credits)
Electives are restricted to courses listed below:
CAP*, CEN*, CGS*, CIS*, COP*, CTS*

Miami Dade College

Dental Hygiene
Associate in Science | Code: 23021 | 88 credits
CIP (1351060200**)**
Effective Term: Fall 2025 (2257)

The Associate in Science degree in Dental Hygiene is designed to educate and prepare graduates with skills required for entry- level employment as a member of the healthcare team1 The Dental Hygienist is a licensed member of the dental health team dedicated to helping patients maintain good oral health and prevent dental disease and disorders. The dental hygienist performs dental cleaning, teaches patients proper oral care, takes x-rays and provides nutritional counseling for optimal oral health.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet theDevelopmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
NATURAL SCIENCE (3.00 credits)			
BSC 2085	Human Anatomy and Physiology 1	3	Corequisite: BSC 2085L
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C Introduction to Computer Technology & Applications			
SCIENCE REQUIREMENTS (13.00 Credits)			
BSC 2085L	Human Anatomy and Physiology 1 Laboratory	1	Corequisite: BSC 2085
BSC 2086	Human Anatomy & Physiology 2	3	Prerequisite: BSC 2085; Corequisite: BSC 2086L
BSC 2086L	Human Anatomy & Physiology 2 Laboratory	1	Prerequisite: BSC 2085, BSC 2085L; Corequisite: BSC 2086
CHM 1033	Chemistry for Health Sciences	3	Prerequisite: MAT 1033

NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.

MCB 2010	Microbiology	3	Prerequisites: BSC 2010, BSC 2010L; or BSC 2085, BSC 2085L; CHM 1045, CHM 1045L, CHM 1033, CHM 1033L; Corequisite: MCB 2010L
MCB 2010L	Microbiology Laboratory	2	Prerequisites: BSC 2010, BSC 2010L; or BSC 2085, BSC 2085L; CHM 1045, CHM 1045L, CHM 1033, CHM 1033L; Corequisite: MCB 2010

ELECTIVE REQUIREMENTS (3.00 Credits)

PSY 2012	Introduction to Psychology	3	

MAJOR CORE REQUIREMENTS (57.00 Credits) FIRST SEMESTER (13.00 Credits)

DEH 1002	Pre-Clinical Dental Hygiene	2	Corequisites: DEH 1002L, DEH 1133, DEH 1710, DEH 1720, DES 1200, DES 1200L
DEH 1002L	Pre-Clinical Dental Hygiene Lab	2	Corequisites: DEH 1002, DEH 1133, DEH 1710, DEH 1720, DES 1200, DES 1200L
DEH 1133	Dental Anatomy, Histology & Physiology	2	Corequisites: DEH 1002, DEH 1002L, DEH 1710, DEH 1720, DES 1200, DES 1200L
DEH 1710	Oral Health Literacy	1	Corequisites: DEH 1002, DEH 1002L, DEH 1133, DEH 1720, DES 1200, DES 1200L
DEH 1720	Preventive Dentistry	2	Corequisites: DEH 1002, DEH 1002L, DEH 1133, DEH 1710, DES 1200, DES 1200L
DES 1200	Dental Radiology	2	Corequisites: DEH 1002, DEH 1002L, DEH 1133, DEH 1710, DEH 1720, DES 1200L
DES 1200L	Dental Radiology Laboratory	2	Corequisites: DEH 1002, DEH 1002L, DEH 1133, DEH 1710, DEH 1720, DES 1200

SECOND SEMESTER (14.00 Credits)

DEH 1400	General/Oral Pathology	3	Prerequisites: DEH 1002, DEH 1002L, DEH 1133,DEH 1710, DEH 1720, DES 1200, DES 1200L; Corequisites: DEH 1800, DEH 1800L, DEH 1811, DEH 2202, DES 1600
DEH 1800	Dental Hygiene I	2	Prerequisites: DEH 1002, DEH 1002L, DEH 1133, DEH 1710, DEH 1720, DES 1200, DES 1200L; Corequisites: DEH 1400, DEH 1800L, DEH 1811, DEH 2202, DES 1600
DEH 1800L	Dental Hygiene I Clinic	3	Prerequisites: DEH 1002, DEH 1002L, DEH 1133, DEH 1710, DEH 1720, DES 1200, DES 1200L; Corequisites: DEH 1400, DEH 1800, DEH 1811, DEH 2202, DES 1600
DEH 1811	Professional Issues	2	Prerequisites: DEH 1002, DEH 1002L, DEH 1133, DEH 1710, DEH 1720, DES 1200, DES 1200L; Corequisites: DEH 1400, DEH 1800, DEH 1800L, DEH 2202, DES 1600
DEH 2202	Nutrition	2	Prerequisites: DEH 1002, DEH 1002L, DEH 1133, DEH 1710, DEH 1720, DES 1200, DES 1200L; Corequisites: DEH 1400, DEH 1800, DEH 1800L, DEH 1811, DES 1600
DES 1600	Dental Office Emergencies	2	Prerequisites: DEH 1002, DEH 1002L, DEH 1133, DEH 1710, DEH

			1720, DES 1200, DES 1200L; Corequisites: DEH 1400, DEH 1800, DEH 1800L, DEH 1811, DEH 2202
THIRD SEMESTER (6.00 Credits)			
DEH 1802L	Dental Hygiene II Clinic (Summer A)	1	Prerequisites: DEH 1400, DEH 1800, DEH 1800L, DEH 1811, DEH 2202, DES 1600; Corequisites: DEH 1804L, DEH 1840L, DEH 2300, DEH 2300L, DEH 2602
DEH 1804L	Dental Hygiene III Clinic (Summer B)	1	Prerequisites: DEH 1400, DEH 1800, DEH 1800L, DEH 1811, DEH 2202, DES 1600; Corequisites: DEH 1802L, DEH 1840L, DEH 2300, DEH 2300L, DEH 2602
DEH 1840L	Adv. Radiographic & Clinical Assessment	1	Prerequisites: DEH 1400, DEH 1800, DEH 1800L, DEH 1811, DEH 2202, DES 1600; Corequisites: DEH 1802L, DEH 1804L, DEH 2300, DEH 2300L, DEH 2602
DEH 2300	Pharmacology and Pain Management	1	Prerequisites: DEH 1400, DEH 1800, DEH 1800L, DEH 1811, DEH 2202, DES 1600; Corequisites: DEH 1802L, DEH 1804L, DEH 1840L, DEH 2300L, DEH 2602
DEH 2300L	Pharmacology and Pain Management	1	Prerequisites: DEH 1400, DEH 1800, DEH 1800L, DEH 1811, DEH 2202, DES 1600; Corequisites: DEH 1802L, DEH 1804L, DEH 1840L, DEH 2300, DEH 2602
DEH 2602	Periodontology I (Summer A)	1	Prerequisites: DEH 1400, DEH 1800, DEH 1800L, DEH 1811, DEH 2202, DES 1600; sCorequisites: DEH 1802L, DEH 1804L, DEH 1840L, DEH 2300, DEH 2300L
FOURTH SEMESTER (12.00 Credits)			
DEH 2603	Periodontology II	2	Prerequisites: DEH 1802L, DEH 1804L, DEH 1840L, DEH 2300, DEH 2300L, DEH 2602; Corequisites: DEH 2603L, DEH 2701, DEH 2806, DEH 2806L
DEH 2603L	Periodontology Lab	1	Prerequisites: DEH 1802L, DEH 1804L, DEH 1840L, DEH 2300, DEH 2300L, DEH 2602; Corequisites: DEH 2603, DEH 2701, DEH 2806, DEH 2806L
DEH 2701	Community Dental Health	3	Prerequisites: DEH 1802L, DEH 1804L, DEH 1840L, DEH 2300, DEH 2300L, DEH 2602; Corequisites: DEH 2603, DEH 2603L, DEH 2806, DEH 2806L
DEH 2806	Dental Hygiene IV	2	Prerequisites: DEH 1802L, DEH 1804L, DEH 1840L, DEH 2300, DEH 2300L, DEH 2602; Corequisites: DEH 2603, DEH 2603L, DEH 2701, DEH 2806L
DEH 2806L	Dental Hygiene IV Clinic	4	Prerequisites: DEH 1802L, DEH 1804L, DEH 1840L, DEH 2300, DEH 2300L, DEH 2602; Corequisites: DEH 2603, DEH 2603L, DEH 2701, DEH 2806

FIFTH SEMESTER (12.00 Credits)

DEH 2702L	Community Dental Health II Lab	2	Prerequisites: DEH 2603, DEH 2603L, DEH 2701, DEH 2806, DEH 2806L; Corequisites: DEH 2808, DEH 2808L, DEH 2810L, DES 2100, DES 2100L
DEH 2808	Dental Hygiene V	2	Prerequisites: DEH 2603, DEH 2603L, DEH 2701, DEH 2806, DEH 2806L; Corequisites: DEH 2702L, DEH 2808L, DEH 2810L, DES 2100, DES 2100L
DEH 2808L	Dental Hygiene V Clinic	4	Prerequisites: DEH 2603, DEH 2603L, DEH 2701, DEH 2806, DEH 2806L; Corequisites: DEH 2702L, DEH 2808, DEH 2810L, DES 2100, DES 2100L
DEH 2810L	Inter-Professional Practice and Education Lab	1	Prerequisites: DEH 2603, DEH 2603L, DEH 2701, DEH 2806, DEH 2806L; Corequisites: DEH 2702L, DEH 2808, DEH 2808L, DES 2100, DES 2100L
DES 2100	Dental Materials and Specialties	2	Prerequisites: DEH 2603, DEH 2603L, DEH 2701, DEH 2806, DEH 2806L; Corequisites: DEH 2702L, DEH 2808, DEH 2808L, DEH 2810L, DES 2100L
DES 2100L	Dental Materials and Specialties Laboratory	1	Prerequisites: DEH 2603, DEH 2603L, DEH 2701, DEH 2806, DEH 2806L; Corequisites: DEH 2702L, DEH 2808, DEH 2808L, DEH 2810L, DES 2100

Miami Dade College

Diagnostic Medical Sonography Specialist
Associate in Science | Code: 23038 | 77 credits
CIP (1351091004**)**
Effective Term: Fall 2025 (2257)

The Diagnostic Medical Sonography Specialist program prepares the student to become a Diagnostic Medical Sonographer. The Diagnostic Medical Sonographer provides patient services, using diagnostic ultrasound under the supervision of a doctor of medicine or osteopathy who is responsible for the use and interpretation of ultrasound procedures. The sonographer assists the physician in gathering sonographic data necessary to reach diagnostic decisions.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
BSC 2085	Human Anatomy and Physiology 1	3	Corequisite: BSC 2085L
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C	Introduction to Computer Technology & Applications		
SCIENCE REQUIREMENTS (8.00 Credits)			
BSC 2085L	Human Anatomy and Physiology 1 Laboratory	1	Corequisite: BSC 2085
BSC 2086	Human Anatomy & Physiology 2	3	Prerequisite: BSC 2085; Corequisite: BSC2 086L
BSC 2086L	Human Anatomy & Physiology 2 Laboratory	1	Prerequisite: BSC 2085, BSC 2085L; Corequisite: BSC 2086
PHY 1020	General Education Physics	3	
---OR---			
PHY 1025	Basic Physics	3	Prerequisite: MAC 1105

ELECTIVE REQUIREMENTS (3.00 Credits)
Electives any appropriate transferrable (Credit Type 1 or 2) courses (Check with Advisor).

MAJOR CORE REQUIREMENTS (51.00 Credits)

SON 1000L	Introduction to Sonography 1	1	Corequisites: SON 1111C, SON 1121C
SON 1001L	Introduction to Sonography 2	1	Prerequisite: SON 1000L
SON 1005L	Basic Sonography	2	Prerequisite: SON 1000L
SON 1006L	Professional Aspects of Sonograph	1	
SON 1100L	Principles of Protocols of Imaging	2	
SON 1111C	Abdominal Sonography 1	2	Prerequisite: SON 1000L
SON 1112C	Abdominal Sonography 2	2	Prerequisite: SON 1111C
SON 1113L	Sonography Cross Sectional Anatomy	2	
SON 1115L	Duplex Abdominal Sonography	1	Prerequisite: SON 1112C
SON 1121C	Obstetrics/Gynecology Sonography 1	2	Corequisite: SON 1000L
SON 1122C	Obstetrics/Gynecology Sonography 2	2	Prerequisite: SON 1121C
SON 1141C	Small Parts Sonography	2	Prerequisite: SON 1112
SON 1145L	Pediatric Sonography	1	Prerequisite: SON 1141C
SON 1804	Clinic 1	2	Corequisite: SON 1000L
SON 1814	Clinic 2	2	Prerequisite: SON 1804
SON 1824	Clinic 3	3	Prerequisite: SON 1814
SON 2139L	Cardiovascular Principles	1	Prerequisite: SON 2400C; Corequisite: SON 2401C
SON 2151C	Neurosonography	2	Prerequisites: SON 1113L, SON 1141C
SON 2400C	Echocardiography 1	2	Prerequisite: SON 1000L
SON 2401C	Echocardiography 2	2	Prerequisite: SON 2400C
SON 2614C	Acoustical Physics and Instrumentation 1	2	Prerequisite: SON 1005L
SON 2618C	Acoustical Physics and Instrumentation 2	2	Prerequisites: SON 2614C, CGS 1060C
SON 2619C	Doppler Principles and Instrumentation	2	Prerequisite: SON 2618C
SON 2834	Clinic 4	2	Prerequisite: SON 1824
SON 2844	Clinic 5	3	Prerequisite: SON 2834
SON 2854	Clinic 6	3	Prerequisite: SON 2844
SON 2930L	Seminar in Sonography	1	
SON 2935L	Diagnostic Ultrasound Imaging: Advanced Techniques and Case Analysis	1	Prerequisite: SON 2934L

Miami Dade College

Early Childhood Education
Associate in Science | Code: 27014 | 60 credits
CIP (1413121004**)**
Effective Term: Fall 2025 (2257)

The Early Childhood Education Associate in Science degree program provides the student with appropriate coursework in one of three tracks: Preschool, Infant-Toddler, or Administrator. Students may complete the Florida Child Care Professional Certificate (FCCPC), Advanced Director's Credential, and/or College Credit Certificates as part of their Associate in Science degree.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Anatomy	3	
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Sciences	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the United States since 1877	3	
POS 2041	American Federal Government	3	

COMPUTER COMPETENCY
Test type(s) needed:
Computer Skills Placement (CSP)
---OR---
CGS 1060C Introduction to Computer Technology & Applications

MAJOR CORE REQUIREMENTS (12.00 Credits)

EEC 1000	Introduction to Early Childhood Education	3	
EEC 2002	Operation of an Early Childhood Facility	3	
EEC 2202	Program Development in Early Childhood Education	3	
EEC 2407	Facilitating Social Development	3	

PROGRAM CORE REQUIREMENTS (12.00 Credits)

EDF 1005	Introduction to the Education Profession	3	
EME 2040	Introduction to Technology for Educators	3	Prerequisite: CGS 1060C
--OR--			
EME 2071	Educating Young Children for Digital Literacy in the 21st Century	3	
EDF 2144	Maximizing Student Potential in the School Context	3	
EDG 2943	Educational Service Field Work	3	Prerequisites: EEC 1000, EEC 1200,

MAJOR COURSE ELECTIVE (12.00 Credits)

EEC 1200	Early Childhood Curriculum I	3	
EEC 1311	Early Childhood Curriculum II	3	
EEC 1380	Classrooms for All Young Children	3	
EEC 1522	Infant-Toddler Environments	3	
EEC 1713	Helping All Young Children Become Independent Learners	3	
EEC 1752	Knowing and Understanding All Young Children	3	
EEC 1753	Observing and Assessing All Young Children	3	
EEC 2201	Developing Curriculum for Infants and Toddlers	3	
EEC 2520	Early Childhood Organization Leadership and Management	3	
EEC 2523	Programming & Management for Early Childhood Administrators	3	
EEC 2527	Legal & Financial Issue in Child Care	3	

ELECTIVES (9.00 credits)

ANT 2410	Introduction to Cultural Anthropology	3	
BSC 2020	Human Biology: Fundamentals of Anatomy/Physiology	3	
CGS 1060C	Introduction to Computer Technology and Applications	4	
CLP 1006	Psychology of Personal Effectiveness	3	
DAN 2100	Dance Appreciation	3	
DEP 2000	Human Growth & Development	3	
ENC 1102	English Composition 2	3	Prerequisite: ENC 1101
HUN 1201	Essentials of Nutrition	3	
ISS 1120	The Social Environment	3	
LIT 2480	Issues in Literature & Culture	3	Prerequisite: ENC 1102
MGF 1131	Mathematics in Context	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
PHI 2604	Critical Thinking/Ethics	3	Prerequisite: ENC 1101
PSC 1515	Energy in the Natural Environment	3	
PSY 2012	Introduction to Psychology	3	
SPC 1017	Introduction to Communication	3	
SYG 2000	Introduction to Sociology	3	

Miami Dade College

Early Childhood Education – Administrator
Associate in Science | Code: 27033 | 60 credits
CIP (1413121004**)**
Effective Term: Fall 2025 (2257)

The Early Childhood Education Associate in Science degree program provides the student with appropriate coursework in Administrator Specialization. Students may complete the Advanced Director's Credential and/or College Credit Certificates as part of their Associate in Science degree. This program is stackable towards the Bachelor of Science (BS) in Early Childhood Education.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Anatomy	3	
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Sciences	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the United States since 1877	3	
POS 2041	American Federal Government	3	

COMPUTER COMPETENCY
Test type(s) needed:
Computer Skills Placement (CSP)
---OR---
CGS 1060C Introduction to Computer Technology and Applications

MAJOR CORE REQUIREMENTS (12.00 Credits)

EEC 2002	Operation of an Early Childhood Facility	3	
EEC 2520	Early Childhood Organization Leadership and Management	3	
EEC 2523	Programming & Management for Early Childhood Administrator	3	
EEC 2527	Legal & Financial Issue in Child Care	3	

PROGRAM CORE REQUIREMENTS (12.00 Credits)

EDF 1005	Introduction to the Education Profession	3	
EME 2040	Introduction to Technology for Educators	3	Prerequisite: CGS 1060C
--OR--			
EME 2071	Educating Young Children for Digital Literacy in the 21st Century	3	
EDF 2144	Maximizing Student Potential in the School Context	3	
EDG 2943	Educational Service Field Work	3	Prerequisites: EEC 1000, EEC 1200, EEC 1311, EEC 1522, EEC 2201, EEC 2407

MAJOR COURSE ELECTIVE (12.00 Credits)

EEC 1000	Introduction to Early Childhood Education	3	
EEC 1200	Early Childhood Curriculum I	3	
EEC 1311	Early Childhood Curriculum II	3	
EEC 1380	Classrooms for All Young Children	3	
EEC 1522	Infant-Toddler Environments	3	
EEC 1713	Helping All Young Children Become Independent Learners	3	
EEC 1752	Knowing and Understanding All Young Children	3	
EEC 1753	Observing and Assessing All Young Children	3	
EEC 2201	Developing Curriculum for Infants and Toddlers	3	
EEC 2407	Facilitating Social Development	3	

ELECTIVES (9.00 Credits)

ANT 2410	Introduction to Cultural Anthropology	3	
BSC 2020	Human Biology: Fundamentals of Anatomy/Physiology	3	
CGS 1060C	Introduction to Computer Technology and Applications	4	
CLP 1006	Psychology of Personal Effectiveness	3	
DAN 2100	Dance Appreciation	3	
DEP 2000	Human Growth & Development	3	
ENC 1102	English Composition 2	3	Prerequisite: ENC 1101
HUN 1201	Essentials of Nutrition	3	
ISS 1120	The Social Environment	3	
LIT 2480	Issues in Literature & Culture	3	Prerequisite: ENC 1102
MGF 1131	Mathematics in Context	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
PHI 2604	Critical Thinking/Ethics	3	Prerequisite: ENC 1101
PSC 1515	Energy in the Natural Environment	3	
PSY 2012	Introduction to Psychology	3	
SPC 1017	Introduction to Communication	3	
SYG 2000	Introduction to Sociology	3	

Miami Dade College

Early Childhood Education – Infant-Toddler
Associate in Science | Code: 27032 | 60 credits
CIP (1413121004**)**
Effective Term: Fall 2025 (2257)

The Early Childhood Education Associate in Science degree program provides the student with appropriate coursework in Infant-Toddler Specialization. Students may complete the Florida Child Care Professional Certificate (FCCPC) and/or College Credit Certificates as part of their Associate in Science degree. This program is stackable towards the Bachelor of Science (BS) in Early Childhood Education.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Anatomy	3	
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Sciences	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the United States since 1877	3	
POS 2041	American Federal Government	3	

COMPUTER COMPETENCY
Test type(s) needed:
Computer Skills Placement (CSP)
---OR---
CGS 1060C Introduction to Computer Technology and Applications

MAJOR CORE REQUIREMENTS (12.00 Credits)

EEC 1000	Introduction to Early Childhood Education	3	
EEC 1522	Infant-Toddler Environments	3	
EEC 2201	Developing Curriculum for Infants and Toddlers	3	
EEC 2407	Facilitating Social Development	3	

PROGRAM CORE REQUIREMENTS (12.00 Credits)

EDF 1005	Introduction to the Education Profession	3	
EME 2040	Introduction to Technology for Educators	3	Prerequisite: CGS 1060C
--OR--			
EME 2071	Educating Young Children for Digital Literacy in the 21st Century	3	
EDF 2144	Maximizing Student Potential in the School Context	3	
EDG 2943	Educational Service Field Work	3	Prerequisites: EEC 1000, EEC 1200, EEC 1311, EEC 1522, EEC 2201, EEC 2407

MAJOR COURSE ELECTIVE (12.00 Credits)

EEC 1200	Early Childhood Curriculum I	3	
EEC 1311	Early Childhood Curriculum II	3	
EEC 1380	Classrooms for All Young Children	3	
EEC 1713	Helping All Young Children Become Independent Learners	3	
EEC 1752	Knowing and Understanding All Young Children	3	
EEC 1753	Observing and Assessing All Young Children	3	
EEC 2002	Operation of an Early Childhood Facility	3	
EEC 2520	Early Childhood Organization Leadership and Management	3	
EEC 2523	Programming & Management for Early Childhood Administrator	3	
EEC 2527	Legal & Financial Issue in Child Care	3	

ELECTIVES (9.00 Credits)

ANT 2410	Introduction to Cultural Anthropology	3	
BSC 2020	Human Biology: Fundamentals of Anatomy/Physiology	3	
CGS 1060C	Introduction to Computer Technology and Applications	4	
CLP 1006	Psychology of Personal Effectiveness	3	
DAN 2100	Dance Appreciation	3	
DEP 2000	Human Growth & Development	3	
ENC 1102	English Composition 2	3	Prerequisite: ENC 1101
HUN 1201	Essentials of Nutrition	3	
ISS 1120	The Social Environment	3	
LIT 2480	Issues in Literature & Culture	3	Prerequisite: ENC 1102
MGF 1131	Mathematics in Context	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
PHI 2604	Critical Thinking/Ethics	3	Prerequisite: ENC 1101
PSC 1515	Energy in the Natural Environment	3	
PSY 2012	Introduction to Psychology	3	
SPC 1017	Introduction to Communication	3	
SYG 2000	Introduction to Sociology	3	

Miami Dade College

Early Childhood Education – Preschool
Associate in Science | Code: 27031 | 60 credits
CIP (1413121004**)**
Effective Term: Fall 2025 (2257)

The Early Childhood Education Associate in Science degree program provides the student with appropriate coursework in Preschool Specialization. Students may complete the Florida Child Care Professional Certificate (FCCPC) and/or College Credit Certificates as part of their Associate in Science degree. This program is stackable towards the Bachelor of Science (BS) in Early Childhood Education.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Anatomy	3	
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Sciences	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the United States since 1877	3	
POS 2041	American Federal Government	3	

COMPUTER COMPETENCY
Test type(s) needed:
Computer Skills Placement (CSP)
---OR---
CGS 1060C Introduction to Computer Technology and Applications

MAJOR CORE REQUIREMENTS (12.00 Credits)

EEC 1000	Introduction to Early Childhood Education	3	
EEC 1200	Early Childhood Curriculum I	3	
EEC 1311	Early Childhood Curriculum II	3	
EEC 2407	Facilitating Social Development	3	

PROGRAM CORE REQUIREMENTS (12.00 Credits)

EDF 1005	Introduction to the Education Profession	3	
EME 2040	Introduction to Technology for Educators	3	Prerequisite: CGS 1060C
--OR--			
EME 2071	Educating Young Children for Digital Literacy in the 21st Century	3	
EDF 2144	Maximizing Student Potential t in the School Contex	3	
EDG 2943	Educational Service Field Work	3	Prerequisites: EEC 1000, EEC 1200, EEC 1311, EEC 1522, EEC 2201, EEC 2407

MAJOR COURSE ELECTIVE (12.00 Credits)

EEC 1380	Classrooms for All Young Children	3	
EEC 1522	Infant-Toddler Environments	3	
EEC 1713	Helping All Young Children Become Independent Learners	3	
EEC 1752	Knowing and Understanding All Young Children	3	
EEC 1753	Observing and Assessing All Young Children	3	
EEC 2002	Operation of an Early Childhood Facility	3	
EEC 2201	Developing Curriculum for Infants and Toddlers	3	
EEC 2520	Early Childhood Organization leadership and Management	3	
EEC 2523	Programming & Management for Early Childhood Administrators	3	
EEC 2527	Legal & Financial Issue in Child Care	3	

ELECTIVES (9.00 Credits)

ANT 2410	Introduction to Cultural Anthropology	3	
BSC 2020	Human Biology: Fundamentals of Anatomy/Physiology	3	
CGS 1060C	Introduction to Computer Technology and Applications	4	
CLP 1006	Psychology of Personal Effectiveness	3	
DAN 2100	Dance Appreciation	3	
DEP 2000	Human Growth & Development	3	
ENC 1102	English Composition 2	3	Prerequisite: ENC 1101
HUN 1201	Essentials of Nutrition	3	
ISS 1120	The Social Environment	3	
LIT 2480	Issues in Literature & Culture	3	Prerequisite: ENC 1102
MGF 1131	Mathematics in Context	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
PHI 2604	Critical Thinking/Ethics	3	Prerequisite: ENC 1101
PSC 1515	Energy in the Natural Environment	3	
PSY 2012	Introduction to Psychology	3	
SPC 1017	Introduction to Communication	3	
SYG 2000	Introduction to Sociology	3	

Miami Dade College

Electronics Engineering Technology
Associate in Science | Code: 26039 | 68 credits
CIP (1615030301**)**
Effective Term: Fall 2025 (2257)

This program transfers to four-year institutions. See department advisor for information. The Electronics Engineering Technology program prepares students for work as technicians in various fields of electronics technology. No previous experience is required to enter. Courses offered cover basic and advanced electrical circuits, semi-conductors, integrated circuits, pulse circuits, digital computer circuits, electrical machinery, communication systems and industrial control. Theory and laboratory experience is provided.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities 3		
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
PHY 2053	Physics (without Calculus) 1	3	Prerequisite: MAC 1114 or MAC 1147; Corequisite: PHY 2053L
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C Introduction to Computer Technology & Applications			
MAJOR COURSE REQUIREMENTS (45.00 Credits)			
CET 1110C	Digital Circuits	4	Prerequisite: EET 1015C, MAC 1105; Pre/Corequisite: COP 2270
CET 2113C	Advanced Digital Circuits	4	Prerequisite: CET 1110C, COP 2270; Pre/Corequisite: EET 1141C
CET 2123C	Microprocessors	4	Prerequisite: CET 1110C and COP 2270
COP 2270	"C" for Engineers	4	Pre/Corequisite: MAC 1105
EET 1015C	Direct Current Circuits	4	Prerequisite: MAC 1105

EET 1025C	Alternating Current Circuits	4	Prerequisite: EET 1015C; Pre/ Corequisite: MAC 1114 or MAC 1147
EET 1141C	Electronics 1	4	Prerequisite: EET 1025C, and MAC 1114 or MAC 1147
EET 2101C	Electronics 2	4	Prerequisite: EET 1141C
ETI 2670	Engineering Economic Analysis	3	
ETS 2673C	Programmable Logic Controls	4	
MAC 1114	Trigonometry	3	Prerequisite: MAC 1105 or MAC 1106
MAC 1140	Pre-Calculus Algebra	3	Prerequisite: MAC 1105

MAJOR COURSE ELECTIVE (8.00 Credits)

EET 1082	Introduction to Electronics	3	
EET 2323C	Analog Communications	4	Prerequisite: EET 1141C
EET 2351C	Digital and Data Communications	4	Prerequisite: CET 2123C
EGN 2200	Computer Applications in Engineering	3	

Miami Dade College

Emergency Medical Services
Associate in Science | Code: 23047 | 73 credits
CIP (1351090402**)**
Effective Term: Fall 2025 (2257)

The Associate in Science degree in Emergency Medical Services is designed according to national and state standards. Graduates will perform as advanced practitioners and as leaders in the technical supervisory and managerial aspects of advanced emergency care. Graduates will be prepared primarily for employment in agencies of advanced emergency care. Graduates will be prepared primarily for employment in agencies providing pre-hospital emergency medical care and secondarily, for jobs in emergency and other acute care areas of the hospital.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
NATURAL SCIENCE (3.00 credits)			
BSC 2085	Human Anatomy and Physiology 1	3	Corequisite: BSC 2085L
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C Introduction to Computer Technology & Applications			
SCIENCE (5.00 Credits)			
BSC 2085L	Human Anatomy and Physiology 1 Laboratory	1	Corequisite: BSC 2085
BSC 2086	Human Anatomy & Physiology 2	3	Prerequisite: BSC 2085; Corequisite: BSC 2086L
BSC 2086L	Human Anatomy & Physiology 2 Laboratory	1	Prerequisite: BSC 2085, BSC 2085L; Corequisite: BSC 2086

ELECTIVES (3.00 Credits)

MNA 1345	Effective Supervision	3	

FIRST TERM IN PROGRAM (10.00 Credits)

EMS 1119	Emergency Medical Technician	4	Corequisite: EMS 1119L, EMS 1431
EMS 1119L	Emergency Medical Technician Laboratory	3	Corequisite: EMS 1119, EMS 1431 and Clinic
EMS 1431	EMT Hospital/Field Experience	3	Corequisite: EMS 1119, EMS 1119L
---OR---			
EMS 9996	Emergency Medical Technician - Basic 10		

SECOND TERM IN PROGRAM (15.00 Credits)

EMS 2601	Paramedic Lecture 1	8	Prerequisite: EMS 1119, EMS 1119L, EMS 1431; Corequisite: 2601L, EMS 2664
EMS 2601L	Paramedic Laboratory 1	4	Prerequisite: EMS 1119, EMS 1119L, EMS 1431; Corequisite: 2601L, EMS 2664
EMS 2664	Paramedic Clinic 1	3	Prerequisite: EMS 1119, EMS 1119L, EMS 1431; Corequisite: 2601, EMS 2601l

THIRD TERM IN PROGRAM (15.00 Credits)

EMS 2602	Paramedic Lecture 2	8	Prerequisite: EMS 2601, EMS 2601L, EMS 2664; Corequisite: 2602L, 2665
EMS 2602L	Paramedic Laboratory 2	4	Prerequisite: EMS 2601, EMS 2601L, EMS 2664; Corequisite: 2602, 2665
EMS 2665	Paramedic Clinic 2	3	Prerequisite: EMS 2601, EMS 2601L, EMS 2664; Corequisite: 2602, 2602L

FOURTH TERM IN PROGRAM (10.00 Credits)

EMS 2311	Emergency Medical Operations	2	Prerequisite: MNA 1345
EMS 2659	EMS-Field Internship and Conference	8	Prerequisite: EMS 2602, EMS 2602L, EMS 2665

Miami Dade College

Entrepreneurship
Associate in Science | Code: 20002 | 60 credits
CIP (1552070308**)**
Effective Term: Fall 2025 (2257)

The A.S. in Entrepreneurship prepares students to start-up and operate a business or social venture with a foundation in opportunity recognition, analysis, business model development and business plan creation. Graduates will bring a critically- informed perspective to their own start-up venture, family-owned business, or social venture.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY REQUIREMENT			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C Introduction to Computer Technology & Applications			
MAJOR COURSE REQUIREMENTS (14.00 credits)			
ACG 2021	Financial Accounting	3	Corequisite: ACG 2021L
ACG 2021L	Financial Accounting Lab	1	Corequisite: ACG 2021

ACG 2071	Managerial Accounting	3	Prerequisite: ACG 2011 and ACG 2001 or ACG 2021; Corequisite: ACG 2071L
ACG 2071L	Managerial Accounting Lab	1	Prerequisite: ACG 2001, ACG 2011, ACG 2021, ACG 2021L; Corequisite: ACG 2071L
ECO 2013	Principles of Economics (Macro)	3	
ECO 2023	Principles of Economics (Micro)	3	Prerequisite: MAT 1033

NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.

PROGRAM CORE REQUIREMENTS (12.00 credits)

ACG2450	Microcomputers in Accounting	3	Pre/Corequisite: ACG 2001 or ACG 2021

---OR---

TAX 2021	Taxation of Business Organizations	3	

---AND---

ENT 2201	Introduction to Lean Start-Up	3	Prerequisite: GEB 2112
GEB 2112	Introduction to Entrepreneurship	3	
MAR 1720	Marketing in a Digital World	3	

ELECTIVES (19.00 credits)

BUL 2241	Business Law 1	3	
CGS 1060C	Introduction to Computer Technology & Applications	4	
ENT 1501	Fundamentals of Changemaking and Social Innovation	3	
ENT 2212	Entrepreneurial Leadership	3	
ENT 2502	Starting and Growing a Social Venture	3	
ENT 2270	Family Business Management	3	
ENT 2421	Funding Your Venture	3	
MAC 2233	Business Calculus	3	Prerequisite: MAC 1105 or MAC 1106
MAR 2704	Marketing Web Analytics	3	
MAT 1033	Intermediate Algebra	3	Prerequisites: MA T0022C, or MAT 0028, or MAT 0057 or by placement score, or eligible exemption.
SPC 1017	Introduction to Communication	3	
SPC 2608	Introduction to Public Speaking	3	
STA 2023	Statistical Methods	3	Prerequisites: MAT 1033 or MGF 1131

Miami Dade College

Fashion Design
Associate in Science | Code: 22005 | 60 credits
CIP (1450040700**)**
Effective Term: Fall 2025 (2257)

The Associate in Science degree in Fashion Design prepares students to be leaders in the global fashion industry. Fashion Design courses ae intensive and real-world, focusing on the theoretical and practical, from the creative process and principles of design to the use of state-of-the-industry technology and software. All CTE classes require department approval.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
PHI 2010	Introduction to Philosophy	3	
MATHEMATICS (3.00 credits)			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
NATURAL SCIENCES (3.00 credits)			
EVR 1001	Introduction to Environmental Science	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C	Introduction to Computer Technology & Applications		
MAJOR COURSE REQUIREMENTS (45.00 Credits)			
Semester 1 (12.00 credits)			
CTE 1050	Introduction to Fashion Design & Related Industries	3	
CTE 1743C	Patternmaking Level 1	3	Corequisite: CTE 2310C
CTE 2310C	Clothing Construction Methods Level 1	3	Corequisite: CTE 1743C
CTE 2732	Fashion Illustration Technology	3	
Semester 2 (12.00 credits)			
CTE 1401	Introduction to Textile	3	
CTE 1721C	Fashion Design 1	3	Prerequisites: CTE 1743C, CTE 2310C
CTE 2330C	Clothing Construction Methods Level 2	3	Prerequisite: CTE 2310C

CTE 2745C	Patternmaking Level 2	3	Prerequisite: CTE 1743C

Semester 3 (12.00 credits)

CTE 1841C	Apparel Evaluation & Production	3	Prerequisites: CTE 2330C, CTE 2745C
CTE 2342C	Clothing Construction Methods Level 3	3	Prerequisite: CTE 2330C
CTE 2722C	Fashion Design 2	3	Prerequisite: CTE 1721C
CTE 2749C	Patternmaking Level 3	3	Prerequisite: CTE 2745C

Semester 4 (9.00 credits)

CTE 1942	Fashion Industry Internship	3	Prerequisite: Departmental Approval
CTE 2120	Portfolio Collection Development	3	Prerequisites: CTE 2342C, CTE 2749C
CTE 2760C	Creative Design	3	Prerequisites: CTE 2342C, CTE 2722C, CTE 2749C

NOTE: A Grade of "C" or higher is needed to pass all CTE classes.

Miami Dade College

Fashion Merchandising
Associate in Science | Code: 22020 | 60 credits
CIP (1252190200**)**
Effective Term: Fall 2025 (2257)

The Associate in Science degree in Fashion Merchandising offers students a comprehensive education of the fashion business. The program offers students instruction in process, skills, and designs from concept development through production for emergence into the fashion business or fashion design segments of the industry.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
PHI 2010	Introduction to Philosophy	3	
MATHEMATICS (3.00 credits)			
MGF 1131	Mathematics in Context	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
NATURAL SCIENCES (3.00 credits)			
EVR 1001	Introduction to Environmental Science	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C Introduction to Computer Technology & Applications			
MAJOR COURSE REQUIREMENTS (45.00 Credits)			
Semester 1 (12.00 credits)			
CTE 1050	Introduction to Fashion Design & Related Industries	3	
CTE 2732	Fashion Illustration Technology	3	
GEB 1011	Principles of Business	3	
MAR 1011	Principles of Marketing	3	
Semester 2 (12.00 credits)			
CTE 1801	Introduction to Merchandising	3	
CTE 2301	Product Development	3	
CTE 2610	Fashion Forecasting & Research	3	Prerequisites: CTE 1050, MAR 1011
MAR 1720	Marketing in the Digital World	3	

Semester 3 (9.00 credits)

CTE 2388	Principles of Contemporary Retailing	3	Prerequisite: CTE 1050
CTE 2802	Fashion Merchandising Strategies	3	
CTE 2836	Global Merchandising	3	Corequisite: CTE 2802

Semester 4 (12.00 credits)

CTE 1942	Fashion Industry Internship	3	Prerequisite: Departmental Approval
CTE 2111C	Digital Fashion Portfolio	3	Prerequisites: CTE 2732, CTE 2802
CTE 2800	Textile, Apparel & Retail Analysis	3	Prerequisite: CTE 2388
ENT 2212	Entrepreneurial Leadership	3	

NOTE: A Grade of "C" or higher is needed to pass all CTE classes.

Miami Dade College

Film Production Technology
Associate in Science | Code: 26044 | 64 credits
CIP (1650060213**)**
Effective Term: Fall 2025 (2257)

Lights... Camera... Action! South Florida has become a hotbed for independent filmmakers and music video producers. Learn what it takes to become a successful film producer, director, writer, editor, cinematographer, production manager and crewmember while earning an Associate in Science (A.S.) degree in Film Production Technology. Learn to write scripts, shoot film and digital media, and edit projects on non-linear editing systems. Students have opportunities to exhibit their work in film showcases and participate in hands-on workshops and seminars held in collaboration with the Miami International Film Festival.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	

COMPUTER COMPETENCY REQUIREMENT
Test type(s) needed:
Computer Competency Test (CCT)
---OR---
CGS 1060C Introduction to Computer Technology & Applications

MAJOR COURSE REQUIREMENTS (43.00 Credits)

FIL 1030	History of Film	3	
FIL 1100	Screenwriting 1: Introduction to Story Structure	3	
FIL 1420C	Film Production 1: Introduction to the Filmmaking Process	4	Corequisite: FIL 2552C
FIL 1431C	Film Production 2: Cinematography and Sound	4	Prerequisite: FIL 1420C; Corequisite: FIL 2553C
FIL 2131	Screenwriting 2: Character Development & Advanced Story Structure	3	Prerequisite: FIL 1100
FIL 2480C	Film Production 3: Directing	4	Prerequisites: FIL 1431C, FIL 2553C, RTV 1240C
FIL 2515C	Film Production 4: Producing the Short Film	4	Prerequisite: FIL 2480C
FIL 2552C	Editing Level 1: Introduction to Editing 3		
FIL 2553C	Editing Level 2: Intermediate Editing and Visual Effects	3	Prerequisite: FIL 2552C
FIL 2560C	Editing Level 3: Advanced Editing: Color Correction and Finishing	3	Prerequisite: FIL 2553C
FIL 2611	Film Business, Marketing, Distribution & Exhibition	3	Prerequisite: FIL 1431
RTV 1240C	Sound Design	3	
VIC 1000	Visual Communications	3	

MAJOR COURSE ELECTIVE (6.00 Credits)

FIL 1055	American Independent Cinema	3	
FIL 1060	Survey of Documentary Film	3	
FIL 2413	Screenwriting 3	3	Prerequisite: FIL 2131
FIL 2945	Film Internship	3	Prerequisite: FIL 2480C
FIL 2951	Film Festival Experience	3	
FIL 2990	Selected Studies	3	
TPP*		3	

Miami Dade College

Financial Services – Banking
Associate in Science | Code: 22026 | 60 credits
CIP (1252080100**)**
Effective Term: Fall 2025 (2257)

The Financial Services program is designed to meet the needs of students who plan to seek employment with commercial banks, stock brokerage companies and related financial organizations. It is also planned for students who are currently employed and desire advancement to positions of greater responsibility with financial organizations. This program meets most of the requirements for the American Institute of Banking diploma/ certificates. The Associate in Arts degree is also available to the student planning to transfer to a senior institution after graduation from MDC. Consult an advisor about which additional courses are included in that program.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
PHI 2010	Introduction to Philosophy	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
ESC 1000	General Education Earth Science	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C	Introduction to Computer Technology & Applications		
ELECTIVE REQUIREMENTS (6.00 Credits)			
ECO 2013	Principles of Economics (Macro)	3	
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131
MAJOR COURSE REQUIREMENTS (21.00 credits)			
ACG 2021	Financial Accounting	3	Corequisite: ACG 2021L
ACG 2021L	Financial Accounting Lab	1	Corequisite: ACG 2021
ACG 2071	Managerial Accounting	3	Prerequisite: ACG 2001, ACG 2011 or ACG 2021 and ACG 2001L,ACG 2011L or ACG 2021L Corequisite: ACG 2071
BAN 1004	Banking Fundamentals, Evolution and Compliance	3	

BAN 2210	Analyzing Financial Statements	3	Prerequisite: ACG 2021 and ACG 2021L
BAN 2511	Marketing for Financial Services	3	
MNA 1130	Writing for Financial Services	1	
MKA 1022	Relationship Selling and Sales Strategies	3	

PROGRAM CORE REQUIRED (18.00 credits)

ACG 1403	Excel for Business	2	
BAN 1231	Commercial Lending	3	Prerequisite: ACG 2021 and ACG 2021L
BAN 2211	Applied Financial Statement Analysis	3	Prerequisite: BAN 2210
BAN 2210	Analyzing Financial Statements	3	Prerequisite: ACG 2021
BAN 2511	Marketing for Financial Service	3	
FIN 1930	Special Topic Seminar	1	
REE 2304	Commercial Real Estate	3	

Miami Dade College

Financial Services – Wealth Management
Associate in Science | Code: 22024 | 60 credits
CIP (1252080100**)**
Effective Term: Fall 2025 (2257)

The Financial Services program is designed to meet the needs of students who plan to seek employment with commercial banks, stock brokerage companies and related financial organizations. It is also planned for students who are currently employed and desire advancement to positions of greater responsibility with financial organizations. This program meets most of the requirements for the American Institute of Banking diploma/ certificates. The Associate in Arts degree is also available to the student planning to transfer to a senior institution after graduation from MDC. Consult an advisor about which additional courses are included in that program.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
PHI 2010	Introduction to Philosophy	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
ESC 1000	General Education Earth Science	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877		
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY REQUIREMENT			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C Introduction to Computer Technology & Applications			
ELECTIVE REQUIREMENTS (6.00 Credits)			
ECO 2013	Principles of Economics (Macro)	3	
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131
MAJOR COURSE REQUIREMENTS (21.00 Credits)			
ACG 2021	Financial accounting	3	Corequisite: ACG 2021L
ACG 2021L	Financial accounting Lab	1	Corequisite: ACG 2021
ACG 2071	Managerial Accounting	3	Prerequisite: ACG 2011 and ACG 2001, or ACG 2021 Corequisite: ACG 2071L

ACG 2071L	Managerial Accounting Lab	1	Prerequisite: ACG 2001,ACG 2011 or ACG 2021 and ACG 2001L, ACG 2011L or ACG 2021L Corequisite: ACG 2071
BAN 1004	Banking Fundamentals, Evolution and Compliance	3	
FIN 2032	Fundamentals of Wealth Management Institutions, Markets and Products	3	
FIN 2000	Principles of Finance	3	
MNA 1130	Writing for Financial Services	1	
MKA 1022	Relationship Selling and Sales Strategies	3	

PROGRAM CORE REQUIRED (18.00 credits)

ACG 1403	Excel for Business	2	
BAN 2210	Analyzing Financial Statements	3	Prerequisite: ACG 2021 and ACG 2021L
FIN 1930	Special Topic Seminar	1	
FIN 2010	Investments in Stocks and Bonds	3	
FIN 2031	Risk Management and Compliance	3	
FIN 2100	Personal Finance	3	
FIN 2642	Financial Analysis and Valuation	3	Prerequisites: ACG 2021, ACG 2021L, BAN 2210

Miami Dade College

Fire Science Technology
Associates in Science | Code: 27018 | 60 Credits
CIP (1743020112**)**
Effective Term: Fall 2025 (2257)

The Fire Science Technology program prepares students for employment as Firefighting and Prevention Supervisors to supervise or manage firefighters who control and extinguish fires, protect life and property, and conduct rescue efforts. The program may also be beneficial to professionals seeking incentive benefits or career enhancement in the field. This program includes the courses required for Florida Bureau of Fire Standards and Training certification(s) including Fire Instructor 1 and 2, Fire Officer 1 and 2, Firesafety Inspector 1, and Apparatus and Pump Operator.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writin requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
PHI 2010	Introduction to Philosophy	3	Prerequisite: ENC 1101
MATHEMATICS (3.00 credits)			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education reading and writin requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
NATURAL SCIENCES (3.00 credits)			
CHM 1020	Chemistry for Liberal Studies	3	
SOCIAL SCIENCES (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Skills Placement (CSP)			
---OR---			
CGS 1060C	Introduction to Computer Technology & Application		
MAJOR CORE REQUIREMENTS (24.00 Credits)			
FFP 1000	Introduction to Fire Science	3	
FFP 1301	Fire Service Hydraulics	3	
FFP 1505	Fire Prevention Practices	3	
FFP 1540	Private Fire Protection Systems 1	3	
FFP 1740	Fire Service Course Delivery	3	
FFP 1810	Firefighting Tactics and Strategy 1	3	Prerequisite: FFP 1000
FFP 2120	Building Construction for the Fire Service	3	
FFP 2720	Company Officer	3	Prerequisite: FFP 1000

PROGRAM ELECTIVES (21.00 Credits)

BSC 2085	Anatomy and Physiology 1	3	
EMS 9995	Emergency Medical Responder	2	
EMS 9996	Emergency Medical Technician – Basic	10	
FFP 1302	Apparatus Operations	3	Prerequisite: FFP 1301
FFP 1510	Codes and Standards	3	
FFP 2521	Construction Documents and Plans Review	3	
FFP 2741	Fire Service Course Design	3	Prerequisite: FFP 1740
FFP 9996	Fire Fighting and Protection - Firefighter II	3	
MAT 1033	Intermediate Algebra	3	
SPC 1017	Introduction to Communication	3	

Miami Dade College

Funeral Services
Associate in Science | Code: 23049 | 72 credits
CIP (1312030100)
Effective Term: Fall 2025 (2257)

Students in the Funeral Services program are given a broad understanding of all phases of funeral home operations as well as the public health responsibilities of the funeral director and embalmer. The Funeral Services degree program at Miami Dade College is accredited by the American Board of Funeral Service Education (ABFSE), 992 Mantua Pike, Suite 108, Woodbury Heights, NJ 08097, (816) 233-3747. Web: www.abfse.org. All students must register to take the International Conference of Funeral Service Examining Boards, Inc. National Board Examination during their final semester. Students who plan Funeral Service licensure in other states must contract the respective state board to determine licensing requirements and the student is responsible for complying with all particular laws of that state. National Board Examination pass rates, graduation rates, and employment rates for this and other ABFSE-accredited programs are available at www.abfse.org. To request a printed copy of this program's rates, go to the Funeral Service Education Office (Building 3142) or by telephone 305-237-1244.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writng requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
PHI 2010	Introduction to Philosophy	3	Prerequisite: ENC 1101
MATHEMATICS (3.00 credits)			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
NATURAL SCIENCE (3.00 credits)			
BSC 1005	General Education Biology	3	
BSC 2010	Principles of Biology	3	
CHM 1020	General Education Chemistry	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C	Introduction to Computer Technology & Applications		
MAJOR COURSE REQUIREMENTS (12.00 credits)			
BSC 1084	Functional Human Anatomy	3	
FSE 1000	Introduction to Funeral Service	3	
AND			

BUL 2131	Legal Environment Business Law 1	3	
or			
BUL 2241	Business Law 1	3	
AND			
ACG 2001	Principles of Accounting 1	3	Corequisite: ACG 2001L
or			
ACG 2021	Financial Accounting	3	Corequisite: ACG 2021L
or			
FSE 2200	Funeral Service Accounting	3	

PROGRAM COURSE REQUIREMENTS (42.00 credits)

FSE 1080	Funeral Law	3	
FSE 1105	Funeral Service Chemistry	3	
FSE 2060	Funeral Directing	3	
FSE 2061	Funeral Service Counseling and Ethics	3	Prerequisites: ENC 1101, FSE 1000
FSE 2100	Embalming 1	3	Recommended Prep: BSC 1084; Corequisite: FSE 2100L
FSE 2100L	Embalming 1 Lab	2	Recommended Prep: BSC 1084; Corequisite: FSE 2100
FSE 2106	Funeral Service Microbiology	3	
FSE 2120C	Restorative Art	4	Prerequisites: FSE 2100, FSE 2100L
FSE 2140	Embalming 2	3	Prerequisites: FSE 2100, FSE 2100L; Corequisite: FSE 2140L
FSE 2140L	Embalming 2 Lab	2	Prerequisites: FSE 2100, FSE 2100L; Corequisite: FSE 2140
FSE 2160	Pathology	3	
FSE 2201	Funeral Home Operations	3	
FSE 2203C	Funeral Home Applications	4	Prerequisites: FSE 2060, FSE 2201
AND			
FSE 2202	Funeral Home Management	3	
or			
GEB 1011	Principles of Management	3	

PROFESSIONAL REVIEW (3.00 credits)

FSE 2930L	Funeral Service Professional Review 1	2	Prerequisites: FSE 1000, FSE1080, FSE 1105, FSE 2060, FSE 2061, FSE 2100, FSE 2100L, FSE2106, FSE2120C, FSE 2140, FSE 2140L, FSE 2160, FSE2201, FSE 2202, FSE 2203C
FSE 2932L	Funeral Service Professional Review 2	1	Prerequisite: FSE 2930L

IMPORTANT INFORMATION:
Students must apply in person in the Funeral Service Education (FSE) office. Students are required to attend program orienta6on prior to admission into the Funeral Service Education Program.

Students must complete all general education and major core coursework with a minimum of 3.0 GPA for program admission and maintain a minimum 2.5 GPA for gradua6on. Students who receive a total of three grades of 'D', 'F', or 'W' across both major and program courses will be subject to removal from the program.

Students must pass both sec0ons of the Na0onal Board Examina0on to be licensed as a Combina0on Funeral Director & Embalmer or Embalmer Only in the State of Florida (2015).

Students must maintain good standing and enroll in at least 12 credit hours per major semester or be subject to removal from the program.

Students must complete a mandatory 1-year internship and can start applying aHer comple0ng 75% of the program. Florida Statutes require fingerprin0ng and a background check upon applica0on for licensure. Addittionally, many funeral homes require a background check as well as drug tes0ng prior to employment. Individuals who possess a criminal record or history of bad character may be denied licensure in this or any other state solely based on their criminal background / character even though they successfully complete this program.

Students who completed any FSE course more than 3 years ago will be required to either take a competency course or retake the class.

Students should check their individualized Degree Audit Report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami Dade. This outline includes current graduation requirements. The final responsibility for meetting graduation requirements rests with the student.

Miami Dade College

Game Development and Design
Associate in Science | Code: 25075 | 60 credits
CIP (1550041100**)**
Effective Term: Fall 2025 (2257)

This curriculum allows students to explore the entertainment technology landscape while still pursuing a broad-based education. With an emphasis on game programming, the program exposes students to the development and design processes. Students can further specialize in game design, production, engines and systems, graphics programming and animation, mobile, and more.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C Introduction to Computer Technology & Application			
MAJOR CORE REQUIREMENTS (8.00 Credits)			
COP 1334	Introduction to C++ Programming	4	
COP 2335	Object Orientated Programming Using C++	4	Prerequisite: COP 1334

PROGRAM CORE REQUIREMENTS (37.00 Credits)

CAP 2047	User Interface Design	4	Prerequisites: DIG 1710 and DIG 1729C; Pre/Co-requisite: COP 2335
CAP 2048	Game Development Project I	3	Prerequisites: DIG 1430; CAP 2047 or DIG 1302; COP 1334 or DIG 1111; COP 2335 or DIG 1437; DIG 1710 or DIG 1132 Pre/Corequisites: DIG 2712 or DIG 2113
CAP 2920C	Game Development Project II	3	Prerequisites: CAP 2048; DIG 2712 or DIG 2113
DIG 1430	Storyboarding	3	
DIG 1710	Introduction to Game Development	4	
DIG 1729C	Game Engines	4	
DIG 1772C	Introduction to Virtual & Augmented Reality Technologies	4	Prerequisite: DIG 1729C
DIG 2626	Artificial Intelligence for Game Development	4	Prerequisites: CAP 2047 and COP 2335
DIG 2712	Level Building & Design	4	Prerequisites: CAP 2047; COP 2335; DIG 1430
DIG 2717C	Game System Design	4	Prerequisites: CAP 2047; DIG 2712; MAC 1105

Miami Dade College

Graphic Design Technology
Associate in Science | Code: 26031 | 64 credits
CIP (1611080300**)**
Effective Term: Fall 2025 (2257)

The Graphic Design Technology A.S. degree program prepares students for employment as graphic designers, illustrators, photo editors, page layout artists, advertising designers, package designers, branding and visual identity designers. Coursework includes the production workflow process from the design concept to the finished printed or multimedia product.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	

COMPUTER COMPETENCY
Test type(s) needed:
Computer Competency Test (CCT)
---OR---
CGS 1060C Introduction to Computer Technology & Applications

MAJOR COURSE REQUIREMENTS (46.00 credits)

GRA 1111C	Graphic Design Fundamentals	4	
GRA 1113C	Visual Identity & Branding Design	4	Prerequisites: GRA 1111C, GRA 1206C, and GRA 2117C
GRA 1206C	Typography Fundamentals	4	
GRA 1280C	Digital Imaging Fundamentals	4	
GRA 1750	Web Design Fundamentals	3	
GRA 2117C	Digital Illustration Fundamentals	4	
GRA 2121C	Publication Design	4	Prerequisites: GRA 1111C, GRA 1206C, and GRA 2117C; Pre/Corequisite: GRA 1280C
GRA 2151C	Advanced Digital Illustration and Imaging	4	Prerequisites: GRA 1280C and GRA 2117C
GRA 2203C	Portfolio and Business Practices for Designers	3	Prerequisites: GRA 2121C and GRA 2151C
GRA 2207C	Capstone Project	4	Prerequisite: GRA 2151C
GRA 2545C	Package Design	4	Prerequisite: GRA 2151C
GRA 2546C	Advertising Design	4	Prerequisites: GRA 1113C and GRA 2151C

MAJOR COURSE ELECTIVE (3.00 credits)

ART 1300C	Drawing	3-4	
ART 1330C	Figure Drawing	3-4	
GRA 1949	Co-op Work Experience 1: GRA	3	
GRA 2305C	Special Topics in Graphic Design	3	Prerequisite: GRA 2151C
GRA 2949	Co-op Work Experience 2: GRA	3	

Miami Dade College

Graphic Internet Technology
Associate in Science | Code: 26050 | 60 credits
CIP (1611080103**)**
Effective Term: Fall 2025 (2257)

The Graphic Internet Technology program is designed to prepare creative students for a rewarding and challenging career as web designers. Students will develop a wide variety of Internet communications skills and will learn to design, produce and distribute communications on the web.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption)
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C	Introduction to Computer Technology & Applications		
MAJOR COURSE REQUIREMENTS (42.00 Credits)			
GRA 1111C	Graphic Design Fundamentals	4	

GRA 1206C	Typography Fundamentals	4	
GRA 1280C	Digital Imaging Fundamentals	4	
GRA 1750	Web Design Fundamentals	3	
GRA 1751	Fixed-Layout Web Design	4	Prerequisite: GRA 1750
GRA 1752	Motion Graphics for Web Design	4	Prerequisites: GRA 1750, GRA 2117C
GRA 1754	Responsive Web Design	4	Prerequisite: GRA 1751
GRA 2117C	Digital Illustration Fundamentals	4	
GRA 2156C	User Interface and Experience Design	4	Prerequisites: GRA 1751, GRA 1754
GRA 2203C	Portfolio and Business Practices for Designers	3	
GRA 2727	Dynamic Web Design	4	Prerequisites: GRA 1754, GRA 2156C

PROGRAM ELECTIVES (3.00 Credits)

GRA 1949	Co-op Work Experience 1: GRA	3	
GRA 2207C	Capstone Project	4	Prerequisite: GRA 2151C
GRA 2755	Emerging Technologies for Multimedia Web Design	3	Prerequisite: GRA 2727
GRA 2949	Co-op Work Experience 2: GRA	3	

Miami Dade College

Health Information Technology
Associate in Science | Code: 23052 | 70 credits
CIP (1351070700**)**
Effective Term: Fall 2025 (2257)

The Health Information Technology program is designed to educate and prepare graduates with entry-level job skills. The Associate in Science degree in Health Information Technology engages students in healthcare, business, and the technology used in the industry.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MGF 1131	Mathematics in Context	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption)
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
BSC 2085	Human Anatomy and Physiology 1	3	Corequisite: BSC 2085L
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C Introduction to Computer Technology & Applications			
SCIENCE REQUIREMENTS (5.00 Credits)			
BSC 2085L	Human Anatomy and Physiology 1 Laboratory	1	Corequisite: BSC 2085
BSC 2086	Human Anatomy & Physiology 2	3	Prerequisite: BSC 2085; Corequisite: BSC 2086L
BSC 2086L	Human Anatomy & Physiology 2 Laboratory	1	Prerequisite: BSC 2085L; Corequisite: BSC 2086

ELECTIVE REQUIREMENT (3.00 credits)

ENC 1102	English Composition 2	3	Prerequisite: ENC 1101

MAJOR CORE REQUIREMENTS (47.00 credits)

HIM 1000	Health Information Technology	2	
HIM 1110	Health Record Technology & Data Collection	2	Corequisite: HIM 1110L
HIM 1110L	Health Record Technology & Data Collection Laboratory	3	Corequisite: HIM 1110
HIM 1300	Health Care Facilities and Delivery System	2	
HIM 1800	Professional Practice I	2	Corequisites: HIM 1110, HIM 1110L
HIM 2012	Legal Aspects of Health Care 2		
HIM 2211C	Health Information Technologies	2	Prerequisite: HIM 1110L
HIM 2214C	Health Statistics	2	Prerequisites: HIM 1110, HIM 1110L; Corequisite: HIM 2512C
HIM 2222	ICDCoding Systems	2	Prerequisites: BSC 2085, BSC 2085L Corequisite: HIM 2222L
HIM 2222L	ICD Coding Systems Laboratory	3	Prerequisites: BSC 2085, BSC 2085L Corequisite: HIM 2222
HIM 2234	Advanced ICD Coding Systems & Reimbursement	2	Prerequisite: HIM 2222
HIM 2234L	Advanced ICD Coding Systems & Reimbursement Laboratory	1	Prerequisite: HIM 2222L
HIM 2253C	Current Procedural Terminology	2	
HIM 2400C	Diversified Non-Hospital Health Record	2	
HIM 2433	Pathophysiology and Pharmacology	3	Prerequisites: BSC 2085, BSC 2085L, BSC 2086, BSC 2086L
HIM 2472	Medical Terminology	3	
HIM 2500	Data Management/Quality Assessment	2	Prerequisites: HIM 1110, HIM 1110L; Corequisite: HIM 2500L
HIM 2500L	Data Management/Quality Assessment Laboratory	1	Prerequisites: HIM 1110, HIM 1110L; Corequisite: HIM 2500
HIM 2512C	Supervision and Management for Health Information Technology	2	Prerequisites: HIM 1000, HIM 1110, HIM 1110L, HIM 1800
HIM 2652C	Electronic Health Record	3	Prerequisite: HIM 2211C
HIM 2810	Professional Practice Experience 2	2	Corequisites: HIM 2234, HIM 2234L
HIM 2820	Seminar and Professional Practice Experience 3	2	Prerequisite: HIM 2810 Corequisites: HIM 2500, HIM 2500L

***HSC 0003 Introduction to Health Care Lecture and Lab**

Student must be enrolled or have successfully completed HSC 0003 – Introduction to Health Care (2.5 credits) and HSC 0003L – Introduction to Health Care Lab (.5 credits) prior to applying to the program.

Miami Dade College

Health Sciences
Associate in Science | Code: 23081 | 60 credits
CIP (1351070101**)**
Effective Term: Fall 2025 (2257)

The Health Sciences program provides students an introduction to the healthcare field and an in-depth science background to prepare them for a health-related career or a graduate professional health program or other graduate program.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
HUM 1020	Humanities	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
BSC 2085	Human Anatomy and Physiology 1	3	Corequisite: BSC 2085L
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C Introduction to Computer Technology & Applications			
SCIENCE REQUIREMENTS (20.00 Credits)			
BSC 2085L	Human Anatomy and Physiology 1 Laboratory	1	Corequisite: BSC 2085
BSC 2086	Human Anatomy & Physiology 2	3	Prerequisite: BSC 2085; Corequisite: BSC 2086L
BSC 2086L	Human Anatomy & Physiology 2 Laboratory	1	Prerequisites: BSC 2085, BSC 2085L; Corequisite: BSC 2086
CHM 1045	General Chemistry & Qualitative Analysis	3	Prerequisite: CHM 1025 or CART; Corequisites: CHM 1045L, MAC 1105
CHM 1045L	General Chemistry and Qualitative Analysis Laboratory	2	Prerequisite: CHM 1025 or H.S. Chemistry; Corequisites: CHM 1045, MAC 1105
CHM 1046	General Chemistry and Qualitative Analysis	3	Prerequisites: CHM 1045, MAC 1105; Corequisite: CHM 1046L
CHM 1046L	General Chemistry & Qualitative Analysis Laboratory	2	Prerequisites: CHM 1045, MAC 1105; Corequisite: CHM 1046

MCB 2010	Microbiology	3	Prerequisites: BSC 2010, BSC 2010L or BSC 2085, BSC 2085L, CHM 1033, CHM 1033L or CHM 1045, CHM 1045L
MCB 2010L	Microbiology Laboratory	2	Prerequisites: BSC 2010, BSC 2010L or BSC 2085, BSC 2085L, CHM 1033, CHM 1033L or CHM 1045, CHM 1045L Corequisite: MCB 2010

ELECTIVES (3.00 Credits)

PSY 2012	Introduction to Psychology	3	

MAJOR CORE REQUIREMENTS (22 credits)

HSA 2532	Medical Documentation in Health Care	1	
PAS 1800C	Physical Diagnosis I	2	Prerequisites: BSC 2085, BSC 2085L, BSC 2086, BSC 2086L, CHM 1045, CHM 1045L, CHM 1046, CHM 1046L, MCB 2010, MCB 2010L
PAS 1801C	Physical Diagnosis II	2	Prerequisites: PAS 1800C, PAS 1803, PAS 1831, PAS 2936
PAS 1803	Clinical Anatomy and Physiology	2	Prerequisites: BSC 2085, BSC 2085L, BSC 2086,BSC 2086L, CHM 1045, CHM 1045L, CHM 1046, CHM 1046L, MCB 2010, MCB 2010L
PAS 1811C	Clinical Medicine 1 for PAs	5	Prerequisites: PAS 1800C, PAS 1803, PAS 1831, PAS 2936
PAS 1812	Behavioral & Community Medicine 1 for PAS	1	Prerequisites: PAS 1800C, PAS 1803, PAS 1831, PAS 2936
PAS 1813	Pathophysiological Basis of Disease 1	2	Prerequisites: PAS 1800C, PAS 1803, PAS 1831, PAS 2936
PAS 1822L	Electrocardiography	1	Prerequisites: PAS 1800C, PAS 1803, PAS 1831, PAS 2936
PAS 1823	Pharmacology I	4	Prerequisites: PAS 1800C, PAS 1803, PAS 1831, PAS 2936
PAS 1831	Clinical Diagnostic Imaging	1	Prerequisites: BSC 2085, BSC 2085L, BSC 2086, BSC 2086L, CHM 1045, CHM 1045L, CHM 1046, CHM 1046L, MCB 2010, MCB 2010L
PAS 2936	Contemporary Issues for the PA	1	

Miami Dade College

Health Sciences - Health Services Management
Associate in Science | Code: 23082 | 60 credits
CIP (1351070101**)**
Effective Term: Fall 2025 (2257)

The Associate in Science degree in Health Sciences: Health Service Management is designed to introduce graduates to the healthcare field and an in-depth background on health care management to prepare them for a health-related career or a graduate professional health program or other graduate programs. In addition, students will acquire extensive knowledge on legal and ethical responsibilities within the health care system, current issues in the health care system, health services management concepts, Health care quality management, and managing organizations in a multi-cultural environment.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
NATURAL SCIENCE (3.00 credits)			
BSC 2085	Human Anatomy and Physiology 1	3	Corequisite: BSC 2085L
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C Introduction to Computer Technology & Application			
SCIENCE REQUIREMENTS (5.00 Credits)			
BSC 2085L	Human Anatomy and Physiology 1 Laboratory	1	Corequisite: BSC 2085
BSC 2086	Human Anatomy & Physiology 2	3	Prerequisite: BSC 2085; Corequisite: BSC2 086L
BSC 2086L	Human Anatomy & Physiology 2 Laboratory	1	Prerequisite: BSC 2085, BSC 2085L; Corequisite: BSC 2086

MAJOR CORE REQUIREMENTS (40.00 Credits)

ACG 2021	Financial Accounting	3	Corequisite: ACG 2021L
ACG 2021L	Financial Accounting Lab	1	Corequisite: ACG 2021
GEB 1011	Principles of Business	3	
HIM 1300	Health Care Facilities and Delivery System	2	
HIM 2012	Legal Aspects of Health Care	2	
HIM 2253C	Current Procedural Terminology Coding	2	
HIM 2472	Medical Terminology	3	
HIM 2652C	Electronic Health Records	3	
HSA 1102	Current Issues in Health	3	
HSA 1380	Health Care Quality Management	3	
HSA 2001	Interprofessional Team Based Health Care	2	
HSA 2181	Health Services Management Concepts	3	
HSC 1149	General Pharmacology for Health Care Professions	3	
HSC 2810	Professional Practice Experience	4	
MAN 2021	Principles of Management	3	

Miami Dade College

Histologic Technology
Associate in Science | Code: 23064 | 76 credits
CIP (1351100800**)**
Effective Term: Fall 2025 (2257)

The A.S. degree is designed for students who are looking for immediate entry into a career upon graduation. Most discipline courses directly relate to the identified career area. The remaining courses are comprised of general education courses. The Associate in Science degree in Histologic Technology, teaches the knowledge of tissue and cellular structure. Students will develop skills in preparing, fixing processing, embedding, sectioning, and staining tissue, including brain, kidney, bone and muscle tissue. Actual surgical specimens are used in the laboratory settings. Clinical practice is conducted in local health care facilities under the supervision of qualified registered professional personnel. Graduates are eligible for Florida State Licensure and Certification registry with the American Society of Clinical Pathologists

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
Communications (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
Humanities (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
Mathematics (3.00 credits)			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
Natural Science (3.00 credits)			
BSC 2085	Human Anatomy and Physiology 1	3	Corequisite: BSC 2085L
Social Science (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C Introduction to Computer Technology & Applications			
SCIENCE REQUIREMENTS (14.00 Credits)			
BSC 2085L	Human Anatomy and Physiology 1 Laboratory	1	Corequisite: BSC 2085
BSC 2086	Human Anatomy & Physiology 2	3	Prerequisite: BSC 2085; Corequisite: BSC 2026L

BSC 2086L	Human Anatomy & Physiology 2 Laboratory	1	Prerequisite: BSC 2085L; Corequisite: BSC 2086
CHM 1033	Chemistry for Health Sciences	3	Prerequisite: MAT 1033; Corequisite: CMH 1033L
CHM 1033L	Chemistry for Health Sciences lab	1	Prerequisite: MAT 1033; Corequisite: CHM 1033
MCB 2010	Microbiology	3	Prerequisites: BSC 2010, BSC 2010L; or BSC 2085, BSC 2085L; CHM 1045, CHM 1045L or CHM 1033, CHM 1033L; Corequisite: MCB 2010L
MCB 2010L	Microbiology Laboratory	2	Prerequisites: BSC 2010, BSC 2010L; or BSC 2085, BSC 2085L; CHM 1045, CHM 1045L or CHM 1033, CHM 1033L; Corequisite: MCB 2010

MAJOR CORE RQUIREMENTS (47.00 Credits)

MLT 1191	Histotechnology 1	3	Corequisite: MLT 1191L
MLT 1191L	Histotechnology 1 Lab	3	Corequisite: MLT 1191
MLT 1195C	Tissue Identification 1	3	Prerequisites: BSC 2085, BSC 2085L, BSC 2086, BSC 2086L
MLT 1196	Laboratory Safety	2	
MLT 2192	Histotechnology 2	3	P Prerequisites: MLT 1191, MLT 1191L; Corequisite: MLT 2192L
MLT 2192L	Histotechnology 2 Lab	2	Prerequisites: MLT 1191, MLT 1191L; Corequisite: MLT 2192
MLT 2197C	Tissue Identification 2	3	Prerequisites: MLT 1195C;
MLT 2198	Histochemistry	3	Prerequisites: MLT 1191, MLT 1191L, MLT 2192, MLT 2192L, CHM 1033, CHM 1033L; Corequisite: MLT 2198L
MLT 2198L	Histochemistry Lab	3	Prerequisites: MLT 1191, MLT 1191L, MLT 2192, MLT 2192L, CHM 1033, CHM 1033L; Corequisite: MLT 2198
MLT 2180C	Infections Disease and Control Practices	3	Prerequisites: MCB 2010, MCB 2010L;
MLT 1840L	Histology Clinical Practicum 1	5	Prerequisites: MLT 1191, MLT 1191L, MLT 1195C, MLT 1196, MLT 1752, MLT 2192, MLT 2192L, MLT 2197C, MLT 2198, MLT 2198L, MLT 2180C
HIM 2472	Medical Terminology	3	
MLT 2841L	Histology Clinical Practicum 2	5	Prerequisites: MLT 1191, MLT 1191L, MLT 1195C, MLT 1196, MLT 1752, MLT 2192, MLT 2192L, MLT 2197C, MLT 2198, MLT 2198L, MLT 2180C, MLT 1840L; Corequisite: MLT 2931
MLT 2931	Histology Seminar	3	Prerequisites: MLT 1191, MLT 1191L, MLT 1195C, MLT 1196,MLT 1752, MLT 2192, MLT 2192L, MLT 2197C, MLT 2198, MLT 2198L, MLT 2180C, MLT 1840L; Corequisite: MLT 2841L

Miami Dade College

Hospitality & Tourism Management
Associate in Science | Code: 22016 | 60 credits
CIP (1252090101**)**
Effective Term: Fall 2025 (2257)

The Hospitality and Tourism Management program provides professional preparation for a career in the hospitality industry. Hospitality management is presented as a core curriculum with emphasis on hotel, cruise-line, resorts, conventions, and institutional management. An internship program is required to provide practical experience in the field of the student's choice. The Associate in Arts degree is also available to the student planning to transfer to a four-year institution after graduation from MDC. Consult an advisor about which additional courses are included in that program.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
PHI 2010	Introduction to Philosophy	3	
MATHEMATICS (3.00 credits)			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
NATURAL SCIENCES (3.00 credits)			
BSC 1005	General Education Biology	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C	Introduction to Computer Technology & Applications		
***CREDITS FALL IN ELECTIVE AREA**			
MAJOR CORE REQUIREMENTS (18.00 Credits)			
HFT 1000	Introduction to Hospitality and Tourism	3	
HFT 1210	Human Resources in Hospitality	3	
HFT 1949	Co-Op Work-Study Internships 1	3	
HFT 2421	Managerial Accounting for Hospitality	3	
HFT 2449	Information Systems in the Hospitality and Tourism Industries	3	Prerequisite: HFT 1000
HFT 2750	Event and Meeting Management	3	

PROGRAM ELECTIVES (27.00 Credits)

CGS 1060C	Introduction to Computer Technology & Applications	4	
FSS 1100	Foodservice Purchasing	3	
FSS 1200	Culinary Terminology and Procedures	3	Corequisite: FSS 1202C
FSS 1202C	Food Production 1 – Fundamental Skills	3	Corequisite: FSS 1200
FSS 1920	Co-Op Work Experience 2	3	
HFT 1212	Safety and Sanitation	3	
HFT 1220	Communication and Supervision Development	3	
HFT 1300	Executive Housekeeping	3	
HFT 1454	Food and Beverage Cost Controls	3	
HFT 1611	Responsible Beverage Vendor	1	
HFT 1631	Risk Management & Security	3	
HFT 1841	Dining Room Service	3	Corequisite: HFT 1000
HFT 1841L	Dining Room Service Laboratory	1	
HFT 1852	Menu and Facilities Planning	3	Prerequisite: HFT 1000
HFT 2223	Training Skills and Development	3	
HFT 2241	Quality Guest Services in Hospitality	3	
HFT 2261	Restaurant Management	3	Prerequisite: HFT 1000
HFT 2410	Front Office Procedures and Lodging Operations	4	
HFT 2500	Marketing of Hospitality Services	3	
HFT 2501	Hospitality and Tourism Sales	3	
HFT 2800	Food and Beverage Management	3	

Miami Dade College

Interior Design Technology
Associate in Science | Code: 26030 | 75 credits
CIP (1450040801**)**
Effective Term: Fall 2025 (2257)

The Interior Design Technology program is planned to develop ability in the design of interiors, to encourage originality and to foster talent in this field. It includes theoretical and technical aspects of interior design. The program is open to those who study for pleasure and those preparing for a career.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C Introduction to Computer Technology & Application			
MAJOR COURSE REQUIREMENTS (53.00 credits)			
ARC 1115	Architectural Communications 1	2	
ARC 1126C	Architectural Drawing 1	4	
ARC 2171	Computer Aided Drafting 1	4	Prerequisite: ARC 1126 or 2461
ARC 2461	Architectural Materials and Construction 1	4	Prerequisite: ARC 1126 or BCN 1251
IND 1020	Interior Design 1	4	Corequisite: ARC 1115

IND 1100	History of Interiors 1	3	
IND 1130	History of Interiors 2	3	
IND 1200	Interior Design 2	4	Prerequisite: IND 1020
IND 1300	Interior Design Presentations 1	2	Prerequisite: IND 1020; Corequisite: IND 1200
IND 2201	Design Principles for Kitchen & Bath	3	Prerequisites: ARC 2461, IND 1200, IND 1300
IND 2210	Interior Design 3	4	Prerequisite: IND 1200; Corequisite: IND 2330
IND 2220	Interior Design 4	4	Prerequisite: IND 2210
IND 2330	Interior Design Presentations 2	3	Prerequisite: IND 1300; Corequisite: IND 2210
IND 2430	Lighting Design	3	Prerequisite: IND 1200
IND 2500	Professional Practices	3	Prerequisite: Sophomore standing level or equivalent.
IND 2608	Sustainable Design	3	Prerequisites: ARC 1126, IND 1200, IND 1300; Corequisite: ARC 2461

MAJOR COURSE ELECTIVE (7.00 credits)

ARC*		
IND*		
CGS 1060C	Introduction to Computer Technology & Applications	4

Miami Dade College

Landscape and Horticulture Technology
Associate in Science | Code: 21005 | 60 credits
CIP (1101060502**)**
Effective Term: Fall 2025 (2257)

The purpose of this program is to prepare students for employment in horticulture and landscape industries. The students will learn about plant growth, nutrition and fertilization, plant classification and identification, propagation, pest control, pruning, maintenance and drainage. Students will also gain business management and job skills.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	Prerequisite: ENC 1101
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
MGF 1131	Mathematics in Context	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in state rule 6a-10.0315 (by course, placement score, or eligible exemption).
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
BSC 2010	Principles of Biology	3	Pre/corequisites: BSC 2010L, CHM 1045
CHM 1020	General Education Chemistry	3	
CHM 1045	General Chemistry and Qualitative Analysis	3	Prerequisite: CHM 1025 or a passing score on the CART exam, MAC 1105; Corequisite: CHM 1045L
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	

SOCIAL SCIENCE (3.00 credits)

AMH 2010	History of the US to 1877	3	
AMH 2020	Introductory Survey Since 1877	3	
POS 2041	American Government	3	

COMPUTER COMPETENCY

Test type(s) needed:
Computer Competency Test (CCT)
---OR---
CGS 1060C Introduction to Computer Technology & Applications

MAJOR COURSE REQUIREMENTS (27.00 credits)

Group A (24.00 credits)

HOS 1010	Horticulture 1	3	
HOS 1011	Horticulture 2	3	Prerequisite: HOS 1010
IPM 2112	Principles of Entomology	3	
IPM 2301	Pesticide Applications	3	
LDE 2310	Irrigation Design & Maintenance	3	
ORH 1251	Nursery Practices 1	3	Prerequisite: HOS 1010
ORH 2949	Landscape Technology Internship	3	
SBM 1000	Small Business Management 3		

---And---

Group B (3.00 credits)

ORH 1510	Landscape Plant Identification 1	3	
BOT 2150C	Native Plant Identification and Usage in South Florida	3	

MAJOR COURSE ELECTIVE (18.00 credits)

ACG 2021	Financial Accounting	3	Corequisite: ACG 2021L
ACG 2021L	Financial Accounting Lab	1	Corequisite: ACG 2021
ACG 2071	Managerial Accounting	3	Prerequisite: ACG 2001 and ACG 2011 or ACG 2021; Corequisite: ACG 2071L
ACG 2071L	Managerial Accounting Lab	1	Prerequisite: ACG 2001, ACG 2011 or, ACG 2021, ACG 2021L; Corequisite: ACG 2071
ARC 2171	Computer Aided Draft 1	4	Prerequisite: ARC 1126 or ARC 2461
BOT 1010	Introduction to Botany	3	Corequisite: BOT 1010L
BOT 1010L	Introduction to Botany Lab	1	Corequisite: BOT 1010
BOT 2150C	Native Plant Identification and Usage in South Florida	3	
BSC 1005	General Education Biology	3	
BSC 2010	Principles of Biology	3	Pre/corequisites: BSC 2010L, CHM 1045
BSC 2010L	Principles of Biology Lab	2	Corequisites: BSC 2010
BSC 2011	Principles of Biology 2	3	Prerequisites: BSC 2010, 2010L; Corequisite: BSC 2011L
BSC 2011L	Principles of Biology 2	2	Prerequisites: BSC 2010L; Corequisite: BSC 2011
CGS 1060C	Introduction to Computer Technology & Applications	4	
CHM 1020	General Education Chemistry 3		
CHM 1025	Introductory Chemistry	3	Prerequisite MAT 1033

NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.

CHM 1045	General Chemistry and Qualitative Analysis	3	Prerequisite: CHM 1025 or a passing score on the CART exam, MAC 1105; Corequisite: CHM 1045L
CHM 1045L	General Chemistry and Qualitative Analysis Lab	2	Prerequisite: CHM 1025 or a passing score on the CART exam, MAC 1105; Corequisite: CHM 1045
ECO 2013	Principles of Economics (Macro)	3	
ESC 1000	General Education Earth Science	3	
FIN 2000	Principles of Finance	3	
IPM 2635	Introduction to plant pathology	3	

LDE 2000	Planting Design 1	4	Prerequisite: ORH 1510
MAC*			
MAN 2021	Principles of Management	3	
MAR 1720	Introduction to E-Commerce	3	
MAT 1033	Intermediate Algebra	3	Prerequisites: MAT 0022C, or MAT 0028, Or MAT 0057 or by placement score, or eligible exemption.
MGF*			
MKA 1021	Fundamentals of Selling	3	
ORH 2932	Special Topics in Landscaping	1	
QMB 2100	Basic Business Statistics	3	Prerequisite: Acceptable score on the Algebra Placement test or equivalent.
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.

TRA 2010	Introduction to Transportation and Logistics	3	

Additional Information

-Students wanting to enroll in a Miami Dade College (MDC) Miguel B. Fernandez Family School of Global Business, Trade and Transportation Bachelor of Applied Science (BAS) degree, must see an advisor for appropriate course selection.

Miami Dade College

Marketing
Associate in Science | Code: 25047 | 60 credits
CIP (1252140101**)**
Effective Term: Fall 2025 (2257)

The Associate in Science (AS) in Marketing is designed mainly for students who intend to seek immediate employment in the fields of marketing, international business and trade, or real estate; also, for those desiring to work in a non-profit institution and those presently employed in marketing but seeking advancement. The Associate in Arts degree is also available to the student planning to transfer to a senior institution after graduating from Miami Dade College. Consult an advisor about additional courses for such plans.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Astronomy	3	
BSC 1005	General Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY REQUIREMENT			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C	Introduction to Computer Technology & Applications		
MAJOR COURSE REQUIREMENTS (11.00 credits)			
ACG 2011	Principles of Accounting 2	3	Corequisite: ACG 2011L
ACG 2011L	Principles of Accounting 2 Lab	1	Corequisite: ACG 2011
---OR---			
ACG 2021	Financial Accounting	3	Corequisite: ACG 2021L
ACG 2021L	Financial Accounting Lab	1	Corequisite: ACG 2021

---AND---

ACG 2071	Managerial Accounting	3	Prerequisite: ACG 2011 and ACG 2001 or ACG 2021; Corequisite: ACG 2071L
ACG 2071L	Managerial Accounting Lab	1	Prerequisite: ACG 2001, ACG 2011, ACG 2021, ACG 2021L; Corequisite: ACG 2071
ECO 2023	Principles of Economics (Micro)	3	

PROGRAM CORE REQUIREMENTS (18.00 credits)
(Students must select one track)

TRACK 1 – DIGITAL MARKETING (18.00 Credits)

MAR 1011	Principles of Marketing	3
MAR 1720	Marketing in a Digital World 3	
MAR 2101	Social Media Marketing	3
MAR 2703	Marketing Content, Branding and Strategy	3
MAR 2704	Marketing Web Analytics	3
MAR 2952	Digital Marketing Capstone	3

---OR---

TRACK 2 – SALES AND CUSTOMER SERVICE (18.00 Credits)

MAR 1440	Fundamentals of Negotiations	3	
MAR 1502	Sales and Consumer Behavior	3	
MAR 2419	Technology in Sales	3	Prerequisite: MKA 1160
MKA 1022	Relationship Selling	3	
MKA 1160	Customer Relationship Management	3	
MKA 2024	Organizational Sales Management	3	

---OR---

TRACK 3 – MARKETING (18.00 Credits)

MAR* MKA*

NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.

OST 2335	Business Writing	3

ELECTIVES (16.00 Credits)

ACG*	CGS*	FIN*	MAR*	OST*	TRA*
BAN*	CIS*	GEB*	MKA*	PUR*	
BRC*	COP*	LIS*	MNA*	QMB*	
BUL*	ECO*	MAN*	MTB*	REE*	

NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.

ENC 1102	English Composition 2	3	Prerequisite: ENC 1101
MAC 2233	Business Calculus	3	Prerequisite: MAC 1105 or MAC1106
STA 2023	Statistical Methods	3	Prerequisite: MAT 103 or MGF 1131

NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.

Miami Dade College

Music Business - Business Management
Associate in Science | Code: 25019 | 64 credits
CIP (1650091300**)**
Effective Term: Fall 2025 (2257)

The A.S. in Music Business with a Business Management concentration is designed for students pursuing careers in the music or entertainment industries. The program coursework combines general business skills with business knowledge and business practices specific to the music industry. Students completing the program will demonstrate the skills and knowledge used by music industry professionals to guide artists in the areas of management, touring, music publishing, licensing, law, marketing, and entrepreneurship.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	Prerequisite: ENC1101
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science 3		
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY REQUIREMENT			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C Introduction to Computer Technology & Applications			
requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).			
MAJOR COURSE REQUIREMENTS (28.00 credits)			
CTS 1800	Introduction to Web Page Development	4	Prerequisite: CGS 1060C
GEB 1011	Principles of Business	3	

MAR 1011	Principles of Marketing	3	
MUM 1949	Co-op Work Experience 1: MUM	3	Departmental Approval
MUM 2700	Music Business 1	3	Corequisite: MUM 2703
MUM 2702	Music Business 2-Careers	3	Corequisite: MUM 2704
MUM 2703	Music Business 3-Computer	3	
MUM 2704	Music Business 4-Computer Applications	3	Prerequisite: MUM 2703
SBM 1000	Small Business Management	3	

PROGRAM CONCENTRATION CORE (14.00 credits)

ACG 2021	Financial Accounting	3	Corequisite: ACG 2021L
ACG 2021L	Financial Accounting Lab	1	Corequisite: ACG 2021
BUL 2241	Business Law 1	3	
GEB 2350	Introduction to International Business	3	
MVK 1111	Class Piano 1	1	
SPC 1017	Introduction to Communication	3	

MAJOR COURSE ELECTIVE (7.00 credits)

MUN*, MVB*, MVJ*, MVK*, MVO*, MVP*, MVS*, MVV*, MVW*

BUL 2242	Business Law 2	3	Prerequisite: BUL 2241
CGS 1060C	Introduction to Computer Technology & Applications	4	
MAN 2021	Principles of Management	3	
MKA 1021	Fundamentals of Selling	3	
MKA 1511	Principles of Advertising and Copywriting	3	
MUC 2601	Introduction to Songwriting	3	
MUH 2111	Survey of Music History 1	3	
MUH 2112	Survey of Music History 2	3	Prerequisite: MUH 2111
MUL 2380	Jazz and Popular Music in America	3	
MUM 2600	Sound Recording 1	3	Corequisite: MUM 2600L
MUM 2600L	Sound Recording 1 Lab	1	Corequisite: MUM 2600
MUM 2601	Sound Recording 2	3	Prerequisite: MUM 2600
MUM 2601L	Sound Recording 2 Lab	1	Corequisite: MUM 2601
MUM 2604	Multi-Track Mixdown Techniques	1	Prerequisite: MUM 2600
MUM 2605	Multi-Track Production Techniques 1	1	Prerequisites: MUM 2600, MUM 2600L
MUM 2623C	MIDI Electronic Music 1	2-3	
MUM 2624C	MIDI-Electronic Music 2	2-3	Prerequisite: MUM 2623C
MUT 1112	Theory 2	3	Corequisite: MUT 1242
MUT 1242	Sight Singing & Ear Training 2	1-2	Prerequisite: MUT 1241; Corequisites: MUT 1111, MUT 1112
MUT 2238	Introduction to Jazz Keyboard Harmony	1	Corequisite: MUT 2351
MUT 2351	Introduction to Popular Music Arranging	3	Corequisite: MUT 2238
MUT 2641	Introduction to Jazz Improvisation 1	3	Corequisite: MUT 2351
PUR 2003	Public Relations	3	
RTV 1241C	Television Production 1	4	
TAX 2010	Business Taxes & Returns	3	

Miami Dade College

Music Business - Creative Performance
Associate in Science | Code: 25043 | 64 credits
CIP (1650091300**)**
Effective Term: Fall 2025 (2257)

The AS in Music Business with a Creative Performance concentration has a structured program for students who have a strong interest in performing, composing, or arranging music, and want to develop a diverse set of skills and knowledge related to the music business/entertainment industries. Students choosing this option study business, music business, music theory and music performance. This program is for students who want to manage their careers as performers.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (bycourse, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY REQUIREMENT			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C	Introduction to Computer Technology & Applications		
requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).			
MAJOR COURSE REQUIREMENTS (28.00 credits)			
CTS 1800	Introduction to Web Page Development	4	
GEB 1011	Principles of Business	3	

MAR 1011	Principles of Marketing	3	
MUM 1949	Co-op Work Experience 1: MUM	3	Departmental Approval
MUM 2700	Music Business 1	3	Corequisite: MUM 2703
MUM 2702	Music Business 2-Careers	3	Corequisite: MUM 2704
MUM 2703	Music Business 3-Computer	3	
MUM 2704	Music Business 4-Computer Applications	3	Prerequisite: MUM 2703
SBM 1000	Small Business Management	3	

PROGRAM CONCENTRATION CORE (17.00 credits)
Choose **3 credits** from the following applied instrument options:
MVB*, MVJ*, MVK*, MVO*, MVP*, MVS*, MVV*, MVW*

--AND--
Choose **14 credits** from the following options:
MUM*
MUN*

MUC 2601	Introduction to Songwriting	3	
MUT 1111	Theory 1	3	Corequisite: MUT1241
MUT 1112	Theory 2	3	Corequisite: MUT 1242
MUT 1241	Sightsinging & Ear Training 1 Year	1-2	Corequisite: MUT 1111
MUT 1242	Sightsinging & Ear Training 2 Year	1-2	Prerequisite: MUT 1241; Corequisites: MUT 1111, MUT 1112
MVK 1111	Class Piano 1	1	
MVK 1112	Class Piano 2	1	Prerequisite: MVK 1111 or Placement by Exam
MUM 2623C	MIDI Electronic Music 1	2-3	

MAJOR COURSE ELECTIVE (4.00 credits)
MUN*, MVB*, MVJ*, MVK*, MVO*, MVP*, MVS*, MVV*, MVW*

ACG 2021	Financial Accounting	3	Corequisite: ACG 2021L
ACG 2021L	Financial Accounting Lab	1	Corequisite: ACG 2021
BUL 2241	Business Law 1	3	
BUL 2242	Business Law 2	3	Prerequisite: BUL 2241
CGS 1060C	Introduction to Computer Technology & Applications	4	
GEB 2350	Introduction to International Business	3	
MAN 2021	Principles of Management	3	
MKA 1021	Fundamentals of Selling	3	
MKA 1511	Principles of Advertising and Copywriting	3	
MUC 2601	Introduction to Songwriting	3	
MUH 2111	Survey of Music History 1	3	
MUH 2112	Survey of Music History 2	3	Prerequisite: MUH 2111
MUL 2380	Jazz and Popular Music in America	3	
MUM 2600	Sound Recording 1	3	Corequisite: MUM 2600L
MUM 2600L	Sound Recording 1 Lab	1	Corequisite: MUM 2600
MUM 2601	Sound Recording 2	3	Prerequisite: MUM 2600
MUM 2601L	Sound Recording 2 Lab	1	Corequisite: MUM 2601
MUM 2604	Multi-Track Mixdown Techniques	1	Prerequisite: MUM 2600
MUM 2605	Multi-Track Production Techniques 1	1	Prerequisites: MUM 2600, MUM 2600L
MUM 2623C	MIDI Electronic Music 1	2-3	
MUM 2624C	MIDI-Electronic Music 2	2-3	Prerequisite: MUM 2623C
MUT 1112	Theory 2	3	Corequisite: MUT 1242
MUT 1242	Sight Singing & Ear Training 2	1-2	Prerequisite: MUT 1241; Corequisites: MUT 1111, 1112
MUT 2238	Introduction to Jazz Keyboard Harmony	1	Corequisite: MUT 2351
MUT 2351	Introduction to Popular Music Arranging	3	Corequisite: MUT 2238
MUT 2641	Introduction to Jazz Improvisation 1	3	Corequisite: MUT 2351
PUR 2003	Public Relations	3	
RTV 1241C	Television Production 1	4	
SPC 1017	Introduction to Communication	3	
TAX 2010	Business Taxes & Returns	3	

Miami Dade College

Music Business - Creative Production
Associate in Science | Code: 25044 | 64 credits
CIP (1650091300**)**
Effective Term: Fall 2025 (2257)

The A.S. in Music Business with a Creative Production concentration is designed for students pursuing careers in the music or entertainment industries. The program coursework combines general business skills with business knowledge and practices specific to the music industry. Coursework additionally contributes to the integral development of creative and technical skills in professional sound recording, mixing, and electronic music creation. Graduates will be able to demonstrate the skills and knowledge used by music industry professionals to guide artists in the areas of management, touring, music publishing, licensing, law, marketing, and entrepreneurship.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writingrequirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	

COMPUTER COMPETENCY REQUIREMENT
Test type(s) needed:
Computer Competency Test (CCT)
---Or---
CGS 1060C Introduction to Computer Technology & Applications
requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).

MAJOR COURSE REQUIREMENTS (28.00 credits)

CTS 1800	Introduction to Web Page Development	4	
GEB 1011	Principles of Business	3	
MAR 1011	Principles of Marketing	3	
MUM 1949	Co-op Work Experience 1: MUM	3	Departmental Approval
MUM 2700	Music Business 1	3	Corequisite: MUM 2703
MUM 2702	Music Business 2-Careers	3	Corequisite: MUM 2704
MUM 2703	Music Business 3-Computer	3	
MUM 2704	Music Business 4-Computer Applications	3	Prerequisite: MUM 2703
SBM 1000	Small Business Management	3	

PROGRAM CONCENTRATION CORE (14.00 credits)

MUN*			
MUM 2600	Sound Recording 1	3	Corequisite: MUM 2600L
MUM 2600L	Sound Recording 1 Lab	1	Corequisite: MUM 2600
MUM 2623C	MIDI Electronic Music 1	2-3	
MUT 1111	Theory 1	3	Corequisite: MUT 1241
MUT 1241	Sightsinging & Ear Training 1 Year	1-2	Corequisite: MUT 1111
MVK 1111	Class Piano 1	1	
MVK 1112	Class Piano 2	1	Prerequisite: MVK 1111 or Placement by Exam

MAJOR COURSE ELECTIVE (7.00 credits)

MUN*, MVB*, MVJ*, MVK*, MVO*, MVP*, MVS*, MVV*, MVW*			
BUL 2241	Business Law 1	3	
BUL 2242	Business Law 2	3	Prerequisite: BUL 2241
CGS 1060C	Introduction to Computer Technology & Applications	4	
MAN 2021	Principles of Management	3	
MKA 1021	Fundamentals of Selling	3	
MKA 1511	Principles of Advertising and Copywriting	3	
MUC 2601	Introduction to Songwriting	3	
MUH 2111	Survey of Music History 1	3	
MUH 2112	Survey of Music History 2	3	Prerequisite: MUH 2111
MUL 2380	Jazz and Popular Music in America	3	
MUM 2600	Sound Recording 1	3	Corequisite: MUM 2600L
MUM 2600L	Sound Recording 1 Lab	1	Corequisite: MUM 2600
MUM 2601	Sound Recording 2	3	Prerequisite: MUM 2600
MUM 2601L	Sound Recording 2 Lab	1	Corequisite: MUM 2601
MUM 2604	Multi-Track Mixdown Techniques	1	Prerequisite: MUM 2600
MUM 2605	Multi-Track Production Techniques 1	1	Prerequisites: MUM 2600, MUM 2600L
MUM 2623C	MIDI Electronic Music 1	2-3	
MUM 2624C	MIDI-Electronic Music 2	2-3	Prerequisite: MUM 2623C
MUT 1112	Theory 2	3	Corequisite: MUT 1242
MUT 1242	Sight Singing & Ear Training 2	1-2	Prerequisite: MUT 1241;Corequisites: MUT 1111, MUT 1112
MUT 2238	Introduction to Jazz Keyboard Harmony	1	Corequisite: MUT 2351
MUT 2351	Introduction to Popular Music Arranging	3	Corequisite: MUT 2238
MUT 2641	Introduction to Jazz Improvisation 1	3	Corequisite: MUT 2351
PUR 2003	Public Relations	3	
RTV 1241C	Television Production 1	4	
SPC 1017	Introduction to Communication	3	
TAX 2010	Business Taxes & Returns	3	

Miami Dade College

Networking Services Technology – Enterprise Cloud Computing
Associate in Science | Code: 25077 | 60 credits
CIP (1511100112**)**
Effective Term: Fall 2025 (2257)

The Enterprise Cloud Computing program is designed to provide an opportunity to establish foundation in architect scalable, highly available application solutions that leverage cloud computing services. Utilizing best practices focusing on cloud security, cost, and reliability.
Graduates of the track in Enterprise Cloud Computing will utilize core design patterns and infrastructure expertise to implement solutions to deploy and maintain workloads and applications. Graduates are prepared for positions as entry-level Solutions Architect, Cloud Architect, Cloud Engineer and Cloud Application Architect.
NOTE: There is only one A.S. program in Networking Services Technology with three (3) track specializations— Network Infrastructure, Network Security, and Enterprise Cloud Computing. Students may select from one of the three options, but the A.S. in Networking Services Technology will be awarded to the student only once.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C	Introduction to Computer Technology & Application		

MAJOR COURSE REQUIREMENTS (16.00 Credits)

CGS 1060C	Intro to Computer Technology and Applications	4	
CTS 1120	Cybersecurity Fundamentals	4	Recommended preparation: prior knowledge of Networking Technologies
CTS 1134	Networking Technologies	4	
CTS 2303	Windows Server Administration	4	Recommended preparation: CGS 1060C and CTS 1134

PROGRAM CONCENTRATION CORE (24.00 Credits)

CTS 1111	Linux +	4	
CGS 1540C	Database Concepts and Design	4	
CTS 1145	Cloud Essentials	4	
CTS 2192C	Microsoft Azure Administration	4	Recommended preparation: CTS 1145 or equivalent knowledge in Microsoft Azure Fundamentals
CTS 2375C	Cloud Infrastructure and Services	4	Prerequisites: CTS 1145; Corequisite: CTS 2960
CTS 2960	Cloud Computing Capstone	4	Departmental approval required

PROGRAM COURSE ELECTIVE (5.00 Credits)

CGS*; CIS*; COP*; CTS*

CIS 1949	Co-op Work Experience 1: CIS	1-4	
CIS 2900	Directed Information Technology Study	1-4	
COP 1047C	Introduction to Python Programming	4	
CTS 2143C	Server Administration	4	Recommended preparation: server operating systems experience

***ANY COURSE WITH THE LISTED PREFIXES SATISFIES THIS REQUIREMENT.**

Miami Dade College

Networking Services Technology – Network Infrastructure
Associate in Science | Code: 25062 | 60 credits
CIP (1511100112)
Effective Term: Fall 2025 (2257)

The Networking Services Technology program provides an opportunity to establish a foundation in the field of network design and administration for employment in commercial, industrial and government institutions. The Network Infrastructure concentration offers the training needed to connect and secure multiple computing systems and software platforms. Students are additionally eligible to sit for the Cisco Certified Networking Associate (CCNA) certification exam. Graduates are prepared for positions as information technology specialists, help desk specialists, network specialists, entry level security specialists and network systems analysts.
NOTE: There is only one A.S. program in Networking Services Technology with three (3) track specializations—Network Infrastructure, Network Security, and Enterprise Cloud Computing. Students may select from one of the three options, but the A.S. in Networking Services Technology will be awarded to the student only once.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C	Introduction to Computer Technology & Application		

MAJOR COURSE REQUIREMENTS (16.00 Credits)

CGS 1060C	Intro to Computer Technology and Applications	4	
CTS 1120	Cybersecurity Fundamentals	4	Recommended preparation: prior knowledge of Networking Technologies
CTS 1134	Networking Technologies	4	
CTS 2303	Windows Server Administration	4	Recommended preparation: CGS 1060C and CTS 1134

PROGRAM CONCENTRATION CORE (24.00 Credits)

CTS 1111	Linux +	4	
CTS 1650	CCNA 1: Cisco Fundamentals	4	
CTS 1651	CCNA 2: Routing and Switching	4	Corequisite: CTS 1650
CTS 2143C	Server Administration	4	Recommended preparation: server operating systems experience
CTS 2192C	Microsoft Azure Administration	4	Recommended preparation: CTS 1145 or equivalent knowledge in Microsoft Azure Fundamentals
CTS 2652	CCNA 3: Advanced Routing and Switching	4	Prerequisite: CTS 1651

PROGRAM COURSE ELECTIVE (5.00 Credits)

CGS*; CIS*; COP*; CTS*

*** ANY COURSE WITH THE LISTED PREFIXES SATISFIES THIS REQUIREMENT.**

CGS 1560	A+ Computer Operating Systems	4	
CIS 2900	Directed Information Technology Study	1-4	
CTS 1145	Cloud Essentials	4	
CTS 1328	Supporting Microsoft Clients	4	Prerequisite: CGS 1060C
CTS 1437	Microsoft SQL Administration	4	Recommended preparation: CGS 1540
CTS 2153	Supporting Windows Users & Applications	4	Prerequisite: CTS 1328

Miami Dade College

Nuclear Medicine Technology
Associate in Science | Code: 23068 | 75 credits
CIP (1351090502**)**
Effective Term: Fall 2025 (2257)

The A.S. degree is designed for students who are looking for immediate entry into a career upon graduation. Most discipline courses directly relate to the identified career area. The remaining courses are comprised of general education courses. Students begin the discipline courses of the Nuclear Medicine Technology program in Fall term of each year. A total of 75 credits must be completed for this degree.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
BSC 2085	Human Anatomy and Physiology 1	3	Corequisite: BSC 2085L
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C	Introduction to Computer Technology & Applications		
SCIENCE REQUIREMENTS (12.00 Credits)			
BSC 2085L	Human Anatomy and Physiology 1 Laboratory	1	Corequisite: BSC 2085
BSC 2086	Human Anatomy & Physiology 2	3	Prerequisite: BSC 2085; Corequisite: BSC 2086L
BSC 2086L	Human Anatomy & Physiology 2 Laboratory	1	Prerequisite: BSC 2085, BSC 2085L; Corequisite: BSC 2086
PHY 1004	Physics with Applications	3	Prerequisite: MAT 1033; Corequisite: PHY 1004L
CHM 1033	Chemistry for Health Sciences	3	Prerequisite: MAT 1033; Corequisite: CHM 1033L
CHM 1033L	Chemistry for Health Sciences	1	Prerequisite: MAT 1033; Corequisite: CHM 1033L
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			

ELECTIVE REQUIREMENT (3.00 Credits)
Electives any appropriate transferrable (Credit Type 1 or 2) courses (Check with Advisor).

MAJOR CORE REQUIREMENTS (45.00 Credits)

NMT 1002L	Introduction to Nuclear Medicine Lab	2	Prerequisites: CHM1033, CHM 1033L Corequisites: NMT 1312C, NMT 2613
NMT 1312C	Nuclear Medicine Physics and Math Applications	2	Corequisites: NMT 1002L, NMT 2613
NMT 1705C	Introduction to Nuclear Medicine Pre-clinical	2	Prerequisites: BSC 2085, BSC 2085L, BSC 2086, BSC 2086L, CHM 1033, CHM 1033L; Corequisites: NMT 1002L, NMT 1312C, NMT 2613
NMT 1713C	Methodology 1	2	Prerequisites: BSC 2085, BSC 2085L, BSC 2086, BSC 2086L, CHM 1033, CHM 1033L; Corequisites: NMT 2130C, NMT 2534C, NMT 2804C
NMT 2102	Nuclear Medicine Administration	1	Prerequisites: NMT 2130C, NMT 2534C; Corequisites: NMT 2723C, NMT 2814C
NMT 2130C	Nuclear Medicine Radiopharmacy	3	Prerequisites: NMT 1002L, NMT 1312, NMT 2613; Corequisites: NMT 1713C, NMT 2534C, NMT 2804C
NMT 2534C	Instrumentation, Quality Control, And Quality Assurance	3	Prerequisites: NMT 1002L, NMT 1312, 1312, NMT 2613, and PHY 1004; Corequisites: NMT 1713C, NMT 2130C, NMT 2804C
NMT 2613	Radiology Positioning 1 Lab	3	Prerequisites: MAC 1105, PHY 1004, Corequisites: NMT 1002L, NMT 1312
NMT 2723C	Methodology 2	2	Prerequisites: NMT 1713C, NMT 2804C; Corequisites: NMT 2814C
NMT 2733C	Methodology 3	2	Prerequisites: BSC 2085, BSC 2085L, BSC 2086, BSC 2086L, NMT 1713C, NMT 2723C; Corequisites: NMT 2779C, NMT 2824C
NMT 2779C	Multi-Modalities and Cross-Sectional Anatomy	2	Prerequisites: NMT 2130C, NMT 2723C,NMT 2814C; Corequisites: NMT 2733C, NMT 2824C
NMT 2804C	Nuclear Medicine Clinical Education 1	3	Prerequisites: NMT 1002L, NMT 1312C, NMT 1713C
NMT 2814C	Nuclear Medicine Clinical Education 2	5	Prerequisites: NMT 2130C, NMT 2534C, NMT 2613, NMT 2804C
NMT 2824C	Nuclear Medicine Clinical Education 3	5	Prerequisite: NMT 2814C
NMT 2834C	Nuclear Medicine Clinical Education 4	5	
NMT 2932C	Nuclear Medicine Seminar	3	Prerequisites: NMT 1312C, NMT 2534C, NMT 2613; Corequisite: NMT 2824C

Miami Dade College

Nursing - R.N. (Accelerated)
Associate in Science | Code: 23031 | 72 credits
CIP (1351380100**)**
Effective Term: Fall 2025 (2257)

The Accelerated Generic Nursing Option is designed to prepare students without previous health care education that hold a baccalaureate degree for careers as Registered Nurses. The program is accredited by the Accreditation Commission for Education in Nursing (ACEN), 3343 Peachtree Rd. N.E., Suite 850, Atlanta, Ga., 30326, 404-975-5000, acenursing.org and approved by the Florida Board of Nursing (FBON). Graduates are eligible to apply to write the National Council Licensing Examination for Registered Nurses (NCLEX-RN). Selection is based on scores on pre-admission testing and completion of required prerequisite courses. See the School of Nursing Information website for more specific details about admission requirements. Pre-Admission tests – Applicants must take the ATI Test of Adult Basic Education (TEASE).

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
PHI 2010 Introduction to Philosophy		3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
BSC 2085	Human Anatomy and Physiology 1	3	Corequisite: BSC 2085L
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C Introduction to Computer Technology & Applications			
SCIENCE REQUIREMENTS (12.00 Credits)			
BSC 2085L	Human Anatomy and Physiology 1	1	Corequisite: BSC 2085
BSC 2086	Human Anatomy and Physiology 2	3	Prerequisites: BSC 2085, BSC 2085L; Corequisite: BSC 2086L
BSC 2086L	Human Anatomy and Physiology Lab 2	1	Prerequisites: BSC 2085, BSC 2085L; Corequisite: BSC 2086
CHM 1033	Chemistry for Health Sciences	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
CHM 1033L	Chemistry for Health Sciences Lab	1	Prerequisites: MAT 1033; Corequisite: CHM 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
MCB 2010	Microbiology	3	Prerequisites: BSC 2085, BSC 2085L and CHM 1033

ELECTIVES (3.00 Credits)

SPC 2608	Introduction to Public Speaking	3	Prerequisite(s): Placement by Scholastic Assessment Test (SAT) verbal subtest score; American College Testing (ACT) English subtest score; Computerized Placement Test (CPT) English subtest score; or ENC 0025 with a grade of S.

DISCIPLINE COURSES FIRST SEMESTER (18.00 Credits)
(Offered Fall & Spring)

NUR 1025	Fundamentals of Nursing	3	Prerequisite: Program Admission; Corequisites: NUR 1025C, NUR 1025L, NUR 1060C, NUR 1141
NUR 1025C	Fundamentals of Nursing Skills Lab	1	Prerequisite: Program Admission; Corequisites: NUR 1025, NUR 1025L, NUR 1060C, NUR 1141
NUR 1025L	Fundamentals of Nursing Clinical Lab	2	Prerequisite: Program Admission; Corequisites: NUR 1025, NUR 1025C, NUR 1060C, NUR 1141
NUR 1060C	Adult Health Assessment	3	Prerequisite: Program Admission; Corequisites: NUR 1025, NUR 1025C, NUR 1025L, NUR 1141
NUR 1141	Nursing Math and Pharmacology	3	Corequisites: NUR 1025, NUR 1025C, NUR 1025L, NUR 1060C
NUR1211	Medical-SurgicalNursing	3	Prerequisites: NUR1025, NUR1025C, NUR1060C, NUR 1141; Corequisites: NUR 1211L, NUR 1214C
NUR 1211L	Medical Surgical Nursing Clinical Lab	2	Prerequisites: NUR 1025, NUR 1025C, NUR 1025L, NUR 1060C, NUR 1141; Corequisites: NUR 1211, NUR 1214C
NUR 1214C	Medical Surgical Nursing Skills lab	1	Prerequisites: NUR 1025, NUR 1025C, NUR 1025L, NUR 1060C, NUR 1141; Corequisites: NUR 1211, NUR 1211L

DISCIPLINE COURSES SECOND SEMESTER (11.00 Credits)

NUR 2220	Medical Surgical Nursing II	3	Prerequisites: NUR 1025, NUR 1025C, NUR 1025L, NUR 1060C, NUR 1141, NUR 1211, NUR 1211L, NUR 1214C; Corequisite: NUR 220L
NUR 2220L	Medical Surgical Nursing II Clinical	1	Prerequisites: NUR 1025, NUR 1025C, NUR 1025L, NUR 1060C, NUR 1141, NUR 1211, NUR 1211L, NUR 1214C; Corequisite: NUR 2220
NUR 2310	Pediatric Nursing	2	Prerequisites: NUR 1025, NUR 1025C, NUR 1025L, NUR 1060C, NUR 1141, NUR 1211, NUR 1211L, NUR 1214C; Corequisites: NUR 2310L
NUR 2310L	Pediatric Nursing Clinical Lab	1	Prerequisites: NUR 1025, NUR 1025C, NUR 1025L, NUR 1060C, NUR 1141, NUR 1211, NUR 1211L, NUR 1214C; Corequisites: NUR 2310
NUR 2420	Obstetrical Nursing	2	Prerequisites: NUR 1025, NUR 1025C, NUR 1025L, NUR 1060C, NUR 1141, NUR 1211, NUR 1211L, NUR 1214C; Corequisites: NUR 2420L
NUR 2420L	Obstetrical Nursing Lab	1	Prerequisites: NUR 1025, NUR 1025C, NUR 1025L,NUR 1060C, NUR 1141, NUR 1211, NUR 1211L, NUR 1214C; Corequisites: NUR 2420

NUR 2680L	Community Health Nursing Lab	1	Prerequisites: NUR 1025, NUR 1025C, NUR 1025L, NUR 1141

DISCIPLINE COURSES THIRD SEMESTER (13.00 Credits)

NUR 2212	Medical-Surgical Nursing III	3	Prerequisites: NUR 2220, NUR 2220L, NUR 2310, NUR 2310L, NUR 2420, NUR 2420L, NUR 2520, NUR 2520L, NUR 2680L; Corequisite: NUR 2212L
NUR 2212L	Medical-Surgical Nursing III Clinical	2	Prerequisites: NUR 2220, NUR 2220L, NUR 2310, NUR 2310L, NUR 2420, NUR 2420L, NUR 2520, NUR 2520L, NUR 2680L; Corequisite: NUR 2212
NUR 2520	Psychiatric Nursing	2	Prerequisites: NUR 1025, NUR 1025C, NUR 1025L, NUR 1060C, NUR 1141; Corequisites: NUR 2520L
NUR 2520L	Psychiatric Nursing Clinical Lab	1	Prerequisites: NUR 1025, NUR 1025C, NUR 1025L, NUR 1060C, NUR 1141; Corequisites: NUR 2520
NUR 2811C	Professional Nursing Leadership	4	Prerequisites: NUR 2212, NUR 2212L,
NUR 2960	Senior Seminar	1	Corequisite: NUR 2811C

Additional Information:
In order to complete 18 credits in the Mathematics/Science area, select additional credits with any prefix in the areas of natural science/mathematics that do not include courses used to meet the 18 credits general education requirements. Completion of the required sciences satisfies the general education science requirement. Credits used in this area may not be used to satisfy another area.

Students must have 12 credits in natural science/math, including all content contained in both Human Anatomy and Physiology courses and their corresponding labs.

Computer Competency (Waived with a Associates of Art degree or higher from an accredited institution)
By the 16th earned college level credit (excluding EAP and college preparatory courses), a student must take the Computer Competency Test and pass
or
By the 31st earned college level credit (excluding EAP and college preparatory courses), a student must pass CGS 1060, an equivalent continuing education or vocational credit course or retest with a passing score on the Computer Competency Test.

Due to the limited number of students that can progress to discipline courses in the School of Nursing Associate Degree Programs, it is important that students be properly informed. For information, advisement, application forms and deadline dates, interested students should contact the New Student Center, Medical Center Campus.

Students with 2 or more grades of "D", "F", or "W" in required science courses are not eligible to progress into the Associate Degree Nursing program discipline courses. Students are also required to have no more than (2) enrollments (D, F, W) for any individual science course for the program.

Minimum GPA of 2.0 is required.

Licensing requirement for the Florida Board of Nursing must be met please review at https://floridasnursing.gov/licensing/licensed-practical-nurse-registered-nurse-by-examination/.

Students should check their academic requirement report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami-Dade. This outline includes current graduation requirements.

The final responsibility for meeting graduation requirements stated in your academic requirement report rests with you.

Miami Dade College

Nursing - R.N. (Generic Full-Time)
Associate in Science | Code: 23028 | 72 credits
CIP (1351380100**)**
Effective Term: Fall 2025 (2257)

The Generic Nursing Option is designed to prepare students without previous health care education for careers as Registered Nurses. The program is accredited by the Accreditation Commission for Education in Nursing (ACEN), 3343 Peachtree Rd. N.E., Suite 850, Atlanta, Ga., 30326, 404-975-5000, acenursing.org and approved by the Florida Board of Nursing (FBON). Graduates are eligible to apply to write the National Council Licensing Examination for Registered Nurses (NCLEX-RN). Selection is based on scores on pre-admission testing and completion of required prerequisite courses. See the School of Nursing Information website for more specific details about admission requirements. Pre-Admission tests – Applicants must take the ATI Test of Adult Basic Education (TEAS). Selection is based on cumulative grade point average (GPA) and completion of required program courses. See the School of Nursing program requirements for specific details.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
PHI 2010	Introduction to Philosophy	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
Note: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
BSC 2085	Human Anatomy and Physiology 1	3	Corequisite: BSC 2085L
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C	Introduction to Computer Technology & Applications		
SCIENCE REQUIREMENTS (12.00 Credits)			
BSC 2085L	Human Anatomy and Physiology 1	1	Corequisite: BSC 2085
BSC 2086	Human Anatomy and Physiology 2	3	Prerequisites: BSC 2085, BSC 2085L; Corequisite: BSC 2086L
BSC 2086L	Human Anatomy and Physiology Lab 2	1	Prerequisites: BSC 2085, BSC 2085L; Corequisite: BSC 2086
CHM 1033	Chemistry for Health Sciences	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
CHM 1033L	Chemistry for Health Sciences Lab	1	Prerequisites: MAT 1033; Corequisite: CHM 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
MCB 2010	Microbiology	3	Prerequisites: BSC 2085, BSC 2085L and CHM 1033

ELECTIVES (3.00 Credits)

SPC 2608	Introduction to Public Speaking	3	Prerequisite(s): Placement by Scholastic Assessment Test (SAT) verbal subtest score; American College Testing (ACT) English subtest score; Computerized Placement Test (CPT) English subtest score; or ENC 0025 with a grade of S.

DISCIPLINE COURSES FIRST SEMESTER (12.00 Credits)
(Offered Fall & Spring)

NUR 1025	Fundamentals of Nursing Skills Lab	3	Prerequisite: Program admission; Corequisites: NUR 1025C, NUR 1025L, NUR 1060C, NUR 1141
NUR 1025C	Fundamentals of Nursing Skills Lab	1	Prerequisite: Program admission; Corequisites: NUR 1025, NUR 1025L, NUR 1060C, NUR 1141
NUR 1025L	Fundamental of Nursing Clinical Lab	2	Prerequisite: Program admission; Corequisites: NUR 1025, NUR 1025C, NUR 1060C, NUR 1141
NUR 1060C	Adult Health Assessment	3	Prerequisite: Program admission; Corequisites: NUR 1025, NUR 1025C, NUR 1025L, NUR 1141
NUR 1141	Nursing Math & Pharmacology	3	Prerequisite: Program admission; Corequisites: NUR 1025, NUR 1025C, NUR 1025L, NUR 1060C

DISCIPLINE COURSES SECOND SEMESTER (12.00 Credits)
(Offered Spring and Summer)

NUR 1211	Medical Surgical Nursing	3	Prerequisites: NUR 1025, NUR 1025C,NUR 1025L, NUR 1060C, NUR 1141; Corequisites: NUR 1211L, NUR 1214C
NUR 1211L	Medical Surgical Nursing Clinical Lab	2	Prerequisites: NUR 1025, NUR 1025C,NUR 1025L, NUR 1060C, NUR 1141; Corequisites: NUR 1211, NUR 1214C
NUR 1214C	Medical Surgical Nursing Skills Lab	1	Prerequisites: NUR 1025, NUR 1025C, NUR 1025L, NUR 1060C, NUR 1141; Corequisites: NUR 1211, NUR 1211L
NUR 2310	Pediatric Nursing	2	Prerequisites: NUR 1025, NUR 1025C, NUR 1025L, NUR 1060C, NUR 1141; Corequisites: NUR 2310L
NUR 2310L	Pediatric Nursing Clinical Lab	1	Prerequisites: NUR 1025, NUR 1025C, NUR 1025L, NUR 1060C, NUR 1141; Corequisites: NUR 2310
NUR 2420	Obstetrical Nursing	2	Prerequisites: NUR 1025, NUR 1025C, NUR 1025L, NUR 1060C, NUR 1141; Corequisites: NUR 2420L
NUR 2420L	Obstetrical Nursing Clinical Lab	1	Prerequisites: NUR 1025, NUR 1025C, NUR 1025L, NUR 1060C, NUR 1141; Corequisites: NUR 2420

DISCIPLINE COURSES THIRD SEMESTER (8.00 Credits)
(Offered Fall & Spring)

NUR 2220	Medical Surgical Nursing II	3	Prerequisites: NUR 1025, NUR 1025C, NUR 1025L, NUR 1060C, NUR 1141, NUR 1211, NUR 1211L, NUR 1214C; Corequisite: NUR 2220L

NUR 2220L	Medical Surgical Nursing II Clinical	1	Prerequisites: NUR 1025, NUR 1025C, NUR 1025L, NUR 1060C, NUR 1141, NUR 1211, NUR 1211L, NUR 1214C; Corequisite: NUR 2220
NUR 2520	Psychiatric Nursing	2	Prerequisites: NUR 1025, NUR 1025C, NUR 1025L, NUR 1060C, NUR 1141; Corequisites: NUR 2520L
NUR 2520L	Psychiatric Nursing Clinical Lab	1	Prerequisites: NUR 1025, NUR 1025C, NUR 1025L, NUR 1060C, NUR 1141; Corequisites: NUR 2520
NUR 2680L	Community Health Nursing Lab	1	Prerequisites: NUR 1025, NUR 1025C, NUR 1025L, NUR 1141

DISCIPLINE COURSES FOURTH SEMESTER (10.00 Credits)
(Offered Fall & Spring)

NUR 2212	Medical-Surgical Nursing III	3	Prerequisites: NUR 2310, NUR 2310L, NUR 2420, NUR 2420L, NUR 2680L NUR 2220, NUR 2220L; Corequisites: NUR 2212L
NUR 2212L	Medical-Surgical Nursing III Clinical	2	Prerequisites: NUR 2310, NUR 2310L, NUR 2420, NUR 2420L, NUR 2680L NUR 2220, NUR 2220L; Corequisites: NUR 2212
NUR 2811C	Professional Nursing Leadership	4	Prerequisites: NUR 2310, NUR 2310L, NUR 2420, NUR 2420L, NUR 2680L
NUR 2960	Senior Seminar	1	Corequisite: NUR 2811C

Additional Information:
In order to complete 18 credits in the Mathematics/Science area, select additional credits with any prefix in the areas of natural science/mathematics that do not include courses used to meet the 18 credit general education requirements. Completion of the required sciences satisfies the general education science requirement. Credits used in this area may not be used to satisfy another area.
Students must have 12 credits in natural science/math, including all content contained in both Human Anatomy and Physiology courses and their corresponding labs.

Computer Competency (Waived with a Associates of Art degree or higher from an accredited institution)
By the 16th earned college level credit (excluding EAP and college preparatory courses), a student must take the Computer Competency Test and pass
or
By the 31st earned college level credit (excluding EAP and college preparatory courses), a student must pass CGS 1060, an equivalent continuing education or vocational credit course or retest with a passing score on the Computer Competency Test.

Due to the limited number of students that can progress to discipline courses in the School of Nursing Associate Degree Programs, it is important that students be properly informed. For information, advisement, application forms and deadline dates, interested students should contact the New Student Center, Medical Center Campus. Students with 2 or more grades of "D", "F", or "W" in required science courses are not eligible to progress into the Associate Degree Nursing program discipline courses. Students are also required to have no more than (2) enrollments (D, F, W) for any individual science course for the program.
Minimum GPA of 2.0 is required.

Licensing requirement for the Florida Board of Nursing must be met please review at https://floridasnursing.gov/licensing/licensed-practical-nurse-registered-nurse-by-examination/.

Students should check their academic requirement report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami-Dade. This outline includes current graduation requirements.

The final responsibility for meeting graduation requirements stated in your academic requirement report rests with you.

Miami Dade College

Nursing - R.N. (Generic Part-Time)
Associate in Science | Code: 23027 | 72 credits
CIP (1351380100**)**
Effective Term: Fall 2025 (2257)

The Generic Nursing Option is designed to prepare students without previous health care education for careers as Registered Nurses. The program is accredited by the Accreditation Commission for Education in Nursing (ACEN), 3343 Peachtree Rd. N.E., Suite 850, Atlanta, Ga., 30326, 404-975-5000, acenursing.org and approved by the Florida Board of Nursing (FBON). Graduates are eligible to apply to write the National Council Licensing Examination for Registered Nurses (NCLEX-RN). Selection is based on scores on pre-admission testing and completion of required prerequisite courses. See the School of Nursing Information website for more specific details about admission requirements. Pre-Admission tests – Applicants must take the ATI Test of Adult Basic Education (TEAS). Selection is based on cumulative grade point average (GPA) and completion of required program courses. See the School of Nursing program requirements for specific details.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading andwriting requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
PHI 2010	Introduction to Philosophy	3	Prerequisite: ENC1101
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
BSC 2085	Human Anatomy and Physiology 1	3	Corequisite: BSC 2085L
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C	Introduction to Computer Technology & Applications		
SCIENCE REQUIREMENTS (12.00 Credits)			
BSC 2085L	Human Anatomy and Physiology 1	1	Corequisite: BSC 2085
BSC 2086	Human Anatomy and Physiology 2	3	Prerequisites: BSC 2085, BSC 2085L; Corequisite: BSC 2086L
BSC 2086L	Human Anatomy and Physiology Lab 2	1	Prerequisites: BSC 2085, BSC 2085L; Corequisite: BSC 2086
CHM 1033	Chemistry for Health Sciences	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
CHM 1033L	Chemistry for Health Sciences Lab	1	Prerequisites: MAT 1033; Corequisite: CHM 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
MCB 2010	Microbiology	3	Prerequisites: BSC 2085, BSC 2085L and CHM 1033

ELECTIVES (3.00 Credits)

SPC 2608	Introduction to Public Speaking	3	Prerequisite(s): Placement by Scholastic Assessment Test (SAT) verbal subtest score; American College Testing (ACT) English subtest score; Computerized Placement Test (CPT) English subtest score; or ENC 0025 with a grade of S.

DISCIPLINE COURSES FIRST SEMESTER (6.00 Credits)
(Offered Fall & Spring)

NUR 1025	Fund of Nursing	3	Prerequisite: Program admission; Corequisites: NUR 1025C, NUR 1025L, NUR 1060C, NUR 1141
NUR 1141	Nursing Math & Pharmacology	3	Prerequisite: Program admission; Corequisites: NUR 1025C, NUR 1025L, NUR 1060C

DISCIPLINE COURSES SECOND SEMESTER (6.00 Credits)
(Offered Spring and Summer)

NUR 1025C	Fundamentals of Nursing Skills Lab	1	Prerequisite: Program admission; Corequisites: NUR 1025, NUR 1025L, NUR 1060C, NUR 1141
NUR 1025L	Fundamental of Nursing Clinical Lab	2	Prerequisite: Program admission; Corequisites: NUR 1025, NUR 1025C, NUR 1060C, NUR 1141
NUR 1060C	Adult Health Assessment	3	Prerequisite: Program admission; Corequisites: NUR 1025, NUR 1025C, NUR 1025L, NUR 1141

DISCIPLINE COURSES THIRD SEMESTER (6.00 Credits)
(Offered Spring and Summer)

NUR 1211	Medical Surgical Nursing	3	Prerequisites: NUR 1025, NUR 1025C,NUR 1025L, NUR 1060C, NUR 1141; Corequisites: NUR 1211L, NUR 1214C
NUR 1211L	Medical Surgical Nursing Clinical Lab	2	Prerequisites: NUR 1025, NUR 1025C, NUR 1025L, NUR 1060C, NUR 1141; Corequisites: NUR 1211, NUR 1214C
NUR 1214C	Medical Surgical Nursing Skills Lab	1	Prerequisites: NUR 1025, NUR 1025C, NUR 1025L, NUR 1060C, NUR 1141; Corequisites: NUR 1211, NUR 1211L

DISCIPLINE COURSES FOURTH SEMESTER (6.00 Credits)
(Offered Fall & Spring)

NUR 2310	Pediatric Nursing	2	Prerequisites: NUR 1025, NUR 1025C, NUR 1025L, NUR 1060C, NUR 1141; Corequisites: NUR 2310L
NUR 2310L	Pediatric Nursing Clinical Lab	1	Prerequisites: NUR 1025, NUR1025C, NUR 1025L, NUR 1060C, NUR 1141; Corequisites: NUR 2310
NUR 2420	Obstetrical Nursing	2	Prerequisites: NUR 1025, NUR1025C, NUR 1025L, NUR 1060C, NUR 1141; Corequisites: NUR 2420L
NUR 2420L	Obstetrical Nursing Clinical Lab	1	Prerequisites: NUR 1025, NUR 1025C, NUR 1025L, NUR 1060C, NUR 1141; Corequisites: NUR 2420

DISCIPLINE COURSES FIFTH SEMESTER (5.00 Credits)
(Offered Fall & Spring)

NUR 2220	Medical Surgical Nursing II	3	Prerequisites: NUR 1211, NUR 1211L, NUR 1214C; Corequisite: NUR 220L
NUR 2220L	Medical Surgical Nursing II Clinical	1	Prerequisites: NUR 1211, NUR 1211L, NUR 1214C; Corequisite: NUR 2220
NUR 2680L	Community Health Nursing Lab	1	Prerequisites: NUR 1025, NUR 1025C, NUR 1025L, NUR 1141

DISCIPLINE COURSES SIXTH SEMESTER (6.00 Credits)
(Offered Fall & Spring)

NUR 2212	Medical-Surgical Nursing III	3	Prerequisites: NUR 2310, NUR 2310L,NUR 2420, NUR 2420L, NUR 2680L NUR 2220, NUR 2220L; Corequisites: NUR 2212L
NUR 2520	Psychiatric Nursing	2	Prerequisites: NUR 1211, 1211L, 1214C or 1002, 1002L, NUR 1141; Corequisite: NUR 2520L
NUR 2520L	Psychiatric Nursing Clinical Lab	1	Prerequisites: NUR 1211, 1211L, 1214C or 1002, 1002L, NUR 1141; Corequisite: NUR 2520

DISCIPLINE COURSES SEVENTH SEMESTER (7.00 Credits)
(Offered Fall & Spring)

NUR 2212L	Medical-Surgical Nursing III Clinical	2	Prerequisites: NUR 2310, NUR 2310L, NUR 2420, NUR 2420L, NUR 2680L, NUR 2220, NUR 2220L; Corequisites: NUR 2212
NUR 2811C	Professional Nursing Leadership	4	Prerequisites: NUR 2310, NUR 2310L, NUR 2420, NUR 2420L, NUR 2680L
NUR 2960	Senior Seminar	1	Corequisite: NUR 2811C

Additional Information:
In order to complete 18 credits in the Mathematics/Science area, select additional credits with any prefix in the areas of natural science/mathematics that do not include courses used to meet the 18 credit general education requirements. Completion of the required sciences satisfies the general education science requirement. Credits used in this area may not be used to satisfy another area.

Students must have 12 credits in natural science/math, including all content contained in both Human Anatomy and Physiology courses and their corresponding labs.

Computer Competency (Waived with a Associates of Art degree or higher from an accredited institution)
By the 16th earned college level credit (excluding EAP and college preparatory courses), a student must take the Computer Competency Test and pass
or
By the 31st earned college level credit (excluding EAP and college preparatory courses), a student must pass CGS 1060, an equivalent continuing education or vocational credit course or retest with a passing score on the Computer Competency Test.

Due to the limited number of students that can progress to discipline courses in the School of Nursing Associate Degree Programs, it is important that students be properly informed. For information, advisement, application forms and deadline dates, interested students should contact the New Student Center, Medical Center Campus.

Students with 2 or more grades of "D", "F", or "W" in required science courses are not eligible to progress into the Associate Degree Nursing program discipline courses. Students are also required to have no more than (2) enrollments (D, F, W) for any individual science course for the program.

Minimum GPA of 2.0 is required.

Licensing requirement for the Florida Board of Nursing must be met please review at https://floridasnursing.gov/licensing/licensed-practical-nurse-registered-nurse-by-examination/.

Students should check their academic requirement report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami-Dade. This outline includes current graduation requirements.

The final responsibility for meeting graduation requirements stated in your academic requirement report rests with you.

Miami Dade College

Nursing - R.N. (Transitional Full-Time)
Associate in Science | Code: 23025 | 72 credits
CIP (1351380100**)**
Effective Term: Fall 2025 (2257)

The Transition Option in Nursing is designed for students pursuing the career of a professional nurse who hold a license or certificate in specific healthcare fields for a career as a Registered Nurse (RN). The content and clinical experiences are designed to meet the learning and professional socialization needs of this special category of student. The program is accredited by the Accreditation Commission for Education in Nursing (ACEN), 3343 Peachtree Rd. N.E., Suite 850, Atlanta, GA., 30326, 404-975- 5000, acenursing.org and approved by the Florida Board of Nursing (FBON). Graduates are eligible to apply to write the National Council Licensing Examination for Registered Nurses (NCLEX-RN). See the School of Nursing Information website for more specific details about admission requirements. Pre-Admission tests – Applicants must take the ATI Test of Essential Academic Skills (TEAS). Selection is based on cumulative grade point average (GPA) and completion of required program courses. See the School of Nursing program requirements for specific details.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
PHI 2010	Introduction to Philosophy	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
BSC 2085	Human Anatomy and Physiology 1	3	Corequisite: BSC 2085L
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C	Introduction to Computer Technology & Applications		
SCIENCE REQUIREMENTS (12.00 Credits)			
BSC 2085L	Human Anatomy and Physiology 1	1	Corequisite: BSC 2085
BSC 2086	Human Anatomy and Physiology 2	3	Prerequisites: BSC 2085, BSC 2085L; Corequisite: BSC 2086L
BSC 2086L	Human Anatomy and Physiology Lab 2	1	Prerequisites: BSC 2085, BSC 2085L; Corequisite: BSC 2086
CHM 1033	Chemistry for Health Sciences	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
CHM 1033L	Chemistry for Health Sciences Lab	1	Prerequisites: MAT 1033;
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
MCB 2010	Microbiology	3	Prerequisites: BSC 2085, BSC 2085L and CHM 1033

ELECTIVES (3.00 Credits)

SPC 2608	Introduction to Public Speaking	3	Prerequisite(s): Placement by Scholastic Assessment Test (SAT) verbal subtest score; American College Testing (ACT) English subtest score; Computerized Placement Test (CPT) English subtest score; or ENC 0025 with a grade of S.

DISCIPLINE COURSES FIRST SEMESTER (7.00 Credits)

NUR 1002	Transition to Professional Nursing	2	Prerequisite: Program admission
---OR---			
NUR 1006	Healthcare Professions to RN Transition	5	Prerequisite: Program admission
NUR 1008	Transition to Medical Surgical Nursing	5	

DISCIPLINE COURSES SECOND SEMESTER (5.00 Credits)

NUR 1002L	Transition to Professional Nursing Laboratory	2	
NUR 1141	Nursing Math & Pharmacology	3	Corequisites: NUR 1002 or NUR 1006, NUR 1008

DISCIPLINE COURSES THIRD SEMESTER (10.00 Credits)

NUR 2310	Pediatric Nursing	2	Prerequisites: NUR 1002 or NUR 1006, NUR 1002L, NUR 1141; Corequisite: NUR 2310L, 2680L
NUR 2310L	Pediatric Nursing Lab	1	Prerequisites: NUR 1002 or NUR 1006, NUR 1002L, NUR 1141; Corequisite: NUR 2310, 2680L
NUR 2420	Obstetrical Nursing	2	Prerequisites: NUR 1002 or NUR 1006, NUR 1002L,NUR 1141; Corequisite: NUR 2420L, 2680L
NUR 2420L	Obstetrical Nursing Clinical Lab	1	Prerequisites: NUR 1002 or NUR 1006, NUR 1002L, NUR 1141; Corequisite: NUR 2420, 2680L
NUR 2520	Psychiatric Nursing	2	Prerequisites: NUR 1002 or NUR 1006, NUR 1002L, NUR 1141; Corequisite: NUR 2520L, 2680L
NUR 2520L	Psychiatric Nursing Clinical Lab	1	Prerequisites: NUR 1002 or NUR 1006, NUR 1002L, NUR 1141; Corequisite: NUR 2520, 2680L
NUR 2680L	Community Health Nursing Lab	1	Prerequisites: NUR 1002 or NUR 1006, NUR 1002L, NUR 1141

DISCIPLINE COURSES FOURTH SEMESTER (10.00 Credits)

NUR 2212	Medical-Surgical Nursing III	3	Prerequisites: NUR 2310, NUR 2310L, NUR 2420, NUR 2420L, NUR 2520, NUR 2520L, NUR 2680L Corequisite: NUR 2212L
NUR 2212L	Medical-Surgical Nursing III Clinical	2	Prerequisites: NUR 2310, NUR 2310L, NUR 2420, NUR 2420L, NUR 2520, NUR 2520L, NUR 2680L Corequisite: NUR 2212
NUR 2811C	Prof Nursing Leadership	4	Prerequisites: NUR 2310, NUR 2310L, NUR 2420, NUR 2420L, NUR 2520, NUR 2520L, NUR 2680L
NUR 2960	Senior Seminar	1	Corequisite: NUR 2811C

Additional Information:

In order to complete 18 credits in the Mathematics/Science area, select additional credits with any prefix in the areas of natural science/mathematics that do not include courses used to meet the 18 credit general education requirements. Completion of the required sciences satisfies the general education science requirement. Credits used in this area may not be used to satisfy another area.

Students must have 12 credits in natural science/math, including all content contained in both Human Anatomy and Physiology courses and their corresponding labs.

Computer Competency (Waived with a Associates of Art degree or higher from an accredited institution)

By the 16th earned college level credit (excluding EAP and college preparatory courses), a student must take the Computer Competency Test and pass
or
By the 31st earned college level credit (excluding EAP and college preparatory courses), a student must pass CGS 1060, an equivalent continuing education or vocational credit course or retest with a passing score on the Computer Competency Test.

Due to the limited number of students that can progress to discipline courses in the School of Nursing Associate Degree Programs, it is important that students be properly informed. For information, advisement, application forms and deadline dates, interested students should contact the New Student Center, Medical Center Campus.

Students with 2 or more grades of "D", "F", or "W" in required science courses are not eligible to progress into the Associate Degree Nursing program discipline courses. Students are also required to have no more than (2) enrollments (D, F, W) for any individual science course for the program.
Minimum GPA of 2.0 is required.

Licensing requirement for the Florida Board of Nursing must be met please review at https://floridasnursing.gov/licensing/licensed-practical-nurse-registered-nurse-by-examination/.

Students should check their academic requirement report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami-Dade. This outline includes current graduation requirements.
The final responsibility for meeting graduation requirements stated in your academic requirement report rests with you.

Miami Dade College

Nursing - R.N. (Transitional Part-Time)
Associate in Science | Code: 23026 | 72 credits
CIP (1351380100**)**
Effective Term: Fall 2025 (2257)

The Transition Option in Nursing is designed for students pursuing the career of a professional nurse who hold a license or certificate in specific healthcare fields for a career as a Registered Nurse (RN). The content and clinical experiences are designed to meet the learning and professional socialization needs of this special category of student. The program is accredited by the Accreditation Commission for Education in Nursing (ACEN), 3343 Peachtree Rd. N.E., Suite 850, Atlanta, GA., 30326, 404-975- 5000, acenursing.org and approved by the Florida Board of Nursing (FBON). Graduates are eligible to apply to write the National Council Licensing Examination for Registered Nurses (NCLEX-RN). See the School of Nursing Information website for more specific details about admission requirements. Pre-Admission tests – Applicants must take the ATI Test of Essential Academic Skills (TEAS). Selection is based on cumulative grade point average (GPA) and completion of required program courses. See the School of Nursing program requirements for specific details.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
PHI 2010	Introduction to Philosophy	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
BSC 2085	Human Anatomy and Physiology 1	3	Corequisite: BSC 2085L
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C	Introduction to Computer Technology & Applications		
SCIENCE REQUIREMENTS (12.00 Credits)			
BSC 2085L	Human Anatomy and Physiology 1	1	Corequisite: BSC 2085
BSC 2086	Human Anatomy and Physiology 2	3	Prerequisites: BSC 2085, BSC 2085L; Corequisite: BSC 2086L
BSC 2086L	Human Anatomy and Physiology Lab 2	1	Prerequisites: BSC 2085, BSC 2085L; Corequisite: BSC 2086
CHM 1033	Chemistry for Health Sciences	3	Prerequisite: MAT 1033•
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
CHM 1033L	Chemistry for Health Sciences Lab	1	Prerequisites: MAT 1033•;
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
MCB 2010	Microbiology	3	Prerequisites: BSC 2085, BSC 2085L and CHM 1033

ELECTIVES (3.00 Credits)

SPC 2608	Introduction to Public Speaking	3	Prerequisite(s): Placement by Scholastic Assessment Test (SAT) verbal subtest score; American College Testing (ACT) English subtest score; Computerized Placement Test (CPT) English subtest score; or ENC 0025 with a grade of S.

DISCIPLINE COURSES FIRST SEMESTER (7.00 Credits)

NUR 1002	Transition to Professional Nursing	2	Prerequisite: Program admission
---OR---			
NUR 1006	Healthcare Professions to RN Transition	5	Prerequisite: Program admission
NUR 1008	Transition to Medical Surgical Nursing	5	

DISCIPLINE COURSES SECOND SEMESTER (5.00 Credits)

NUR 1002L	Transition to Professional Nursing Laboratory	2	
NUR 1141	Nursing Math & Pharmacology	3	Corequisites: NUR 1002 or NUR 1006, NUR 1008

DISCIPLINE COURSES THIRD SEMESTER (6.00 Credits)

NUR 2310	Pediatric Nursing	2	Prerequisites: NUR 1002 or NUR 1006, NUR 1002L, NUR 1141; Corequisite: NUR 2310L, 2680L
NUR 2310L	Pediatric Nursing Lab	1	Prerequisites: NUR 1002 or NUR 1006, NUR 1002L,NUR 1141; Corequisite: NUR 2310, 2680L
NUR 2420	Obstetrical Nursing	2	Prerequisites: NUR 1002 or NUR 1006, NUR 1002L, NUR 1141; Corequisite: NUR 2420L, 2680L
NUR 2420L	Obstetrical Nursing Clinical Lab	1	Prerequisites: NUR 1002 or NUR 1006, NUR 1002L, NUR 1141; Corequisite: NUR 2420, 2680L

DISCIPLINE COURSES FOURTH SEMESTER (4.00 Credits)

NUR 2520	Psychiatric Nursing	2	Prerequisites: NUR 1002 or NUR 1006, NUR 1002L,NUR 1141; Corequisite: NUR 2520L, 2680L
NUR 2520L	Psychiatric Nursing Clinical Lab	1	Prerequisites: NUR 1002 or NUR 1006, NUR 1002L, NUR 1141; Corequisite: NUR 2520, 2680L
NUR 2680L	Community Health Nursing Lab	1	Prerequisites: NUR 1002 or NUR 1006, NUR 1002L, NUR 1141

DISCIPLINE COURSES FIFTH SEMESTER (5.00 Credits)

NUR 2212	Medical-Surgical Nursing III	3	Prerequisites: NUR 2310, NUR 2310L, NUR 2420, NUR 2420L, NUR 2520, NUR 2520L, NUR 2680L Corequisite: NUR 2212L
NUR 2212L	Medical-Surgical Nursing III Clinical	2	Prerequisites: NUR 2310, NUR 2310L, NUR 2420, NUR 2420L, NUR 2520, NUR 2520L, NUR 2680L Corequisite: NUR 2212

DISCIPLINE COURSES SIXTH SEMESTER (5.00 Credits)

NUR 2811C	Professional Nursing Leadership	4	Prerequisites: NUR 2310, NUR 2310L, NUR 2420, NUR 2420L, NUR 2520, NUR 2520L, NUR 2680L
NUR 2960	Senior Seminar	1	Corequisite: NUR 2811C

Additional Information:
In order to complete 18 credits in the Mathematics/Science area, select additional credits with any prefix in the areas of natural science/mathematics that do not include courses used to meet the 18 credit general education

requirements. Completion of the required sciences satisfies the general education science requirement. Credits used in this area may not be used to satisfy another area.

Students must have 12 credits in natural science/math, including all content contained in both Human Anatomy and Physiology courses and their corresponding labs.

Computer Competency (Waived with a Associates of Art degree or higher from an accredited institution)
By the 16th earned college level credit (excluding EAP and college preparatory courses), a student must take the Computer Competency Test and pass
or
By the 31st earned college level credit (excluding EAP and college preparatory courses), a student must pass CGS 1060, an equivalent continuing education or vocational credit course or retest with a passing score on the Computer Competency Test.

Due to the limited number of students that can progress to discipline courses in the School of Nursing Associate Degree Programs, it is important that students be properly informed. For information, advisement, application forms and deadline dates, interested students should contact the New Student Center, Medical Center Campus.

Students with 2 or more grades of "D", "F", or "W" in required science courses are not eligible to progress into the Associate Degree Nursing program discipline courses. Students are also required to have no more than (2) enrollments (D, F, W) for any individual science course for the program.

Minimum GPA of 2.0 is required.

Licensing requirement for the Florida Board of Nursing must be met please review at https://floridasnursing.gov/licensing/licensed-practical-nurse-registered-nurse-by-examination/.

Students should check their academic requirement report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami-Dade. This outline includes current graduation requirements.

The final responsibility for meeting graduation requirements stated in your academic requirement report rests with you.

Miami Dade College

Opticianry
Associate in Science | Code: 23041 | 72 credits
CIP (1351180100**)**
Effective Term: Fall 2025 (2257)

The Opticianry program simultaneously prepares students for three ophthalmic health care careers: optician, optometric technician and ophthalmic medical assistant. A concentrated presentation of general education courses combined with career development and clinical experience accomplishes this multi-disciplinary approach. Among the marketable skills acquired are clinical data collection, ophthalmic fabrication and ophthalmic dispensing. The student begins working with patients during the third semester in clinics staffed by ophthalmologists, optometrists and opticians. A student must maintain a grade point average of 2.0 or better in each course with an "OPT" prefix in order to advance within the program. The successful completion of this program offers the graduate a challenging and rewarding career on an ophthalmic health care team. Graduates are eligible to sit for the Opticianry Licensure Examination and the Optometric Technician Registration Examination. After one year of work experience with an ophthalmologist, graduates may sit for the Ophthalmic Medical Assistant Certification Examination. The Opticianry program is approved by the Council on Optometric Education and the Commission on Opticianry Accreditation.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
NATURAL SCIENCE (3.00 credits)			
BSC 1005	General Biology	3	
CHM 1020	General Education Chemistry	3	
PHY 1020	Fundamentals of Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	

COMPUTER COMPETENCY
Test type(s) needed:
Computer Competency Test (CCT)

---OR---
CGS 1060C Introduction to Computer Technology & Applications

MAJOR CORE REQUIREMENTS (57.00 Credits) FIRST TERM IN MILESTONE

OPT 1110	Physical and Geometric Optics	4	Corequisites: OPT 1205, OPT 1330
OPT 1205	Ocular Anatomy, Physiology & Pathology	3	Corequisites: OPT 1110, OPT 1330
OPT 1330	Clinical Data Collection 1	2	Corequisites: OPT 1110, OPT 1205

SECOND TERM IN MILESTONE

OPT 1150	Ophthalmic Lenses	2	Prerequisites: OPT 1110, OPT 1205, OPT 1330;Corequisites: OPT 1331, OPT 1331L, OPT 1450, OPT 1450L, OPT 2505, OPT 2070L
OPT 1331	Clinical Data Collection 2	2	Prerequisites: OPT 1110, OPT 1205, OPT 1330; Corequisites: OPT 1150, OPT 1331L, OPT 1450, OPT 1450L, OPT 2505, OPT 2070L
OPT 1331L	Clinical Data Collection 2 Laboratory	1	Prerequisites: OPT 1110, OPT 1205, OPT 1330; Corequisites: OPT 1150, OPT 1331, OPT 1450, OPT 1450L, OPT 2505, OPT 2070L
OPT 1450	Ophthalmic Dispensing Procedures 1	1	Prerequisites: OPT 1110, OPT 1205, OPT 1330; Corequisites: OPT 1150, OPT 1331, OPT 1131L, OPT 1450L, OPT 2505, OPT 2070L
OPT 1450L	Ophthalmic Dispensing Procedures 1 Laboratory	1	Prerequisites: OPT 1110, OPT 1205, OPT 1330; Corequisites: OPT 1150, OPT 1331, OPT 1131L, OPT 1450, OPT 2505, OPT 2070L
OPT 2505	Contact Lenses 1	3	Prerequisites: OPT 1110, OPT 1205, OPT 1330; Corequisites: OPT 1150, OPT 1331, OPT 1131L, OPT 1450, OPT 1450L, OPT 2070L
OPT 2070L	Computers for Vision Care	1	Prerequisites: OPT 1110, OPT 1205, OPT 1330; Corequisites: OPT 1150, OPT 1331, OPT 1131L, OPT 1450, OPT 1450L, OPT 2505

THIRD TERM IN MILESTONE

OPT 2375	Refractometry	1	Prerequisites: OPT 1150, OPT 1331, OPT 1331L, OPT 1450, OPT 1450L, OPT 2505, OPT 2070L; Corequisites: OPT 2375L, OPT 2420, OPT 2420L, OPT 2451, OPT 2451L, OPT 2506, OPT 2506L, OPT 2800L
OPT 2375L	Refractometry Laboratory	1	Prerequisites: OPT 1150, OPT 1331, OPT 1331L OPT 1450, OPT 1450L, OPT 2505, OPT 2070L; Corequisites: OPT 2375, OPT 2420, OPT 2420L, OPT 2451, OPT 2451L, OPT 2506, OPT 2506L, OPT 2800L
OPT 2420	Eyewear Fabrication 1	2	Prerequisites: OPT 1150, OPT 1331, OPT 1331L, OPT 1450, OPT 1450L, OPT 2505, OPT 2070L; Corequisites: OPT 2375, OPT 2375L, OPT 2420L, OPT 2451, OPT 2451L, OPT 2506, OPT 2506L, OPT 2800L
OPT 2420L	Eyewear Fabrication 1 Laboratory	1	Prerequisites: OPT 1150, OPT 1331, OPT 1331L,OPT 1450, OPT 1450L, OPT 2505, OPT 2070L; Corequisites: OPT 2375, OPT 2375L, OPT 2420, OPT 2451, OPT 2451L, OPT 2506, OPT 2506L, OPT 2800L

OPT 2451	Ophthalmic Dispensing Procedures 2	1	Prerequisites: OPT 1150, OPT 1331, OPT 1331L, OPT 1450, OPT 1450L, OPT 2505, OPT 2070L; Corequisites: OPT 2375, OPT 2375L, OPT 2420, OPT 2420L, OPT 2451L, OPT 2506, OPT 2506L, OPT 2800L
OPT 2451L	Ophthalmic Dispensing Procedures 2 Laboratory	1	Prerequisites: OPT 1150, OPT 1331, OPT 1331L, OPT 1450, OPT 1450L, OPT 2505, OPT 2070L; Corequisites: OPT 2375, OPT 2375L, OPT 2420, OPT 2420L, OPT 2451, OPT 2506, OPT 2506L, OPT 2800L
OPT 2506	Contact Lenses 2	2	Prerequisites: OPT 1150, OPT 1331, OPT 1331L, OPT 1450, OPT 1450L, OPT 2505, OPT 2070L; Corequisites: OPT 2375, OPT 2375L, OPT 2420, OPT 2420L, OPT 2451, OPT 2451L, OPT 2506L, OPT 2800L
OPT 2506L	Contact Lenses 2 Laboratory	1	Prerequisites: OPT 1150, OPT 1331, OPT 1331L, OPT 1450, OPT 1450L, OPT 2505, OPT 2070L; Corequisites: OPT 2375, OPT 2375L, OPT 2420, OPT 2420L, OPT 2451, OPT 2451L, OPT 2506, OPT 2800L
OPT 2800L	Vision Care Clinic 1	2	Prerequisites: OPT 1150, OPT 1331, OPT 1331L, OPT 1450, OPT 1450L, OPT 2505, OPT 2070L; Corequisites: OPT 2375, OPT 2375L, OPT 2420, OPT 2420L, OPT 2451, OPT 2451L, OPT 2506, OPT 2506L
FOURTH TERM IN MILESTONE			
OPT 2376L	Refractometry Laboratory II	1	Prerequisites: OPT 2375, OPT 2375L, OPT 2420, OPT 2420L, OPT 2451, OPT 2451L, OPT 2506, OPT 2506L, OPT 2800L; Corequisites: OPT 2421C, OPT 2801L, OPT 2830C, OPT 2875L
OPT 2421C	Eyewear Fabrication 2	3	Prerequisites: OPT 2375, OPT 2375L, OPT 2420, OPT 2420L, OPT 2451, OPT 2451L, OPT 2506, OPT 2506L, OPT 2800L; Corequisites: OPT 2376L, OPT 2801L, OPT 2830C, OPT 2875L
OPT 2801L	Vision Care Clinic 2	4	Prerequisites: OPT 2375, OPT 2375L, OPT 2420, OPT 2420L, OPT 2451, OPT 2451L, OPT 2506, OPT 2506L, OPT 2800L; Corequisites: OPT 2376L, OPT 2421C, OPT 2830C, OPT 2875L
OPT 2830C	Contact Lens Clinic 1	2	Prerequisites: OPT 2375, OPT 2375L, OPT 2420, OPT 2420L, OPT 2451, OPT 2451L, OPT 2506, OPT 2506L, OPT 2800L; Corequisites: OPT 2376L, OPT 2421C, OPT 2801L, OPT 2875L
OPT 2875L	Ophthalmic Dispensing Practicum 1	2	Prerequisites: OPT 2375, OPT 2375L, OPT 2420, OPT 2420L, OPT 2451, OPT 2451L, OPT 2506, OPT 2506L, OPT 2800L; Corequisites: OPT 2376L, OPT 2421C, OPT 2801L, OPT 2830C

FIFTH TERM IN MILESTONE

OPT 2060	Ophthalmic Management Policy & Procedures	2	Prerequisites: OPT 2376L, OPT 2421C, OPT 2801L, OPT 2830C, OPT 2875L Corequisites: OPT 2377L, OPT 2422C, OPT 2802L, OPT 2831L, OPT 2876L
OPT 2377L	Refractometry Laboratory III	1	Prerequisites: OPT 2376L, OPT 2421C, OPT 2801L, OPT 2830C, OPT 2875L Corequisites: OPT 2060, OPT 2422C, OPT 2802L,OPT 2831L, OPT 2876L
OPT 2422C	Eyewear Fabrication 3	3	Prerequisites: OPT 2376L, OPT 2421C, OPT 2801L,OPT 2830C, OPT 2875L Corequisites: OPT 2060, OPT 2377L, OPT 2802L, OPT 2831L, OPT 2876L
OPT 2802L	Vision Care Clinic 3	4	Prerequisites: OPT 2376L, OPT 2421C, OPT 2801L, OPT 2830C, OPT 2875L Corequisites: OPT 2060, OPT 2377L, OPT 2422C, OPT 2831L, OPT 2876L
OPT 2831L	Contact Lens Clinic 2	1	Prerequisites: OPT 2376L, OPT 2421C, OPT 2801L, OPT 2830C, OPT 2875L Corequisites: OPT 2060, OPT 2377L, OPT 2422C, OPT 2802L, OPT 2876L
OPT 2876L	Ophthalmic Dispensing Practicum 2	2	Prerequisites: OPT 2376L, OPT 2421C, OPT 2801L, OPT 2830C, OPT 2875L Corequisites: OPT 2060, OPT 2377L, OPT 2422C, OPT 2802L, OPT 2831L

Miami Dade College

Paralegal Studies – ABA-Approved
Associate in Science | Code: 27013 | 64 credits
CIP (1722030200**)**
Effective Term: Fall 2025 (2257)

The Paralegal program prepares students to obtain entry-level employment in law offices, government agencies, banks or business corporations. It also enables persons working in the field without a degree to upgrade their skills to become a qualified paralegal. The MDC Paralegal program is approved by the American Bar Association. The American Bar Association defines a paralegal or as "a person, qualified by education, training or work experience who is employed or retained by a lawyer, law office, corporation, governmental agency or other entity and who performs specifically delegated substantive legal work for which a lawyer is responsible." Paralegals cannot give legal advice, set fees, negotiate or represent clients in court as these activities involve unauthorized practice of law. Paralegals work under the supervision of attorneys and are not just "document preparers," working directly with the public. Additional Information: It is necessary to see an advisor prior to beginning the program and before registering each term. For more information, please contact the Paralegal Program at 305-237-7813 or visit https://www.mdc.edu/paralegal/.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theater Appreciation	3	
MATHEMATICS (3.00 credits)			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	Fundamentals of Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Government	3	

COMPUTER COMPETENCY
Test type(s) needed:
Computer Skills Placement (CSP)
---OR---
CGS 1060C Introduction to Computer Technology & Applications

MAJOR CORE REQUIREMENTS (33.00 Credits)

LCO 0999	Law Center New Student Orientation	(0 credits)	Corequisite: PLA 2003
BUL 2241	Business Law 1	3	
BUL 2242	Business Law 2	3	Prerequisite: BUL 2241
PLA 2003	Fundamentals of Law	3	Pre/Corequisite: ENC 1101; Corequisites: LCO 0999 and PLA 2931
PLA 2114	Legal Writing	3	Prerequisites: ENC 1101, PLA 2003, PLA 2120C and PLA 2931
PLA 2120C	Legal Research and Analysis	4	Prerequisite: ENC 1101; Pre/ Corequisites: PLA 2003 and PLA 2931 Departmental Approval for non-Paralegal Studies majors.
PLA 2704	Professionalism and Civility in the Law	3	
PLA 2227	Civil Law and Litigation	3	Prerequisites: ENC 1101, PLA 2003, PLA 2120C and PLA 2931
PLA 2763	Law Office Management	3	Prerequisite: PLA 2003 or 2704
PLA 2890	Human Rights Law and Procedures	3	
PLA 2931	Legal Seminar: Ethics	1	Corequisites: LCO 0999 and PLA 2003
REE 2040	Real Estate Principles and Practices	4	

PROGRAM CORE REQUIREMENTS (13.00 Credits)
(Students must select from one of the following track options.)

Track 1 – Litigation (13.00 Credits)

PLA 2273	Torts	3	Prerequisites: ENC 1101, PLA 2003, PLA 2120C, PLA 2227 and PLA 2931
PLA 2303	Criminal Law & Litigation	3	Prerequisites: ENC 1101, PLA 2003, PLA 2120C, PLA 2227, and PLA 2931
PLA 2736	Electronic Discovery, Investigations & Evidence	3	Prerequisites: ENC 1101, PLA 2003, PLA 2120C, PLA 2227 and PLA 2931
PLA 2800	Family Law	3	Prerequisites: ENC 1101, PLA 2003, PLA 2120C, PLA 2227 and PLA 2931
PLA 2934	Legal Seminar: Immigration Law	1	
---OR---			
PLA 2935	Legal Seminar: Intellectual Property Law	1	
---OR---			

Track 2 – Transaction (13.00 Credits)

PLA 2631C	Real Estate Transactions and Settlement	4	Prerequisite: REE 2040; Corequisite: PLA 2610
PLA 2600	Wills, Trusts, and Estates	3	
PLA 2610	Introduction to Real Property	4	Prerequisite: REE 2040; Corequisite: PLA 2631C
PLA 2933	Legal Seminar: Real Estate Closing	1	Prerequisite: REE 2040
---AND---			
PLA 2934	Legal Seminar: Immigration Law	1	
---OR---			
PLA 2935	Legal Seminar: Intellectual Property Law	1	
---OR---			

Track 3 – General Law Studies (13.00 Credits)

PLA 2631C	Real Estate Transactions and Settlement	4	Prerequisite: REE 2040; Corequisite: PLA 2610
PLA 2273	Torts	3	Prerequisites: ENC 1101, PLA 2003, PLA 2120C, PLA 2227 and PLA2931

PLA 2303	Criminal Law & Litigation	3	Prerequisites: ENC 1101, PLA 2003, PLA 2120C, PLA 2227 and PLA 2931
PLA 2600	Wills, Trusts, and Estates	3	
PLA 2610	Introduction to Real Property	4	Prerequisite: REE 2040; Corequisite: PLA 2631C
PLA 2736	Electronic Discovery, Investigations & Evidence	3	Prerequisites: ENC 1101, PLA 2003, PLA 2120C, PLA 2227 and PLA 2931
PLA 2800	Family Law	3	Prerequisites: ENC 1101, PLA 2003, PLA 2120C, PLA 2227 and PLA 2931
PLA 2930	Special Topics	1-3 variable	
PLA 2933	Legal Seminar: Real Estate Closing	1	Prerequisite: REE 2040
---OR---			
PLA 2934	Legal Seminar: Immigration Law	1	
---OR---			
PLA 2935	Legal Seminar: Intellectual Property Law	1	

STUDENT PRACTICUM/INTERNSHIP (3.00 Credits)
(Students must select one course from the following options.)

PLA 1949	Paralegal Studies Practicum	3	Departmental Approval Required
PLA 2940	Paralegal Studies Internship	3	Departmental Approval Required

CIVIC LITERACY COMPETENCY
Prior to the award of an associate in arts or baccalaureate degree, first-time-in-college students entering a Florida College System institution in the 2021-2022 school year, and thereafter must demonstrate competency in civic literacy. This requires both a passing grade (A, B, C, D, or S) in AMH 2020 or POS 2041 AND a passing score on the Florida Civic Literacy Examination (FCLE) (or an equivalent AP or CLEP exam). General education courses require grade of C or higher to satisfy requirement. For more information regarding the Florida Civic Literacy Requirement, go to https://www.mdc.edu/main/testing/criteria/civic-literacy-competence.aspx.

COMPUTER COMPETENCY
By the 16th earned college-level unit, students must attempt the computer competency requirement OR by the 31st earned college- level unit, students must satisfy the requirement (CGS1060C, CTS0050, an equivalent college unit course or the Computer Skills Placement examination). For more information, see http://bitly.com/UQJDHM.

ADDITIONAL INFORMATION:
Students must register for the Law Center New Student Orientation Course and associated Corequisite LCO 0999 and PLA 2003.

Students must consult with a program advisor if they wish to enroll/withdraw from a course that has Pre/ Corequisites. Departmental Approval may be required.

Students must complete all coursework with a "C" or better to complete the degree.

Only coursework from an ABA approved paralegal program will be considered for transfer.

A minimum cumulative grade point average of 2.0 is required for graduation.

Students should check their individualized Degree Audit Report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami Dade. This outline includes current graduation requirements.

The final responsibility for meeting graduation requirements rests with the student.

Miami Dade College

Photographic Technology
Associate in Science | Code: 26032 | 64 credits
CIP (1650060500**)**
Effective Term: Fall 2025 (2257)

The Photographic Technology program is designed to meet individual students' needs for either further study or immediate employment in the field of commercial and industrial photography. Students develop a wide variety of photographic and art- related skills and the ability to use these skills to produce commercially viable photographs. Instruction covers portrait photography, still photography, fashion photography, illustrative photography as well as the business skills needed to manage a photographic enterprise. Various internships such as in biomedical and forensic technology are available to students.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	Prerequisite: ENC1101
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	

COMPUTER COMPETENCY REQUIREMENT
Test type(s) needed:
Computer Competency Test (CCT)
---OR---
CGS 1060C Introduction to Computer Technology & Applications

MAJOR COURSE REQUIREMENTS (40.00 Credits)

ART 1202C	Two-Dimensional Design	3-4	
ART 1300C	Drawing	3-4	
PGY 2110C	Color Photography 1	3-4	Prerequisite: PGY 2401C
PGY 2111C	Color Photography 2	4	Prerequisite: PGY 2110C
PGY 2211	Portrait and Still Photography	4	Prerequisite: PGY 2410C
PGY 2238	Illustrative Photography 1	4	Prerequisite: PGY 2410C
PGY 2239	Illustrative Photography 2	4	Prerequisite: PGY 2238
PGY 2401C	Introduction to Photography	3-4	Prerequisites: ART 1203C, 1300C, or Equivalent
PGY 2404C	Intermediate Photography	3-4	Corequisite: PGY 2401C
PGY 2470C	Portfolio Preparation	4	Prerequisites: PGY 2111C, PGY 2211, PGY 2222, PGY 2238

OTHER ELECTIVES (9.00 Credits)

ART 1205C	Color and Composition 1	3-4	
ART 2600C	Computer Art	3-4	Prerequisites: ART 1201C, ART 1300C
ART 2601C	Intermediate Computer Art	3-4	Prerequisite: ART 2600C
ART 2602C	Advanced computer Art	4	
ART 2802C	Visual Arts Workshop	1-4	
GRA 1280C	Introduction to Digital Imaging	4	
GRA 2117C	Computer Assisted Graphic Design	4	
GRA 2121C	Professional Desktop Publishing Media	4	Prerequisites: GRA 1111C, GRA 1206C, GRA 2117C; Pre/Corequisite: GRA 1280C
GRA 2151C	Digital Graphic Painting	4	Prerequisites: GRA 1280C, GRA 2117
GRA 2156C	Electronic Photoshop	4	Prerequisites: GRA 1751, GRA 1754
GRA 2203C	Advanced Electronic Publishing	4	Prerequisites: GRA 2121C, GRA 2151
PGY 2112C	Color Photography 3	4	
PGY 2222	Fashion Photography	4	
PGY 2475	Advanced Photography	3-4	Prerequisite: PGY 2410C
PGY 2800C	Digital Photography	4	Prerequisites: ART 1205C, ART 1300C, PGY 2401C

Miami Dade College

Physical Therapist Assistant
Associate in Science | Code: 23034 | 74 credits
CIP (1351080601**)**
Effective Term: Fall 2025 (2257)

The Physical Therapist Assistant program prepares students for employment in hospitals, rehabilitation centers, nursing homes, private practices or other qualified health agencies. Graduates will work under the supervision of a physical therapist in the promotion of optimal human health and function through the application of scientific principles to prevent, identify, correct or alleviate acute or prolonged physical disability of anatomic or physiologic origin. Externship or clinical practice is conducted in local health care facilities under the supervision of qualified professional personnel. The program is accredited by the Commission on Accreditation in Physical Therapy Education. Graduates of the program are eligible to take the State Board Examination.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
BSC 2085	Human Anatomy and Physiology 1	3	Corequisite: BSC 2085L
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C	Introduction to Computer Technology & Applications		
SCIENCE REQUIREMENTS (9.00 Credits)			
BSC 2085L	Human Anatomy and Physiology 1 Laboratory	1	Corequisite: BSC 2085
BSC 2086	Human Anatomy & Physiology 2	3	Prerequisite: BSC 2085; Corequisite: BSC 2086L
BSC 2086L	Human Anatomy & Physiology 2 Laboratory	1	Prerequisites: BSC 2085, BSC 2085L; Corequisite: BSC 2086
PHY 1004	Physics with Applications	3	Prerequisite: MAT 1033; Corequisite: PHY 1004L
PHY 1004L	Physics with Applications 1 Lab	1	Corequisite: PHY 1004

ELECTIVE REQUIREMENT (1.00 credits)

IDS 1107	Tools for Success	1	
LIS 2004	Strategies for Online Research	1	
MAT 1033	Intermediate Algebra	3	Prerequisites: MAT 0022C, or MAT 0028, or MAT 0057 or by placement score, or eligible exemption.
SPC 1017	Introduction to Communications	3	
PHI 2604	Critical Thinking and Ethics	3	Prerequisite: ENC 1101 PSY 2012 Introduction to Psychology 3

MAJOR CORE REQUIREMENTS (49.00 Credits)

HIM 2472	Medical Terminology	3	
PHT 1102C	Anatomy for the Physical Therapist Assistant	4	Prerequisites: BSC 2085, BSC 2085L, PHY 1004, PHY 1004L; Corequisites: PHT 1201, PHT 1201L, PHT 1211, PHT 1211L
PHT 1201	Introduction to Physical Therapy	2	Prerequisites: BSC 2085, BSC 2085L, PHY 1004, PHY 1004L; Corequisites: PHT 1102C, PHT 1201L, PHT 1211, PHT 1211L
PHT 1201L	Introduction to Physical Therapy Laboratory	1	Prerequisites: BSC 2085, BSC 2085L, PHY 1004, PHY 1004L; Corequisites: PHT 1102C, PHT 1201, PHT 1211, PHT 1211L
PHT 1211	Disabilities & Therapeutic Procedures 1	2	Prerequisites: BSC 2085, BSC 2085L, PHY 1004,PHY 1004L; Corequisites: PHT 1102C, PHT 1201, PHT 1201L, PHT 1211L
PHT 1211L	Disabilities & Therapeutic Procedures 1 Laboratory	2	Prerequisites: BSC 2085, BSC, 2085L, PHY 1004 PHY 1004L; Corequisites: PHT 1102C, PHT 1201, PHT 1201L, PHT 1211
PHT 2120	Applied Kinesiology	2	Prerequisites: BSC 2086, BSC 2086L, PHT 1102C, PHT 1201, PHT 1201L, PHT 1211, PHT 1211L; Corequisites: PHT 2120L, PHT 2224, PHT 2224L, PHT 2801C
PHT 2120L	Applied Kinesiology Laboratory	1	Prerequisites: BSC 2086, BSC 2086L, PHT 1102C, PHT 1201, PHT 1201L, PHT 1211, PHT 1211L; Corequisites: PHT 2120, PHT 2224, PHT 2224L, PHT 2801C
PHT 2162	Survey of Neurological Deficits	3	Prerequisites: PHT 2120, PHT 2120L, PHT 2224, PHT 2224L, PHT 2801C; Corequisites: PHT 2701, PHT 2701L, PHT 2810
PHT 2224	Disabilities and Therapeutic Procedures 2	3	Prerequisites: BSC 2086, 2086L, PHT 1102C, PHT 1201, PHT 1201L, PHT 1211, PHT 1211L; Corequisites: PHT 2120, PHT 2120L, PHT 2224L, PHT 2801C
PHT 2224L	Disabilities and Therapeutic Procedures 2	2	Prerequisites: BSC 2086, BSC 2086L, PHT 1102C, Laboratory PHT 1201, PHT 1201L, PHT 1211, PHT 1211L; Corequisites: PHT 2120, PHT 2120L, PHT 2224, PHT 2801C
PHT 2701	Rehabilitation Procedures	3	Prerequisites: PHT 2120, PHT 2120L, PHT 2224, PHT 2224L, PHT 2801C; Corequisites: PHT 2162, 2701L, 2810

PHT 2701L	Rehabilitation Procedures Laboratory	2	Prerequisites: PHT 2120, PHT 2120L, PHT 2224, PHT 2224L, PHT 2801C; Corequisites: PHT 2162, PHT 2701, PHT 2810
PHT 2801C	Clinical Practice and Conference I	2	Prerequisites: BSC 2086, BSC 2086L, PHT 1102C, PHT 1201, PHT 1201L, PHT 1211, PHT 1211L; Corequisites: PHT 2120, PHT 2120L, PHT 2224, PHT 2224L
PHT 2810	Clinical Practice and Conference II	(7 credits)	Prerequisites: PHT 2120, PHT 2120L, PHT 2224, PHT 2224L, PHT 2801C; Corequisites: PHT 2162, PHT 2701, PHT 2701L
PHT 2820	Clinical Practice and Conference III	(7 credits)	Prerequisites: PHT 2162, PHT 2701, PHT 2701L, PHT 2810 Corequisite: PHT 2931
PHT 2931	Seminar for Physical Therapist Assistants	3	Prerequisites: PHT 2162, PHT 2701, PHT 2701L, PHT 2810 Corequisite: PHT 2820

ADDITIONAL INFORMATION

It is highly recommended that students visit the program website for important information. Physical Therapist Assistant Associate in Science | Miami Dade College (mdc.edu)

It is important to review the program requirements and student selection criteria Program requirements for Physical Therapist Assistant Associate in Science | Miami Dade College (mdc.edu). Meeting the milestone requirements does not guarantee program progression into discipline courses. For this reason, specific selection criteria are used to determine which students will progress to discipline courses.

Students must take the TEAS Health Science exam as part of their application requirements. Please note there are two versions, the health science exam is the required one not the nursing exam.

Observation hours may be required as part of the application process. Please check the selection criteria on the website.

COMPUTER COMPETENCY
By the 16th earned college-level unit, students must attempt the computer competency requirement **OR** by the 31st earned college- level unit, students must satisfy the requirement (CGS 1060C, CTS 0050, an equivalent college unit course or the Computer Skills Placement examination). For more information, see http://bitly.com/UQJDHM.

Academic Pathway at MDC: The Associate in Science (AS) in Physical Therapist Assistant is a pathway to the BAS in Supervision and Management. To learn more about the courses listed see College Catalog.

Miami Dade College

Professional Pilot Technology
Associate in Science | Code: 26029 | 64 credits
CIP (1649010200**)**
Effective Term: Fall 2025 (2257)

The Professional Pilot Technology program is primarily developed to meet the challenging regional airline requirements for pilots; therefore, graduates of the program will earn the following Federal Aviation Administration (FAA) Certificates: Commercial Pilot with Single and Multi-Engine Ratings. In addition, these certificates can be applied toward a Certified Flight Instructor (CFI) Certificate. The Accelerated track was developed to meet the emerging workforce needs and prepare students for employment within 12 months.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIRED (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
PHI 2010	Introduction to Philosophy	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
ESC 1000	General Education Earth Science	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C	Introduction to Computer Technology & Applications		
PROGRAM CORE REQUIREMENTS (34.00 – 36.00 Credits)			
Group A: Non-Accelerated Track (34.00 credits)			
ASC 1210	Aviation Meteorology	3	Corequisite ATT 2110 or equivalent
ASC 1550	Aerodynamics	3	
ASC 1610	Aircraft Engines and Structures	3	
ASC 2320	Aviation Laws and Regulations	3	
ASC 2470	Physiology/Psychology of Flight	3	
ASC 2670	Aircraft Systems	3	Prerequisite: ASC 1610
ATF 2210	Commercial Pilot Flight	3	
ATF 2305	Instrument Pilot Flight	3	Corequisite: ATT 2120, Current FAA Medical Certificate
ATT 2110	Commercial Pilot Theory	3	Prerequisite: ATF 2210 Corequisite: ATF 2300 or 2210
ATT 2120	Instrument Pilot Theory	4	Prerequisite: ASC 1210 Corequisite: ATF 2210

ATT2820	Air Traffic Control	3	Prerequisite: Sophomore Standing in Major Program.

---OR---

Group B: Accelerated Track (36.00 credits)

ASC 1210	Aviation Meteorology	3	Corequisite ATT 2110 or equivalent
ASC 1550	Aerodynamics	3	
ASC 1610	Aircraft Engines and Structures	3	
ASC 2320	Aviation Laws and Regulations	3	
ASC 2470	Physiology/Psychology of Flight	3	
ASC 2670	Aircraft Systems	3	Prerequisite: ASC 1610
ATF 2210L	Commercial Pilot Flight Accelerated	3	
ATF 2305L	Instrument Pilot Flight Accelerated	3	Corequisite: ATT 2120, Current FAA Medical Certificate
ATT 2110	Commercial Pilot Theory	3	Prerequisite: ATF 2210 Corequisite: ATF 2300 or ATF 2210
ATT 2120	Instrument Pilot Theory	4	Prerequisite: ASC 1210 Corequisite: ATF 2210
ATT 2133	Multi-Engine Pilot Theory	2	
ATT 2820	Air Traffic Control	3	Prerequisite: Sophomore Standing in Major Program.

ELECTIVES (13.00 – 15.00 Credits)

ATF 2400	Multi-Engine Pilot Flight	3	Prerequisite: ATF 1100 or ATF 2210 Corequisite: ATT 2133
ATF 2501	Flight Instructor-Flight Training	3	Prerequisite: ATF 2300 Corequisites: ATT 2131, ATF 2501L
ATF 2501L	Flight Instructor laboratory	1	Prerequisite: ATF 2300 Corequisites: ATT 2131, ATF 2501
ATT 2131	Flight Instructor Theory	3	Prerequisite: ATF 2300 Corequisites: ATF 2501, ATF 2501L
ATT 2133	Multi-Engine Pilot Theory	2	
ATT 2660	Regional Airline Operations	3	Prerequisites: ASC 1610, ATT 2110, ATT 2120
ATT 2821	Air Traffic Control (ATC) Radar	3	Prerequisites: ATT 2820, ASC 1210
ATT 2822	VFR Tower Operations	3	Prerequisite: ATT 2820
ATT 2823	Air Traffic Control (ATC) Non-Radar	3	Prerequisites: ATT 2820, ASC 1210
AVM 1949	Co-Op Work Experience 1: AVI	3	
CGS 1060C	Introduction to Computer Technology & Applications	4	
MAT 1033	Intermediate Algebra	3	Prerequisite: MAT 0022C, or MAT 0028, or MAT 0057 or by placement score, or eligible exemption.

Miami Dade College

Radiation Therapy
Associate in Science | Code: 23058 | 77 credits
CIP (1351090701**)**
Effective Term: Fall 2025 (2257)

The Radiation Therapy program is a comprehensive educational program designed to prepare students for a career as a skilled and knowledgeable Radiation Therapist. As a key member of the healthcare team, Radiation Therapists use various forms of radiation, such as high-energy X-rays and electron beams, to treat cancer patients. The program provides students with extensive knowledge of radiation therapy procedures, treatment planning, and imaging technologies. In addition, students develop cognitive skills such as critical thinking, problem-solving, and effective communication with patients, their families, and other healthcare professionals.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MAC*		3	
MGF*		3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
NATURAL SCIENCE (3.00 credits)			
BSC 2085	Human Anatomy and Physiology 1	3	Corequisite: BSC 2085L
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C Introduction to Computer Technology & Applications			
SCIENCE REQUIREMENTS (5.00 Credits)			
BSC 2085L	Human Anatomy and Physiology 1 Laboratory	1	Corequisite: BSC 2085
BSC 2086	Human Anatomy & Physiology 2	3	Prerequisite: BSC 2085; Corequisite: BSC 2086L

BSC 2086L	Human Anatomy & Physiology 2 Laboratory	1	Prerequisites: BSC 2085, BSC 2085L; Corequisite: BSC 2086

MAJOR CORE REQUIRMENTS (54.00 credits)

RAT 1001	Introduction to Radiation Oncology	2	Corequisites: RAT 1615, RAT 1804, RAT 2123
RAT 1021C	Principles and Practices of Radiation Therapy I	2	Corequisites: RAT 1242, RAT 1614C, RAT 1615, RAT 1814, RAT 1840
RAT 1242	Clinical Oncology and Pathology	2	Prerequisites: RAT 1001, RAT 2123
RAT 1614C	Radiation Therapy Physics I	2	Corequisites: RAT 1021C, RAT 1242, RAT 1814, RAT 1840
RAT 1615	Radiation Therapy Medical Imaging	3	Corequisites: RAT 1001, RAT 1615, RAT 2123
RAT 1619	Elements of Treatment Planning	2	Corequisites: RAT 2061, RAT 2241, RAT 2834
RAT 1657	Radiation Protection/ Quality Assurance	1	
RAT 1804	Clinical Education I	5	Corequisites: RAT 1001, RAT 1615, RAT 2123
RAT 1814	Clinical Education II	5	Prerequisite: RAT 1804
RAT 1824	Clinical Education III	8	Prerequisite: RAT 2243C; Corequisites: RAT 1657, RAT 2022C, RAT 2243C, RAT 2618C
RAT 2022C	Principles and Practices of Radiation Therapy II	2	Prerequisite: RAT 1021C; Corequisites: RAT 1657, RAT 1824, RAT 2243C, RAT 2618C
RAT 2061	Radiation Therapy Seminar	3	Corequisites: RAT 1619, RAT 2241, RAT 2834
RAT 2123	Patient Care in Radiation Therapy	3	Corequisites: RAT 1001, RAT 1615, RAT 1804
RAT 2240C	Radiation Oncology Sectional Anatomy	1	Prerequisites: BSC 2085, RAT 2085L, RAT 2086, RAT 2086L
RAT 2241	Radiobiology	2	Prerequisite: RAT 1001
RAT 2243C	Clinical Oncology and Neoplasms	3	Prerequisite: RAT 1242; Corequisites: RAT 1657, RAT 1824, RAT 2022C, RAT 2618C
RAT 2618C	Radiation Therapy Physics II	2	Prerequisite: RAT 1614C; Corequisites: RAT 1657, RAT 1824, RAT 2022C, RAT 2243C
RAT 2834	Clinical Education IV	6	Prerequisite: RAT 1824; Corequisites: RAT 1619, RAT 2061, RAT 2241

ELECTIVE (3.00 Credits)

HIM 2472	Medical Terminology	3	

Miami Dade College

Radio and Television Broadcast Programming
Associate in Science | Code: 26043 | 64 credits
CIP: **(**1610020202**)**
Effective Term: Fall 2025 (2257)

The Radio and Television Broadcasting Programming program is designed for students who intend to seek employment in radio, television and production companies, as well as allied fields such as in-house educational and industrial studios. The curriculum provides introductory and advanced courses essential to the professional program. It stresses hands-on equipment use in both the radio and TV laboratories. Students will have access to high-end cameras, editing suites and video graphics animation facilities and will complete portfolio-quality productions.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Astronomy	3	
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Science	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C	Introduction to Computer Technology & Application		

MAJOR COURSE REQUIREMENTS (43.00 Credits)

FIL 2552C	Editing: Level 1: Introduction to Editing	3	
FIL 2553C	Editing: Level 2: Intermediate Editing and Visual Effects	3	Prerequisite: FIL 2552
FIL 2560C	Editing: Level 3: Advanced Editing-Color Correction and Finishing	3	Prerequisite: FIL 2553C
MMC 2000	Introduction to Mass Communications	3	
RTV 1000	Fundamentals of Broadcasting	3	
RTV 1240C	Sound Design	3	
RTV 1241C	Television Studio Production 1	4	
RTV 1242C	Television Studio Production 2	4	Prerequisite: RTV 1241C
RTV 2243C	Directing	3	Prerequisite: RTV 1242C
RTV 2245C	Electronic Field Production 1	4	Prerequisite: RTV 1242C
RTV 2246C	Electronic Field Production 2	4	Prerequisite: RTV 2245C
RTV 2300	Broadcast Writing	3	
VIC 1000	Visual Communications	3	

PROGRAM ELECTIVES (6.00 Credits)

FIL 2552C	Editing: Level 1: Introduction to Editing	3	
FIL 1030	History of Film	3	
FIL 1100	Screenwriting 1: Introduction to Story Structure	3	
FIL 2990	Selected Studies	3	
RTV 2230C	Radio and Television Announcing	3	
RTV 2940	Television Internship	3	Prerequisite: RTV 1242C
RTV 2941	Fall Television Practicum	3	Prerequisite: RTV 1242C
RTV 2942	Spring Television Practicum	3	Prerequisite: RTV 1242C
RTV 2943	Summer Television Practicum	3	Prerequisite: RTV 1242C

Miami Dade College

Radiography
Associate in Science | Code: 23037 | 77 credits
CIP (1351090700**)**
Effective Term: Fall 2025 (2257)

The Radiography Program is a two-year (6 semester) course, not including general education courses, of study requiring 77 credits for an Associate in Science degree. After completion of the program, graduates will be eligible to sit for the American Registry of Radiologic Technologists (ARRT) Board Exam to become Registered Radiographers (RT).

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
NATURAL SCIENCE (3.00 credits)			
BSC 2085	Human Anatomy and Physiology 1	3	Corequisite: BSC 2085L
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C Introduction to Computer Technology & Applications			
SCIENCE REQUIREMENTS (5.00 Credits)			
BSC 2085L	Human Anatomy and Physiology 1 Laboratory	1	Corequisite: BSC 2085
BSC 2086	Human Anatomy & Physiology 2	3	Prerequisite: BSC 2085; Corequisite: BSC 2086L
BSC 2086L	Human Anatomy & Physiology 2 Laboratory	1	Prerequisite: BSC 2085, BSC 2085L; Corequisite: BSC 2086

ELECTIVE (3.00 Credits)

PHI 2604	Critical Thinking/Ethics	3	Prerequisite: ENC 1101

MAJOR CORE REQUIREMENTS (54.00 Credits)

RTE 1000	Orientation to Imaging	2	
RTE 1418	Radiographic Technique I	3	
RTE 1503	Radiology Positioning 1	3	Corequisite: RTE 1503L
RTE 1503L	Radiology Positioning 1 Lab	1	Corequisite: RTE 1503
RTE 1513	Radiographic Positioning 2	3	Prerequisites: RTE 1503L, RTE 1503; Corequisite: RTE 1513L
RTE 1513L	Radiographic Positioning 2 Lab	1	Prerequisites: RTE 1503, RTE 1503L; Corequisite: RTE 1513
RTE 1613	Radiology Physics	2	
RTE 1804	Radiology Clinical 1	5	Corequisites: RTE 1503, RTE 1503L
RTE 1814	Radiographic Clinical 2	5	Prerequisites: RTE 1503, RTE 1503L, RTE 1804
RTE 1824	Radiographic Clinical 3	5	Prerequisite: RTE 1814
RTE 2010	New Imaging Modalities in Radiology	1	
RTE 2385	Radiation Biology	2	
RTE 2457	Radiologic Technology 2	3	
RTE 2563	Radiographic Positioning 3	2	Prerequisite: RTE 1513
RTE 2834	Radiographic Clinical 4	5	Prerequisite: RTE 1824
RTE 2844	Radiographic Clinical 5	8	Prerequisite: RTE 2834
RTE 2854	Radiographic Clinical 6	3	Prerequisite: RTE 2844

Miami Dade College

Respiratory Care
Associate in Science | Code: 23046 | 76 credits
CIP (1351090800**)**
Effective Term: Fall 2025 (2257)

The Respiratory Care program prepares the successful graduates for employment in health agencies where they will work with the physician and other professionals in treating patients with respiratory ailments or injuries affecting the respiratory function. Emphasis will be placed on supervised clinical instruction and practice in local health care facilities. Completion of this two-year accredited program enables the graduate to apply for entry into the Examination Process of the N.B.R.C.A grade of "C" or better is required in each course.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	Prerequisite: ENC 1101
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
BSC 2085	Human Anatomy and Physiology 1	3	Corequisite: BSC 2085L
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C - Introduction to Computer Technology & Applications			
SCIENCE REQUIREMENTS (8.00 credits)			
BSC 2085L	Human Anatomy and Physiology 1 Laboratory	1	Corequisite: BSC 2085
BSC 2086	Human Anatomy & Physiology 2	3	Prerequisite: BSC 2085 Corequisite: BSC 2086L
BSC 2086L	Human Anatomy & Physiology 2 Laboratory	1	Corequisite: BSC 2086
CHM 1025	Introductory Chemistry	3	
MAJOR CORE REQUIREMENTS (53.00 Credits)			
RET 1024C	Fundamentals of Respiratory Care	3	Prerequisite: ENC 1101; Corequisite: RET 2274C

RET 1484	Respiratory Care Pathophysiology 1	2	Prerequisite: ENC 1101; Corequisite: RET 1024C
RET 2264	Advanced Modalities and Monitoring	2	Prerequisite: RET 2284; Corequisites: RET 2714, RET 2714L
RET 2274C	Respiratory Care Equipment & Procedures	3	Corequisite: RET 1024C
RET 2275C	Advanced Respiratory Care Equipment and Procedures	3	Prerequisite: RET 2274C
RET 2284	Principles of Mechanical Ventilation	2	Prerequisite: RET 2275C; Corequisite: RET 2284L
RET 2284L	Principles of Mechanical Ventilation Laboratory	2	Corequisite: RET 2284
RET 2350	Respiratory Care Pharmacology	2	Prerequisites: CHM 1025, RET 1484; Corequisites: RET 2503, RET 2275C
RET 2414	Pulmonary Studies	2	Corequisite: RET 2414L
RET 2414L	Pulmonary Studies Laboratory	1	Corequisite: RET 2414
RET 2503	Respiratory Care Pathophysiology 2	3	Prerequisite: RET 1484
RET 2601	Respiratory Care Seminar	2	
RET 2714	Perinatal and Pediatric Respiratory Care	2	Corequisites: RET 2264, RET 2714L
RET 2714L	Perinatal and Pediatric Respiratory Care Laboratory	1	Corequisites: RET 2264, RET 2714
RET 2832	Respiratory Care Clinic 1	2	Prerequisite: RET 2274C
RET 2833	Respiratory Care Clinic 2	5	Prerequisites: RET 1024C, RET 1484, RE 2274C, RET 2350
RET 2834	Respiratory Care Clinic 3	8	Prerequisites: RET 2284, RET 2284L Corequisites: RET 2714, RET 2714L
RET 2835	Respiratory Care Clinic 4	8	Prerequisite: RET 2834 Corequisite: RET 2601

Miami Dade College

Respiratory Care – CRT to RRT
Associate in Science | Code: 23067 | 76 credits
CIP (1351090800**)**
Effective Term: Fall 2025 (2257)

The Respiratory Care CRT to RRT Completion program prepares the practicing Certified Respiratory Therapist (CRT) to acquire the Registered Respiratory Therapist (RRT) credential, by completing the program requirements in order to meet eligibility for the National Board for Respiratory Care (NBRC) RRT examination. The emphasis of the accelerated CRT to RRT completion program is on teaching the didactic, laboratory, and clinical competencies required of a registered respiratory therapist (RRT). CRT to RRT students will be classified as Advanced Placement in the Respiratory Care Program.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
BSC 2085	Human Anatomy and Physiology 1	3	Corequisite: BSC 2085L
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C Introduction to Computer Technology & Applications			
SCIENCE REQUIREMENTS (8.00 Credits)			
BSC 2085L	Human Anatomy and Physiology 1 Laboratory	1	Corequisite: BSC 2085
BSC 2086	Human Anatomy & Physiology 2	3	Prerequisite: BSC 2085; Corequisite: BSC 2086L
BSC 2086L	Human Anatomy & Physiology 2 Laboratory	1	Prerequisite: BSC 2085L; Corequisite: BSC 2086
CHM 1025	Introductory Chemistry*or higher	3	Prerequisite: MAT 1033

MAJOR CORE REQUIREMENTS (53.00 Credits)

RET 2264	Advanced Modalities and Monitoring	2	Prerequisite: RET 2284; Corequisites: RET 2714,
RET 2714L	RET 2284 Principles of Mechanical Ventilation	2	Prerequisite: RET 2275C; Corequisite: RET 2284L
RET 2284L	Principles of Mechanical Ventilation Laboratory	2	Corequisite: RET 2284
RET 2414	Pulmonary Studies	2	Corequisite: RET 2414L
RET 2414L	Pulmonary Studies Laboratory	1	Corequisite: RET 2414
RET 2601	Respiratory Care Seminar	2	Prerequisite: RET 2284; Corequisites: RET 2714, RET 2714L
RET 2714	Perinatal and Pediatric Respiratory Care	2	Corequisites: RET 2264, RET 2714L
RET 2714L	Perinatal and Pediatric Respiratory Care Laboratory	1	Corequisites: RET 2264, RET 2714
RET 2834	Respiratory Care Clinic 3	8	Prerequisite: RET 2284, RET 2284L; Corequisite: RET 2714, RET 2714L
RET 2835	Respiratory Care Clinic 4	8	Prerequisite: RET 2834; Corequisite: RET 2601
RET 9995	Respiratory Care	23	Certified Respiratory Therapist Credential (TMOP 1100: 815732)

Miami Dade College

Sign Language Interpretation
Associate in Science | Code: 23033 | 66 credits
CIP (1713100305**)**
Effective Term: Fall 2025 (2257)

The Sign Language Interpretation program is designed to develop the skills necessary to interpret the communications between deaf or hard of hearing persons and hearing individuals in an accurate and effective manner. Also developed is a practical understanding of aspects of deaf studies and deaf culture and community. Graduates should be able to interpret at a basic level, and to achieve a minimum of Level 1 on the Quality Assurance (QA) Screening of the Florida Registry of Interpreters for the Deaf, which is traditionally required for employment as an interpreter in the state. In addition, the program will provide a foundation, especially with an accompanying Associate in Arts degree, for those persons who wish to pursue advanced degrees in preparation for careers in special education, vocational rehabilitation or other human service fields.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
PHI 2010	Introduction to Philosophy	3	Prerequisite: ENC 1101
MATHEMATICS (3.00 credits)			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
NATURAL SCIENCE (3.00 credits)			
BSC 1005	General Education Biology	3	
EVR 1001	Introduction to Environmental Science	3	
ESC 1000	Introduction to Earth Science	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test			
---OR---			
CGS 1060C	Introduction to Computer Technology & Applications		
MAJOR COURSE REQUIREMENTS (47.00 Credits)			
ASL 1150C	American Sign Language 2	4	Prerequisite: ASL 1140C
ASL 2160C	American Sign Language 3	4	Prerequisite: ASL 1150C
ASL 2200C	American Sign Language 4	4	Prerequisite: ASL 2160C
ASL 2210	ASL Conversational Skills	3	Prerequisite: ASL 1150C
ASL 2220	Receptive Skills Development	3	Prerequisite: ASL 1150C
ASL 2400	Linguistics of American Sign Language	3	Prerequisite: ASL 2160C

ASL 2430	Manual Alphabet Skills Development	3	Prerequisite: ASL 1150C
ASL 2510	Deaf Culture and Community	3	
INT 1000	Interpreting Ethics and Professionalism	3	Prerequisite: ASL 1150C
INT 1202	Sign to Voice Interpreting	3	Prerequisites: ASL 2160C, INT 1000
INT 1240	Voice to Sign Interpreting	3	Prerequisites: ASL 2160C, INT 1000
INT 1400	Educational Interpreting	3	Prerequisite: INT 1000
INT 1480	Interpreting: Special Settings & Populations	3	Prerequisite: INT 1000
INT 1941	Interpreting Internship	5	Prerequisites: INT 1000, INT 1202, INT 1240

ELECTIVES (4.00 Credits)

ASL 1140C	American Sign Language 1	4	
ASL 1906	Directed Independent Studies	1-2	Prerequisite: ASL 1140C
CGS 1060C	Introduction to Computer Technology & Applications	4	
DEP 2000	Human Growth and Development	3	
EDF 1005	Introduction to the Education Profession	3	
EEX 2000	Introduction to Special Education	3	
HUS 1001	Introduction to Human Services	3	
PSY 2012	Introduction to Psychology	3	
SLS 1502	College Study Skills	1-3	
SOP 2002	Social Psychology	3	
SPA 2001	Introduction to Communication Disorders	3	
SPC 1017	Introduction to Communication	3	
TPP 1100	Acting	1 3	

Miami Dade College

Social and Human Services - Addictions Studies
Associate in Science | Code: 25067 | 60 credits
CIP (1451159901**)**
Effective Term: Fall 2025 (2257)

The Social and Human Services program with a specialization in Addiction Studies is designed to prepare students for employment as human services specialists, human services practitioners, chemical dependency practitioners, addiction specialists, mental health and social service practitioners, or to provide supplemental training for persons previously or currently employed in these occupations. The program is also designed to provide most of the general academic and addiction specific requirements ofthe Certification Board for Addiction Professionals of Florida.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
MGF 1131	Mathematics in Context	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
NATURAL SCIENCE (3.00 credits)			
BSC 1005	General Education Biology	3	
EVR 1001	Introduction to Environmental Sciences	3	
AST 1002	Descriptive Astronomy	3	
ESC 1000	General Education Earth Science	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	

COMPUTER COMPETENCY
Test type(s) needed:
Computer Competency Test (CCT)

--- OR ---
CGS 1060C Introduction to Computer Technology & Applications

CORE REQUIREMENTS (18.00 Credits)

HUS 1001	Introduction to Human Services	3	
HUS 1318	Domestic Abuse and Family Violence	3	
HUS 1480	HIV/AIDS and the Substance Abuser	3	Prerequisite: PSB 2442
HUS 2500	Issues and Ethics in Human Services	3	Prerequisite: PSB 2442
HUS 2493	Addiction Counseling Competencies	3	Prerequisite: PSB 2442
PSY 2012	Introduction to Psychology	3	

PROGRAM REQUIREMENTS (24.00 Credits)

HUS 1428	Addiction Treatment Delivery Systems	3	
HUS 1302	Basic Counseling Skills	3	
HUS 1421	Assessment and Treatment Planning in Addictions	3	Prerequisites: HUS 2493, PSB 2442
HUS 1423	Group Counseling in Substance Abuse	3	
HUS 1440	Family Issues in Chemical Dependency	3	
HUS 1475	Addiction Counseling and the law	3	Prerequisite: PSB 2442
HUS 2303	Counseling Techniques	3	
PSB 2442	The Psychology of Addictions	3	

FIELD EXPERIENCE REQUIREMENT (3.00 Credits)

HUS 2820	Field Experience in Human Service	3	Prerequisites: HUS 1011, HUS 1302, HUS 2303

Miami Dade College

Social and Human Services – Generalist
Associate in Science | Code: 25026 | 60 credits
CIP (1451159901**)**
Effective Term: Fall 2025 (2257)

The Generalist Human Services Associate in Science degree prepares the students for employment in thenetwork of programs and agencies which provide a vast array of human needs. These include areas such as childcare, criminal justice, education, health, housing, income maintenance, mental health andretardation, among others. These needs are provided for a variety of settings, such as clinics, hospitals, nursing homes, rehabilitation centers and social agencies.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
MGF 1131	Mathematics in Context	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
NATURAL SCIENCE (3.00 credits)			
BSC 1005	General Education Biology	3	
EVR 1001	Introduction to Environmental Sciences	3	
AST 1002	Descriptive Astronomy	3	
ESC 1000	General Education Earth Science	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
--- OR ---			
CGS 1060C Introduction to Computer Technology & Applications			

CORE REQUIREMENTS (18.00 Credits)

HUS 1001	Introduction to Human Services	3	
HUS 1318	Domestic Abuse and Family Violence	3	
HUS 1480	HIV/AIDS and the Substance Abuser	3	
HUS 2500	Issues & Ethics in Human Services	3	Prerequisites: PSB 2442
PSY 2012	Introduction to Psychology	3	
SOP 2002	Social Psychology	3	

PROGRAM REQUIREMENTS (24.00 Credits)

CLP 2140	Abnormal Psychology	3	Prerequisites: PSY 2012
DEP 2000	Human Growth and Development	3	
HUS 1302	Basic Counseling Skills	3	
HUS 2303	Counseling Techniques	3	
ISS 1120	The Social Environment	3	
PSB 2442	The Psychology of Addiction	3	
SYG 2010	Social Problems	3	
SYG 2430	Marriage and the Family	3	

FIELD EXPERIENCE REQUIREMENT (3.00 Credits)

HUS 2820	Field Experience in Human Service	3	Prerequisites: HUS 1011, HUS 1302, HUS 2303

Miami Dade College

Surgical Technology
Associate in Science | Code: 23077 | 64 credits
CIP (1351090901**)**
Effective Term: Fall 2025 (2257)

The Associate in Science degree in Surgical Technology is designed to educate and prepare graduates with skills required for entry-level employment as a member of the healthcare team. In addition, students will acquire extensive knowledge of legal and ethical responsibilities, anatomy, physiology, pathophysiology, microbiology, aseptic techniques, patient care procedures, surgical technology procedures, patient safety, and use and care of equipment and supplies.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15 Credits Required)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
NATURAL SCIENCE (3.00 credits)			
BSC 2085	Human Anatomy and Physiology 1	3	Corequisite: BSC 2085L
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C Introduction to Computer Technology & Applications			
SCIENCE REQUIREMENTS (5.00 Credits)			
BSC 2085L	Human Anatomy and Physiology 1 Laboratory	1	Corequisite: BSC 2085
BSC 2086	Human Anatomy & Physiology 2	3	Prerequisite: BSC 2085; Corequisite: BSC 2086L
BSC 2086L	Human Anatomy & Physiology 2 Laboratory	1	Prerequisite: BSC 2085, BSC 2085L; Corequisite: BSC 2086

MAJOR CORE REQUIREMENTS (44.00 Credits)

HIM 2472	Medical Terminology	3
STS 1302	Introduction to Surgical Technology	2
STS 1303	Fundamentals of Surgical Technology	3
STS 1304L	Operating Room Techniques Laboratory	3
STS 1307	Surgical Equipment and Instrumentation	3
STS 1308	Perioperative Patient Care Concepts	2
STS 1323	Surgical Procedures I	3
STS 1327L	Principles and Practices of Surgical Technology Laboratory	2
STS 1931	Surgical Technology Special Topics Seminar	3
STS 2179	Surgical Biomedical Fundamentals	3
STS 2324	Surgical Procedures II	3
STS 2340	Surgical Pharmacology	3
STS 2360	Professional Skills for the Surgical Technologist	2
STS 2944	Surgical Clinical I	3
STS 2945	Surgical Clinical II 3 STS 2946 Surgical Clinical III	3

Miami Dade College

Translation-Interpretation Studies
Associate in Science | Code: 24050 | 60 credits
CIP (1713100304**)**
Effective Term: Fall 2025 (2257)

This program is designed to provide bilingual students with the knowledge and skills necessary to carry out the work associated with areas of translation (written) and interpretation (oral) in the workplace. Graduates are prepared for positions as court translators/ interpreters, in-house translators/interpreters for the private sector (including translation/interpretation agencies), translators for government agencies, hospital interpreters/ translators, freelance translators/interpreters and telephone interpreters. Graduates will have the basic foundation to establish their own translation/interpretation business.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A- 10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
ARH 1000	Art Appreciation	3	
HUM 1020	Humanities	3	
LIT 2000	Introduction to Literature	3	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy	3	Prerequisite: ENC 1101
THE 2000	Theatre Appreciation	3	
MATHEMATICS (3.00 credits)			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
NATURAL SCIENCE (3.00 credits)			
AST 1002	Descriptive Anatomy	3	
BSC 1005	General Education Biology	3	
CHM 1020	General Education Chemistry	3	
ESC 1000	General Education Earth Science	3	
EVR 1001	Introduction to Environmental Sciences	3	
GLY 1010	Physical Geology	3	
OCE 1001	Introduction to Oceanography	3	
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	

COMPUTER COMPETENCY
Test type(s) needed:
Computer Competency Test (CCT)
---OR---
CGS 1060C Introduction to Computer Technology & Applications

MAJOR COURSE REQUIREMENTS (45.00 credits)

Group A: Must take 39.00 credits

FOT 2220	Localization and Project Management	3	Prerequisites: FOT 2802, FOT 2825
FOT 2802	Introduction to Translation	3	
FOT 2821	Introduction to Interpretation	3	
FOT 2822	Court Interpreting Skills	3	Prerequisite: FOT 2821
FOT 2823	Consecutive Interpretation	3	Prerequisite: FOT 2821
FOT 2824	Simultaneous Interpretation Strategies	3	Prerequisite: FOT 2821
FOT 2825	Computer Assisted Translation 1	3	Prerequisite: FOT 2802
FOT 2826	Legal Translation	3	Prerequisite: FOT 2802
FOT 2827	Medical Translation	3	Prerequisite: FOT 2802
FOT 2828	Medical Interpretation	3	Prerequisite: FOT 2801
FOT 2829	Financial and Business Translation	3	Prerequisite: FOT 2802
LIN 2011	Introduction to Linguistics	3	
SPT 2842	Contrastive Analysis Spanish/English	3	

Group B: Must take 6.00 credits

CGS 1060C	Introduction to Computer Technology & Application	4	
FOT 2701	Simultaneous Conference Interpretation	3	Prerequisite: FOT 2824
FOT 2832	Court Interpretation Skills II	3	Prerequisite: FOT 2822

Miami Dade College

Transportation and Logistics
Associate in Science | Code: 28000 | 64 credits
CIP (1652020301**)**
Effective Term: Fall 2025 (2257)

This Transportation and Logistics A.S. degree program provides core courses in transportation policy, law, safety, security, management and marketing, and an integrated understanding of the intermodal relationship between the various modes of transportation. In addition, college credit certificates will be offered in Intermodal Freight Transportation and International Freight Transportation.

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 Credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 Credits)			
HUM 1020	Humanities	3	
MATHEMATICS (3.00 Credits)			
MAC 1105	College Algebra	3	Prerequisite: MAT 1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033, MGF 1131
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
NATURAL SCIENCE (3.00 credits)			
PHY 1020	General Education Physics	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Competency Test (CCT)			
---OR---			
CGS 1060C Introduction to Computer Technology & Applications			
MAJOR CORE REQUIREMENTS (23.00 Credits)			
ACG 2021	Financial Accounting	3	Corequisite: ACG 2021L
ACG 2021L	Financial Accounting Lab	1	Corequisite: ACG 2021
ACG 2071	Managerial Accounting	3	Prerequisite: ACG 2021 Corequisite: ACG 2071L
ACG 2071L	Managerial Accounting Lab	1	Prerequisite: ACG 2021 and ACG 2021L Corequisite: ACG 2071
ECO 2023	Principles of Economics (MICRO)	3	Prerequisite: MAT1033
NOTE: Students must seek advisement for proper mathematics course from discipline chairperson.			
MAN 2021	Principles of Management	3	
TRA 1154	Introduction to Supply Chain Management	3	
TRA 2010	Introduction to Transportation and Logistics	3	
QMB 2100	Basic Business Statistics	3	Prerequisite: Acceptable score on the Algebra Placement test or equivalent

PROGRAM CORE REQUIREMENTS (21.00 Credits)

Group A (18.00 credits)

AVM 2120	Air Cargo Operations	3	
DSC 2242	Transportation and Border Security	3	
TRA 2156	Operations Management for Transportation	3	Prerequisite: MAN 2021
TRA 2321	Transportation Public Policy, Law and Regulations	3	Prerequisite: TRA 2010
TRA 2402	Intermodal Transportation Operations and Project Management	3	Prerequisites: AVM 2120, TRA 2010 Corequisites: TRA 1410, TRA 1420, TRA 1430
TRA 2702	International Logistics and Transportation	3	Prerequisites: TRA 2010, TRA 2321

---AND---

Group B (3.00 credits)

TRA 1410	Introduction to Rail Freight Operations	3	Corequisites: TRA1420, TRA 1430
TRA 1420	Introduction to Trucking Operations	3	Corequisites: TRA1410, TRA 1430
TRA 1430	Introduction to Port Freight Operations	3	Corequisites: TRA 1410, TRA 1420

CAPSTONE COURSE REQUIREMENT (1.00 Credit)

TRA 2945	Transportation & Logistics Capstone I	1	Prerequisite: Departmental Approval & Completion of the Program Core Requirements

ELECTIVES (4.00 Credits)

AVM 1062	Aviation Career Planning	1	
AVM 1949	Co-Op Work Experience 1: AVI	3	Prerequisite: Departmental Permission
CGS 1060C	Introduction to Computer Technology & Applications	4	
MAT 1033	Intermediate Algebra	3	Prerequisites: MAT0022C, or MAT0028, or MAT0057 or by placement score, or eligible exemption

ACG*	FIN1*	HFT*	MAR*	QMB*	TRA
BUL*	FIN2*	MAN1*	OST*	SBM*	
ECO*	GEB*	MAN2*	PUR*	TAX*	

Miami Dade College

Veterinary Technology
Associate in Science | Code: 23065 | 73 credits
CIP (1301830100**)**
Effective Term: Fall 2025 (2257)

The Veterinary Technology program prepares students to assist veterinarians in their daily practice, working with all types of animals and in various disciplines within the realm of veterinary medicine. Tasks include providing total nursing care to the sick or injured patient, handling and restraint, assisting during examinations and surgical procedures, performing dental hygiene and radiographic exams and collection and analysis of diagnostic specimens. Graduates are eligible to apply to take the Veterinary Technician National Examination (VTNE) and the Florida Practical Exam (FPE).

Course	Course Title	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS (15.00 Credits)			
COMMUNICATIONS (3.00 credits)			
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
HUMANITIES (3.00 credits)			
HUM 1020	Humanities	3	
MATHEMATICS (3.00 credits)			
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
NATURAL SCIENCE (3.00 credits)			
BSC 1005	General Education Biology	3	
SOCIAL SCIENCE (3.00 credits)			
AMH 2010	History of the US to 1877	3	
AMH 2020	History of the US since 1877	3	
POS 2041	American Federal Government	3	
COMPUTER COMPETENCY			
Test type(s) needed:			
Computer Skills Placement (CSP)			
---OR---			
CGS 1060C	Introduction to Computer Technology & Application		
SCIENCE REQUIREMENT (1.00 Credit)			
BSC 1005L	General Education Biology Laboratory	1	
FIRST TERM IN PROGRAM (8.00 credits)			
ATE 1110	Animal Anatomy	3	Prerequisites: BSC 1005, BSC 1005L, ENC 1101; Corequisites: ATE 1110L, ATE 1211, ATE 1650L
ATE 1110L	Animal Anatomy & Physiology Lab	1	Corequisites: ATE 1110, ATE 1211, ATE 1650L
ATE 1211	Animal Physiology	3	Corequisites: ATE 1110, ATE 110L, ATE 1650L

ATE 1650L	Introduction to Clinical Practice 1	1	Corequisites: ATE 1110, ATE 1110L, ATE 1211

SECOND TERM IN PROGRAM (11.00 credits)

ATE 2636	Large Animal Clinic & Nursing Skills	2	Prerequisites: ATE 1110, ATE 1211 Corequisite: ATE 2636L
ATE 2636L	Large Animal Clinic & Nursing Skills Laboratory	1	Corequisite: ATE 2636
ATE 2638	Animal Lab Procedures 1	3	Prerequisites: ATE 1110, ATE 1211 Corequisite: ATE 2638L
ATE 2638L	Animal Lab Procedures 1 Laboratory	2	Corequisite: ATE 2638
ATE 2652L	Introduction to Clinical Practice 2	1	Prerequisites: ATE 1110, ATE 1650L
ATE 2671C	Lab Animal Medicine	2	

THIRD TERM IN PROGRAM (9.00 credits)

ATE 1630	Pharmacology for Veterinary Technicians	2	Prerequisites: ATE 1110, ATE 1110L, ATE 1211
ATE 2639	Animal Lab Procedures 2	3	Prerequisites: ATE 2638, ATE 2638L Corequisite: ATE 2639L
ATE 2639L	Animal Lab Procedures 2 Laboratory	2	Prerequisites: ATE 2638, ATE 2638L Corequisite: ATE 2639
ATE 2722C	Avian & Exotic Pet Medicine	2	

FOURTH TERM IN PROGRAM (12.00 credits)

ATE 1940	Veterinary Clinical Experience 1	3	Prerequisites: ATE 1110, ATE 1110L, ATE 1211, ATE 1650L, ATE 2638, ATE 2638L, ATE 2639, ATE 2639L, ATE 2652L
ATE 2611	Animal Medicine 1	3	Prerequisites: ATE 1110, ATE 1211; Corequisites: ATE 2661, ATE 2631, ATE 2655L
ATE 2631	Small Animal Nursing 1	3	Prerequisites: ATE 1110, ATE 1211; Corequisites: ATE 2611, ATE 2655L
ATE 2655L	Animal Nursing & Medicine Laboratory 1	2	Prerequisites: ATE 1630, ATE 2639, ATE 2639L Corequisite: ATE 2611
ATE 2661	Large Animal Diseases	1	Prerequisites: ATE 1110, ATE 2636, ATE 2636L; Corequisite: ATE 2611

FIFTH TERM IN PROGRAM (13.00 credits)

ATE 1941	Veterinary Clinical Experience 2	3	Prerequisites: ATE 1940, ATE 2611, ATE 2652L, ATE 2665L
ATE 2050L	Animal Nursing & Medicine Laboratory 2	2	Prerequisites: ATE 1110, ATE 2631, ATE 2655L; Corequisite: ATE 2612
ATE 2612	Small Animal Nursing 2	3	Prerequisites: ATE 1110, ATE 2611, ATE 2631, ATE 2655L; Corequisite: ATE 2050L
ATE 2614	Animal Medicine 2	3	Prerequisites: ATE 1110, ATE 2611
ATE 2710	Animal Emergency Medicine	2	Prerequisites: ATE 1110, ATE 1211; Corequisites: ATE 2611, ATE 2631, ATE 2655L

SIXTH TERM IN PROGRAM (4.00 credits)

ATE 2942	Veterinary Clinical Experience 3	4	Prerequisite: ATE 1941

ADVANCED TECHNICAL CERTIFICATES (ATC)

The Advanced Technical Certificate (ATC) is available to students who have been awarded an Associate in Science degree or higher and wish to upgrade their skills. Students must successfully complete a prescribed set of courses at the advanced level in order to be awarded the ATC.

STUDENTS SHOULD CHECK THEIR INDIVIDUALIZED DEGREE AUDIT REPORT TO DETERMINE THE SPECIFIC GRADUATION POLICIES IN EFFECT. REQUIREMENTS MAY CHANGE BASED ON THE YEAR AND TERM A STUDENT ENTERS MIAMI DADE COLLEGE. THE DEGREE AUDIT REPORT INCLUDES CURRENT GRADUATION REQUIREMENTS. THE FINAL RESPONSIBILITY FOR MEETING GRADUATION REQUIREMENTS STATED IN THE DEGREE AUDIT REPORT RESTS WITH THE STUDENT.

Biotechnology

Advanced Technical Certificate | Code: C6028 | 33 credits

A fast-track certification program in Biotechnology is available for students with bachelor's degrees, or having at least an associate degree and a strong background in college-level math and science courses. This background, combined with selected courses in the biotechnology program, will provide students with the necessary skills to seek employment in Biotechnology and related industries.

Biotechnology - Bioinformatics

Advanced Technical Certificate | Code: C6029 | 33 credits

A fast-track certification program in Biotechnology is available for students with bachelor's degrees, or having at least an associate degree and a strong background in college-level math and science courses. This background, combined with selected courses in the biotechnology program, will provide students with the necessary skills to seek employment in Biotechnology and related industries.

Biotechnology - Chemical Technology

Advanced Technical Certificate | Code: C6030 | 33 credits

A fast-track certification program in Biotechnology is available for students with bachelor's degrees, or having at least an associate degree and a strong background in college-level math and science courses. This background, combined with selected courses in the biotechnology program, will provide students with the necessary skills to seek employment in Biotechnology and related industries.

Certified Flight Instructor

Advanced Technical Certificate | Code: C6027 | 13 credits

The Certified Flight Instructor (CFI) Advanced Technical Certificate program includes theory, flight and lab instruction. The program meets FAA requirements for a CFI. In addition to the FAA requirements, each student will learn to develop lesson plans and learn how to communicate effectively using a variety of instructional materials and feedback techniques. Students wishing to enroll in this program must possess a Commercial Pilot's License. Upon successful completion of this program, students will be able to demonstrate knowledge of private and commercial pilot certification; fundamentals of instruction in a single engine airplane; ability to recognize, analyze and provide correction of common student errors; and knowledge of the responsibilities of Certified Flight Instructors (CFI). Contact the Aviation Department at 305-237-5900 for information and advisement.

Compensation & Benefits

Advanced Technical Certificate | Code: C6002 | 18 credits

The Advanced Technical Certificate in Compensation and Benefits prepares students to design and manage compensation and benefits systems to attract, motivate and retain various employee groups. The compensation and benefits managers plan, direct, and coordinate the reward functions of an organization.

Computed Tomography (CT)

Advanced Technical Certificate | Code: C6037 | 9 credits

The Advanced Technical Certificate in Computed Tomography is designed to educate and prepare individuals who currently hold a Radiologic Technologist license in Nuclear Medicine, Radiography or Radiation Therapy with skills required to become Computed Tomography (CT) technologist. Students will acquire knowledge of CT technology to include history and development, equipment, terminology, patient preparation and care, principles of image formation, acquisition, and production. Graduates will acquire necessary skills and content in preparation for the American Registry of Radiologic Technologists (ARRT) certification examination in Computed Tomography.

Hospitality Management

Advanced Technical Certificate | Code: C6000 | 18 credits

The Advanced Technical Certificate (ATC) in Hospitality Management will assist new and experienced hospitality industry personnel upgrade their management skills to increase employment opportunities. This certificate focuses on augmenting the skills needed for restaurant management, bar and beverage management, hotel and lodging management, food service management, business supervision and management, accounting and revenue.

Human Resource Management

Advanced Technical Certificate | Code: C6001 | 24 credits

The Advanced Technical Certificate (ATC) in Human Resources Management will assist new and experienced human resource professionals upgrade their knowledge and skills in order increase their employment opportunities. The student will be able to plan, direct, and coordinate the recruiting, interviewing, hiring and retaining employees.

Magnetic Resonance Imaging (MRI)

Advanced Technical Certificate | Code: C6036 | 15 credits

The MRI Certificate Program prepares American Registry of Radiologic Technologists (ARRT) or American Registry for Diagnostic Medical Sonography (ARDMS) Licensed Radiologic Technologists, Nuclear Medicine Technologists, Radiation Therapy and Ultrasound Technologists to function as an MRI Technologist. This program provides intensive didactic and clinical training in the medical specialty of Magnetic Resonance imaging. The MRI technologist performs imaging procedures using magnetism and radio frequency to visualize internal organs such as the heart, abdominal organs, and brain. It may also be used to visualize bony structures such as the spine, skull, and extremities. Graduates will be eligible to take the MRI Registry Exam offered by the American Registry of Radiologic Technologists.

Procurement Management

Advanced Technical Certificate | Code: C6003 | 18 credits

Supply chain management is an interdisciplinary field that emphasizes cross-functional integration of diverse business functions, facilities, and activities and seeks to manage those activities to enhance a company's competitive advantage. The Advanced Technical Certificate (ATC) in Procurement Management is designed to designed for current and pre-professionals interested in working in purchasing, project management, contracting, and supply chain management.

Project Management

Advanced Technical Certificate | Code: C6004 | 18 credits

Supply chain management is an interdisciplinary field that emphasizes cross-functional integration of diverse business functions, facilities, and activities and seeks to manage those activities to enhance a company's competitive advantage. The Advanced Technical Certificate in Project Management will prepare students to plan, coordinate, and execute the supply chain-related projects within an organization. It emphasizes a systematic approach to planning, scheduling, control, design, evaluation, and leadership of projects in an organization.

Supply Chain Analytics

Advanced Technical Certificate | Code: C6005 | 18 credits

Supply chain management is an interdisciplinary field that emphasizes cross-functional integration of diverse business functions, facilities, and activities and seeks to manage those activities to enhance a company's competitive advantage. The Advanced Technical Certificate in Supply Chain Analytics is designed to provide knowledge of the supply chain while exploring the risks, operations, logistics, economics, regulatory issues, change management, forecasting, resource allocation, production planning, inventory management, customer delivery, after-sales support and service and other functions basic to business.

Advanced Technical Certificates (ATC) Program Sheets

Miami Dade College

Biotechnology
Advanced Technical Certificate | Code: C6028 | 33 Credits
CIP (0341010166**)**
Effective Term: Fall 2007 (2077)

A fast-track certification program in Biotechnology is available for students with bachelor's degrees, or having at least an associate degree and a strong background in college-level math and science courses. This background, combined with selected courses in the biotechnology program, will provide students with the necessary skills to seek employment in Biotechnology and related industries.

Course	Course Title	Credits	Pre-/Co-Requisites
Core Requirements (13.00 Credits)			
BSC 2426	Biotechnology Methods and Applications 1	3	
BSC 2426L	Biotechnology Methods and Applications 1 Laboratory	2	
BSC 2427	Biotechnology Methods and Applications 2	3	
BSC 2427L	Biotechnology Methods and Applications 2 Laboratory	2	
BSC 2943L	Bioscience Internship	3 - 6	
Program Requirements (20.00 Credits)			
ETI 1162	Concepts of Lean and Six Sigma	3	
EGS 1010	Applied Research Methods	1-3	
CHM 2200	Survey of Organic Chemistry	3	
CHM 2200L	Survey of Organic Chemistry Laboratory	1	
ETI 1040	Introduction to Bioscience Manufacturing	3	
ETI 1172	Introduction to Quality Assurance	3	
MCB 2010	Microbiology	3	
MCB 2010L	Microbiology Laboratory	2	

Miami Dade College

Biotechnology - Bioinformatics
Advanced Technical Certificate | Code: C6029 | 33 Credits
CIP (0341010166**)**
Effective Term: Fall 2009 (2097)

A fast-track certification program in Biotechnology is available for students with bachelor's degrees, or having at least an associate degree and a strong background in college-level math and science courses. This background, combined with selected courses in the biotechnology program, will provide students with the necessary skills to seek employment in Biotechnology and related industries.

Course	Course Title	Credits	Pre-/Co-Requisites
Core Requirements (13 Credits)			
BSC 2426	Biotechnology Methods and Applications 1	3	
BSC 2426L	Biotechnology methods & applications 1 laboratory	2	
BSC 2427	Biotechnology Methods and Applications 2	3	
BSC 2427L	Biotechnology Methods and Applications 2 laboratory	2	
BSC 2943L	Bioscience Internship	3 - 6	
Program Requirements (20 Credits)			
CGS 1540C	Database Concepts Design	4	
CGS 1700	Introduction to Operating Systems	4	
CIS 1321	Introduction to Systems Analysis and Design	4	
CIS 1531	Introduction to Secure Scripting	4	
COP 1334	Introduction to C++ Programming	4	

Miami Dade College

Biotechnology - Chemical Technology
Advanced Technical Certificate | Code: C6030 | 33 credits
CIP (0341010166**)**
Effective Term: Fall 2007 (2077)

A fast-track certification program in Biotechnology is available for students with bachelor's degrees, or having at least an associate degree and a strong background in college-level math and science courses. This background, combined with selected courses in the biotechnology program, will provide students with the necessary skills to seek employment in Biotechnology and related industries.

Course	Course Title	Credits	Pre-/Co-Requisites
Core Requirements (13 Credits)			
BSC 2426	Biotechnology Methods and Applications 1	3	
BSC 2426L	Biotechnology Methods & Applications 1 Laboratory	2	
BSC 2427	Biotechnology Methods and Applications 2	3	
BSC 2427L	Biotechnology Methods & Applications 2 Laboratory	2	
BSC 2943L	Bioscience Internship	3 - 6	
Program Requirements (20 Credits)			
CHM 1046	General Chemistry and Qualitative Analysis	3	
CHM 1046L	General Chemistry & Qualitative Analysis Lab	2	
CHM 2200	Survey of Organic Chemistry	3	
CHM 2200L	Survey of Organic Chemistry Laboratory	1	
CAP 1760	Introduction to Analytics	4	
CGS 1060C	Introduction to Computer Technology & Applications	4	
ETI 1172	Introduction to Quality Assurance	3	

Miami Dade College

Certified Flight Instructor
Advanced Technical Certificate | Code: C6027 | 13 Credits
CIP (0649010266**)**
Effective Term: Fall 2017 (2177)

The Certified Flight Instructor (CFI) Advanced Technical Certificate program includes theory, flight and lab instruction. The program meets FAA requirements for a CFI. In addition to the FAA requirements, each student will learn to develop lesson plans an and learn how to communicate effectively using a variety of instructional materials and feedback techniques. Students wishing to enroll in this program must possess a Commercial Pilot's License. Upon successful completion of this program, students will be able to demonstrate knowledge of private and commercial pilot certification; fundamentals of instruction in a single engine airplane; ability to recognize, analyze and provide correction of common student errors; and knowledge of the responsibilities of Certified Flight Instructors (CFI). Contact the Aviation Department at 305-237-5900 for information and advisement.

Course	Course Title	Credits	Pre-/Co-Requisites
General Education Requirements			
ATF 2501	Flight Instructor-Flight Training	3	Prerequisite: ATF 2300 Corequisites: ATT 2131, ATF 2501L
ATF 2501L	Flight Instructor-Laboratory	1	Prerequisite: ATF 2300 Corequisites: ATT 2131, ATF 2501
ATT 2131	Flight Instructor Theory	3	Prerequisite: ATF 2300 Corequisites: ATF 2501, ATF 2501L
AVM 1949	Co-op Work Experience 1: AVI	3	Prerequisite: 2.0 minimum GPA, approval of Co-op Program Director, minimum of 6 credits in field or work approved experience.
AVM 2949	Co-op Work Experience 2: AVI	3	Prerequisite: 2.0 minimum GPA, approval of Co-op Program Director, completion of AVM 1949

Miami Dade College

Compensation and Benefits
Advanced Technical Certificate | Code: C6002 | 18 Credits
CIP (0552020166**)**
Effective Term: Fall 2020 (2207)

The Advanced Technical Certificate in Compensation and Benefits prepares students to design and manage compensation and benefits systems to attract, motivate and retain various employee groups. The compensation and benefits managers plan, direct, and coordinate the reward functions of an organization.

Course	Course Title	Credits	Pre-/Co-Requisites
Major Course Requirements			
MAN 3025	Organizational Management	3	
MAN 3301	Human Resources Management	3	
MAN 4330	Compensation Management	3	Prerequisites: MAN 3025 and MAN 3301
MAN 4335	Employee Benefit Planning	3	Prerequisites: MAN 3025 and MAN 3301
MAN 4361	Organizational Staffing	3	Prerequisites: MAN 3025 and MAN 3301
MAN 4402	Employment Law and Regulation	3	Prerequisites: MAN 3025 and MAN 3301

Miami Dade College

Computed Tomography
Advanced Technical Certificate | Code: C6037 | 9 Credits
CIP (0351091166**)**
Effective Term: Fall 2023 (2237)

The Advanced Technical Certificate in Computed Tomography is designed to educate and prepare individuals who currently hold a Radiologic Technologist license in Nuclear Medicine, Radiography or Radiation Therapy with skills required to become Computed Tomography (CT) technologist. Students will acquire knowledge of CT technology to include history and development, equipment, terminology, patient preparation and care, principles of image formation, acquisition, and production. Graduates will acquire necessary skills and content in preparation for the American Registry of Radiologic Technologists (ARRT) certification examination in Computed Tomography.

Course	Course Title	Credits	Pre-/Co-Requisites
Major Core Requirements			
RTE 2571	Principles of Computed Tomography	3	Corequisite: RTE 2762
RTE 2762	Cross Sectional Anatomy	3	
RTE 2940C	Computed Tomography Clinical Education	3	Prerequisites: RTE 2571, RTE 2762

Miami Dade College

Hospitality Management
Advanced Technical Certificate | Code: C6000 | 18 credits
CIP (0252090166**)**
Effective Term: Fall 2020 (2207)

The Advanced Technical Certificate (ATC) in Hospitality Management will assist new and experienced hospitality industry personnel upgrade their management skills to increase employment opportunities. This certificate focuses on enhancing the skills needed for restaurant management, bar and beverage management, hotel and lodging management, food service management, business supervision and management, accounting and revenue management, and hospitality industry policies and regulations.

Course	Course Title	Credits	Pre-/Co-Requisites
Major Course Requirements			
HFT 3263	Restaurant Management	3	
HFT 3603	Hospitality Law	3	
HFT 4064	Bar and Beverage Management	3	
HFT 4253	Hotel Management	3	
HFT 4809	Food Service Management	3	
HFT 4468	Revenue Management in the Hospitality Industry	3	

Miami Dade College

Human Resources Management
Advanced Technical Certificate | Code: C6001 | 24 Credits
CIP (0552020166**)**
Effective Term: Fall 2020 (2207)

The Advanced Technical Certificate (ATC) in Human Resources Management will assist new and experienced human resource professionals upgrade their knowledge and skills in order increase their employment opportunities. The student will be able to plan, direct, and coordinate the recruiting, interviewing, hiring and retaining employees.

Course	Course Title	Credits	Pre-/Co-Requisites
Major Course Requirements (24 Credits)			
MAN 3025	Organizational Management	3	
MAN 3301	Human Resources Management	3	
MAN 3322	Human Resources Information Systems	3	Prerequisites: MAN 3025, MAN 3301
MAN 4330	Compensation Management	3	Prerequisites: MAN 3025, MAN 3301
MAN 4335	Employee Benefit Planning	3	Prerequisites: MAN 3025, MAN 3301
MAN 4352	Effective Employee Training	3	Prerequisites: MAN 3025, MAN 3301
MAN 4361	Organizational Staffing	3	Prerequisites: MAN 3025, MAN 3301
MAN 4402	Employment Law and Regulation	3	Prerequisites: MAN 3025, MAN 3301

Miami Dade College

Magnetic Resonance Imaging
Advanced Technical Certificate | Code: C6036 | 15 Credits
CIP (0351091066**)**
Effective Term: Fall 2023 (2237)

The MRI Certificate Program prepares American Registry of Radiologic Technologists (ARRT) or American Registry for Diagnostic Medical Sonography (ARDMS) Licensed Radiologic Technologists, Nuclear Medicine Technologists, Radiation Therapy and Ultrasound Technologists to function as an MRI Technologist. This program provides intensive didactic and clinical training in the medical specialty of Magnetic Resonance imaging. The MRI technologist performs imaging procedures using magnetism and radio frequency to visualize internal organs such as the heart, abdominal organs, and brain. It may also be used to visualize bony structures such as the spine, skull, and extremities. Graduates will be eligible to take the MRI Registry Exam offered by the American Registry of Radiologic Technologists.

Course	Course Title	Credits	Pre-/Co-Requisites
Major Core Requirements			
RTE 2762	Cross Sectional Anatomy	3	
RTE 2575	MRI Principles and MRI Safety	3	Corequisites: RTE 2762, RTE 2576
RTE 2576	MRI Procedures and Patient Care	3	Corequisites: RTE 2762, RTE 2575
RTE 2577C	Magnetic Resonance Imaging (MRI) Practicum	6	Prerequisites: RTE 2762, RTE 2575, RTE 2576

Miami Dade College

Procurement Management
Advanced Technical Certificate | Code: C6003 | 18 Credits
CIP (0652020967**)**
Effective Term: Fall 2024 (2247)

Supply chain management is an interdisciplinary field that emphasizes cross-functional integration of diverse business functions, facilities, and activities and seeks to manage those activities to enhance a company's competitive advantage. The Advanced Technical Certificate (ATC) in Procurement Management is designed to designed for current and pre-professionals interested in working in purchasing, project management, contracting, and supply chain management.

Course	Course Title	Credits	Pre-/Co-Requisites
Major Course Requirements			
MAN 3562	Purchasing, Inventory and Warehouse Management	3	
MAN 3577	Procurement for Major Projects	3	
MAN 3578	Global Procurement Management	3	
MAN 4570	Purchasing for Industry	3	
MAN 3506	Operations Management	3	Prerequisite: QMB 2100 or STA 2023
QMB 2100	Basic Business Statistics	3	
--OR--			
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

Miami Dade College

Project Management
Advanced Technical Certificate | Code: C6004 | 18 Credits
CIP (0652020968**)**
Effective Term: Fall 2024 (2247)

Supply chain management is an interdisciplinary field that emphasizes cross-functional integration of diverse business functions, facilities, and activities and seeks to manage those activities to enhance a company's competitive advantage. The Advanced Technical Certificate in Project Management will prepare students to plan, coordinate, and execute the supply chain-related projects within an organization. It emphasizes a systematic approach to planning, scheduling, control, design, evaluation, and leadership of projects in an organization.

Course	Course Title	Credits	Pre-/Co-Requisites
Major Course Requirements			
MAN 3583	Project Management	3	
MAN 3731	Assessing and Managing Project Risk	3	
MAN 3888	Project Leadership	3	
MAN 4887	Project Planning and Control Systems for Supply Chain Management	3	
MAN 3506	Operations Management	3	Prerequisite: QMB 2100 or STA 2023
QMB 2100	Basic Business Statistics	3	
--OR--			
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

Miami Dade College

Supply Chain Analytics
Advanced Technical Certificate | Code: C6005 | 18 Credits
CIP (0652020366**)**
Effective Term: Fall 2024 (2247)

Supply chain management is an interdisciplinary field that emphasizes cross-functional integration of diverse business functions, facilities, and activities and seeks to manage those activities to enhance a company's competitive advantage. The Advanced Technical Certificate in Supply Chain Analytics is designed to provide knowledge of the supply chain while exploring the risks, operations, logistics, economics, regulatory issues, change management, forecasting, resource allocation, production planning, inventory management, customer delivery, after-sales support and service and other functions basic to business.

Course	Course Title	Credits	Pre-/Co-Requisites
Major Course Requirements			
MAN 4523	Production Information Systems	3	
MAN 4719	Challenges in the Digital Supply Chain	3	Prerequisites: MAN 3506, QMB 2100 or STA 2023
MAN 4552	Supply Chain Analytics and Decision Making	3	
MAN 4732	Business Intelligence for Supply Chain	3	
MAN 3506	Operations Management	3	Prerequisite: QMB 2100 or STA 2023
QMB 2100	Basic Business Statistics	3	
--OR--			
STA 2023	Statistical Methods	3	Prerequisite: MAT 1033 or MGF 1131

COLLEGE CREDIT CERTIFICATES (CCC)

College Credit Certificate (CCC) programs are subsets of selected Associate in Science/Associate of Applied Science degrees. The CCC meets the Florida Department of Education Certified College Credit program requirements and the student receives an institutional College Credit Certificate upon completion of the program, and the college credits granted in these programs will apply toward the related Associate in Science degree. Students may earn more than one CCC, provided the certificates do not share the same classification of instructional program (CIP) code.

Health Science certificates are offered at the Medical Campus. Students interested in any of the Health Science certificates are encouraged to consult advisors in the New Student Center to receive the most current information regarding program admission.

STUDENTS SHOULD CHECK THEIR INDIVIDUALIZED DEGREE AUDIT REPORT TO DETERMINE THE SPECIFIC GRADUATION POLICIES IN EFFECT. REQUIREMENTS MAY CHANGE BASED ON THE YEAR AND TERM A STUDENT ENTERS MIAMI DADE COLLEGE. THE DEGREE AUDIT REPORT INCLUDES CURRENT GRADUATION REQUIREMENTS. THE FINAL RESPONSIBILITY FOR MEETING GRADUATION REQUIREMENTS STATED IN THE DEGREE AUDIT REPORT RESTS WITH THE STUDENT.

Accounting and Budgeting

College Credit Certificate | Code: 65075 | 18 credits

The College Credit Certificate in Accounting & Budgeting will prepare students to compute, classify, and record numerical data to keep financial records complete. Students will also be prepared to check the accuracy of figures, calculations, and postings pertaining to business transactions recorded by other workers.

Accounting Technology Management

College Credit Certificate | Code: 65077 | 27 credits

The Accounting Applications College Credit Certificate program is designed to prepare students for employment as accounting clerks, data processing clerks, junior accountants and assistant accountants, or to provide supplemental training for persons previously or currently employed in these occupations. The program prepares individuals in the principles, procedures and theories of organizing and maintaining business and financial records, and the preparation of accompanying financial reports.

Addiction Studies

College Credit Certificate | Code: 65078 | 24 credits

The Human Services program with a specialization in Addiction Studies is designed to prepare students for employment as human services specialists, human services practitioners, chemical dependency practitioners, addiction specialists, mental health and social service practitioners, or to provide supplemental training for persons previously or currently employed in these occupations. The program is also designed to provide most of the general academic and addiction specific requirements of the Certification Board for Addiction Professionals of Florida.

Air Cargo Management

College Credit Certificate | Code: 66030 | 16 credits

The Air Cargo Management College Credit Certificate program is designed to give students the skills required to gain employment as an air cargo agent. The program can be completed in one or two semesters with classes offered during the day or evening hours. All of the credits earned can be applied towards an A.S. degree in Aviation Administration. Contact the Aviation Department at 305-237-5950 for information and advisement.

Airline Maintenance Procedures and Records Management

College Credit Certificate | Code: 63018 | 18 credits

The College Credit Certificate (CCC) in Airline Maintenance Procedures and Records Management will fill a growing need to train personnel in how to organize, review and classify aircraft records to comply with FAA regulations, as well as successfully manage records at aircraft manufacturers, airlines and maintenance repair operators. Students will receive a wide-range of classroom and hands-on training that will provide the student with the education and knowledge to successfully manage the aircraft records department in an aviation company.

Airline/Aviation Management

College Credit Certificate | Code: 63012 | 16 credits

The Airline/Aviation Management College Credit Certificate program will provide the student with aviation management skills in an accelerated time frame. These include areas such as airline/aviation industry knowledge, management skills, marketing, law and operations. Students will learn how to take industry concepts and apply them both individually and as a team. They will be able to gain insight into the actual issues involved in running an airline at both the micro and macro levels, from a leadership perspective. They will also acquire up-to-date knowledge about airline/aviation technologies and law, and the latest management concepts and practical application of theories to real life aviation scenarios. Contact the Aviation Department at 305-237-5950 for information and advisement.

Airport Management

College Credit Certificate | Code: 63017 | 16 credits

The Airport Management College credit certificate program provides the student with the skills required to advance to management positions at airports and/or airline terminal opera tions. Students will understand the cost centers, design processes and financial considerations required to be an effective manager in the aviation industry. Contact the Aviation Department at 305-237- 5950 for information and advisement.

American Sign Language
College Credit Certificate | Code: 64053 | 22 credits

The American Sign Language College Credit Certificate program equips students with basic American Sign Language skills to communicate with Deaf and Hard-of-Hearing individuals using expressive fingerspelling, signing, and conversational behaviors. Learning basic American Sign Language and understanding Deaf Culture benefits all students as it diversifies their communications skills, particularly those planning to enter or are currently employed in the highly competitive human services and customer relations job markets. While this program does not prepare students to become interpreters, students who earn this certificate may choose to continue their studies in the A.S. in Sign Language Interpretation program.

Artificial Intelligence (AI) Awareness
College Credit Certificate | Code: 66040 | 9 credits

As the impact of artificial intelligence (AI) expands to every industry, foundational knowledge of the applications of these systems is something employers are exceedingly looking for. The College Credit Certificate in Artificial Intelligence Awareness is suited for students in any field interested in learning about the applications of AI across a variety of sectors, stages involved in a typical AI project, and the ethical considerations when adopting these technologies.

Artificial Intelligence Practitioner
College Credit Certificate | Code: 66041 | 18 credits

As artificial intelligence (AI) continues to expand in every industry, so will the demand for skilled professionals in applied AI. The College Credit Certificate in Artificial Intelligence Practitioner is for individuals with or without a technical background who are interested in entering this growing field. Learners will be introduced to core AI applications and the ethical considerations in their design and execution. Case studies and real-world applications will support learning in the fundamentals of machine learning, the functions of AI virtual assistants, and techniques used in computer vision.

Audio Technology
College Credit Certificate | Code: 61000 | 15 credits

The Audio Technology College Credit Certificate (CCC) is designed for students who intend to seek employment within the music business industry as an alternative to the strictly traditional Music degree program. The Audio Technology college credit certificate combines a traditional music curriculum with industry-related courses and experiences. The curriculum stresses hands-on equipment use in sound engineering and recording, midi music creation, sound reinforcement methods and technologies, and computer applications.

Automation
College Credit Certificate | Code: 68000 | 15 credits

This certificate prepares students for initial employment with an occupational title as an Automation or Applied Automation Specialist in various specialized areas. It can also provide added training for persons in these occupations. These courses can be applied toward the Associate of Science in Advanced Manufacturing.

Biotechnology
College Credit Certificate | Code: 60002 | 19 credits

The College Credit Certificate in Biotechnology seeks to prepare students for immediate entry-level employment in the biotechnology, pharmaceutical, or medical-device manufacturing industry. The program prepares individuals in the principles, procedures, and practices used in the bioscience industries. The college credits granted in this program will apply toward an Associate in Science degree in Biotechnology.

Building Construction Specialist
College Credit Certificate | Code: 66025 | 18 credits

The Building Construction Specialist college credit certificate prepares students for entry in the construction field through acquisition of a basic understanding of drawings and construction estimating through curriculum and practical experiences. Following successful completion, students can obtain employment assisting in construction offices or job sites.

Business Entrepreneurship Operations – Family-Owned Business
College Credit Certificate | Code: 65109 | 18 credits

The Business Entrepreneurship Operations College Credit Certificate is designed to prepare students for employment in entry-level positions or opening their own business or venture in the following areas: Family-Owned Business, Start-Up Venture, and Social Venture. Students may select one of the 3 options, but the certificate is awarded only once.

Business Entrepreneurship Operations – Social Venture
College Credit Certificate | Code: 65111 | 18 credits

The Business Entrepreneurship Operations College Credit Certificate is designed to prepare students for employment in entry-level positions or opening their own business or venture in the following areas: Family-Owned Business, Start-Up Venture, and Social Venture. Students may select one of the 3 options, but the certificate is awarded only once.

Business Entrepreneurship Operations – Start-Up Venture
College Credit Certificate | Code: 65110 | 18 credits

The Business Entrepreneurship Operations College Credit Certificate is designed to prepare students for employment in entry-level positions or opening their own business or venture in the following areas: Family-Owned Business, Start-Up Venture, and Social Venture. Students may select one of the 3 options, but the certificate is awarded only once.

Business Entrepreneurship Specialist – Family-Owned Business
College Credit Certificate | Code: 65098 | 12 credits

The Business Entrepreneurship Specialist College Credit Certificate is designed to prepare students for employment in entry-level positions or opening their own business or venture in the following areas: Family-Owned Business, Start-Up Venture, and Social Venture. Students may select one of the 3 options, but the certificate is awarded only once.

Business Entrepreneurship Specialist – Social Venture
College Credit Certificate | Code: 65097 | 12 credits

The Business Entrepreneurship Specialist College Credit Certificate is designed to prepare students for employment in entry-level positions or opening their own business or venture in the following areas: Family-Owned Business, Start-Up Venture, and Social Venture. Students may select one of the 3 options, but the certificate is awarded only once.

Business Entrepreneurship Specialist – Start-Up Venture
College Credit Certificate | Code: 65101 | 12 credits

The Business Entrepreneurship Specialist College Credit Certificate is designed to prepare students for employment in entry-level positions or opening their own business or venture in the following areas: Family-Owned Business, Start-Up Venture, and Social Venture. Students may select one of the 3 options, but the certificate is awarded only once.

Business Industry Operations
College Credit Certificate | Code: 65061 | 9 credits

The 9-credit-hour certificate program in Business Industry Operations, includes a series of courses that offer students the technical knowledge and skills needed to prepare for further education and careers in a variety of industries aligned to a student's pathway.

Business Intelligence Professional
College Credit Certificate | Code: 66038 | 20 credits

The Business Intelligence Professional College Credit Certificate prepares students for employment in various business intelligence positions and/or for continued studies in the Business Intelligence Specialist AS degree. Students will learn to work with a variety of datasets and transform them into valuable insights via visualizations and reports.

Business Operations - Business Management
College Credit Certificate | Code: 65022 | 18 credits

The Business Operations College Credit Certificate program is the second in a series of three College Credit Certificate programs designed to prepare students for employment and advancement in the following areas: accounting/budgeting, business/ management, customer service, finance, human resources, international business, marketing, nonprofit, real estate, retail and small business. There is only one College Credit Certificate in Business Operations. Students may select one of 4 options, but the certificate is awarded only once.

Business Operations - Human Resources
College Credit Certificate | Code: 65025 | 18 credits

The Business Operations College Credit Certificate program is the second in a series of three College Credit Certificate programs designed to prepare students for employment and advancement in the following areas: accounting/budgeting, business/ management, customer service, finance, human resources, international business, marketing, nonprofit, real estate, retail and small business. There is only one College Credit Certificate in Business Operations. Students may select one of 4 options, but the certificate is awarded only once

Business Operations - Marketing
College Credit Certificate | Code: 65027 | 18 credits

The Business Operations College Credit Certificate program is the second in a series of three College Credit Certificate programs designed to prepare students for employment and advancement in the following areas: accounting/budgeting, business/ management, customer service, finance, human resources, international business, marketing, nonprofit, real estate, retail and small business. There is only one College Credit Certificate in Business Operations. Students may select one of the 4 options, but the certificate is awarded only once.

Business Operations - Small Business
College Credit Certificate | Code: 65031 | 18 credits

The Business Operations College Credit Certificate program is the second in a series of three College Credit Certificate programs designed to prepare students for employment and advancement in the following areas: accounting/budgeting, business/ management, customer service, finance, human resources, international business, marketing, nonprofit, real estate, retail and small business. There is only one College Credit Certificate in Business Operations. Students may select one of 4 options, but the certificate is awarded only once.

Business Specialist - Business Management
College Credit Certificate | Code: 65011 | 12 credits

The Business Specialist College Credit Certificate program is the first in a series of three College Credit Certificate programs designed to prepare students for employment in entry-level positions in the following areas: accounting/budgeting, business management, finance, human resources, international business, marketing, small business. There is only one College Credit Certificate in Business Specialist. Students may select one of the 6 options, but the certificate is awarded only once.

Business Specialist - General Business
College Credit Certificate | Code: 65100 | 12 credits

The Business Specialist College Credit Certificate is the first in a series of three College Credit Certificate programs designed to prepare students for employment in entry-level positions in the following areas: accounting/budgeting, business management, finance, general business, human resources, international business, marketing, and small business. Students may select one of the 6 options, but the certificate is awarded only once.

Business Specialist - Human Resources
College Credit Certificate | Code: 65014 | 12 credits

The Business Specialist College Credit Certificate program is the first in a series of three College Credit Certificate programs designed to prepare students for employment in entry-level positions in the following areas: accounting/budgeting, business/ management, customer service, finance, human resources, international business, marketing, nonprofit, real estate, retail and small business. There is only one College Credit Certificate in Business Specialist. Students may select one of 6 options, but the certificate is awarded only once.

Business Specialist - International Business
College Credit Certificate | Code: 65015 | 12 credits

The Business Specialist College Credit Certificate program is the first in a series of three College Credit Certificate programs designed to prepare students for employment in entry-level positions in the following areas: accounting/budgeting, business/management, customer service, finance, human resources, international business, marketing, nonprofit, real estate, retail and small business. There is only one College Credit Certificate in Business Specialist. Students may select one of 6 options, but the certificate is awarded only once.

Business Specialist - Marketing
College Credit Certificate | Code: 65016 | 12 credits

The Business Specialist College Credit Certificate program is the first in a series of three College Credit Certificate programs designed to prepare students for employment in entry-level positions in the following areas: accounting/budgeting, business management, finance, human resources, international business, marketing, small business. There is only one College Credit Certificate in Business Specialist. Students may select one of the 7 options, but the certificate is awarded only once.

Business Specialist - Small Business
College Credit Certificate | Code: 65020 | 12 credits

The Business Specialist College Credit Certificate program is the first in a series of three College Credit Certificate programs designed to prepare students for employment in entry-level positions in the following areas: accounting/budgeting, business/management, customer service, finance, human resources, international business, marketing, nonprofit, real estate, retail and small business. There is only one College Credit Certificate in Business Specialist. Students may select one of 6 options, but the certificate is awarded only once.

Chef Apprentice
College Credit Certificate | Code: 65059 | 12 credits

The Chef Apprentice Certificate is designed to prepare students with a theoretical and practical foundation for a successful career in the culinary industry. Credits earned can be applied to Associate in Science degree in Culinary Arts Management, which may be transferrable to MDC's BAS in Supervision and Management or upper division public institutions. *Students will be given opportunity to take the Food Safety exam for ServSafe Florida State Certification (State mandated for food handlers in Florida).

Cisco Certified Network Associate (CCNA)
College Credit Certificate | Code: 66050 | 16 credits

The Cisco Network Associate College Credit Certificate program is designed to provide an opportunity to establish a basic foundation in the field of Cisco network design and implementation, leading to certification as a Cisco Certified Network Associate (CCNA).

Commercial Transport Pilot
College Credit Certificate | Code: 68012 | 24 credits

The College Credit Certificate (CCC) in Commercial Transport Pilot will fill a growing need to train personnel in how to organize, review and classify aircraft records to comply with FAA regulations. Students will receive a wide-range of classroom and hands-on training that will provide the student with the education and knowledge to successfully manage the aircraft records department in an aviation company.

Computer Aided Design Assistant
College Credit Certificate | Code: 66070 | 14 credits

The Computer-Aided Design Assistant College Credit Certificate program is designed to prepare students to work as CAD assistants in an architectural office by acquiring a basic understanding of the architectural graphic skills needed to produce working and presentation drawings.

Computer Aided Design Operator
College Credit Certificate | Code: 66071 | 22 credits

The Computer-Aided Design Operator College Credit Certificate program is designed to prepare students in an architectural office by obtaining intermediate skills in architectural graphics needed to produce working and presentation drawings. After successfully completing the following courses, students can obtain employment assisting architects and drafters with computer-aided drawings and design presentations.

Computer Programmer - Business Applications
College Credit Certificate | Code: 66045 | 36 credits

The College Credit Certificate in Computer Programmer-Business Applications is designed to provide an opportunity to establish a foundation in computer programming for employment in scientific, commercial, industrial and government data processing applications. Graduates are prepared for positions as entry-level programmers, programmer specialists, and software developers for both applications and systems software.

Computer Programmer - Mobile Applications Development
College Credit Certificate | Code: 66036 | 36 credits

The College Credit Certificate in Computer Programmer-Mobile Applications Development is designed to provide an opportunity to establish a foundation in computer programming for employment in scientific, commercial, industrial and government data processing applications. The program additionally offers hands on instruction with current technology for Apple and Android mobile device platforms.

Crime Scene Technician
College Credit Certificate | Code: 66072 | 28 credits

The College Credit Certificate in Crime Scene Technician will prepare students for employment in the field of criminalistics with a specialty in Crime Scene Investigation or Forensic Science. The student can serve as, but is not limited to, positions of Forensic Science Technician (SOC 194092), Crime Scene Technician, Medical Examiner Investigator, Medical Investigator, Insurance Investigator,

Legal Investigator, Forensic Paralegal, Crime Scene Investigator, and Laboratory Technician. Students may also continue their formal education with the College and AS in Crime Scene Technology.

Cruise Line Operations
College Credit Certificate | Code: 65053 | 18 credits

All departments unrelated to navigation, engine, and entertainment, fall under the hotel division. This includes customer service, sales and marketing, HR (shoreside / shipboard), housekeeping, food and beverage and pursers. Jobs in the hotel department on a cruise ship are very similar to jobs you will find in a hotel or resort. The hotel manager oversees all shipboard services and is responsible for supervising all staff and crew in these departments.

Culinary Arts Management Operations
College Credit Certificate | Code: 65060 | 18 credits

The Culinary Arts Management Operations College Credit Certificate is designed to prepare students with an in-depth study of food production, and a practical foundation in international cuisine for a successful career in the culinary industry. Credits earned can be applied.

Cybersecurity Analyst
College Credit Certificate | Code: 66061 | 24 credits

The College Credit Certificate (CCC) in Cybersecurity offers essential cybersecurity skills and knowledge needed to secure networks, infrastructure, and use strategies to reduce the risk of incidents. The program curriculum offers hands-on learning to defend against cyber-attacks and the opportunity to prepare for multiple in-demand industry certifications.

Digital Marketing Specialist
College Credit Certificate | Code: 65096 | 12 credits

The Digital Marketing Specialist Certificate is designed to prepare students to build and execute a digital marketing plan using digital tools to design, distribute, promote, and price a product or service. Graduates will understand how to connect with consumers using multiple digital platforms to create effective targeted promotional campaigns.

Digital Marketing Strategy
College Credit Certificate | Code: 65102 | 18 credits

The Digital Marketing Strategy College Credit Certificate is designed to prepare students to design, implement, manage and analyze digital marketing strategies and campaigns. Graduates will understand how to connect with consumers using multiple digital platforms to create effective customer-focused promotional campaigns.

Early Childhood Education - Administrator
College Credit Certificate | Code: 60004 | 12 credits

This is a College Credit Certificate with a specialization in Child Care Management. The purpose of this program is to prepare students as early childhood education administrators with the knowledge and skills to effectively manage a quality childcare program or to provide supplementary training for persons previously or currently employed in these occupations. This CCC will allow its holder to apply for a Advanced Director's Credential or continue their education.

Early Childhood Education - Child Development Early Intervention Specialization
College Credit Certificate | Code: 60007 | 36 credits

This is a College Credit Certificate (CCC) in Early Childhood Education (ECE) with a specialization in Child Development Early Intervention. The purpose of this program is to prepare students as early childhood educators who can identify learning differences in young children and meet their educational needs.

Early Childhood Education - Early Childhood Education Inclusion Specialization
College Credit Certificate | Code: 60006 | 12 credits

This is a College Credit Certificate in Early Childhood Education with a specialization in Early Childhood Inclusion. This is an introductory CCC for care practitioners who need training in addition to their initial credentials, i.e., Florida Child Care Professional Certificate (FCCPC) or the National Child Development Associate (N-CDA) credential in order to provide high quality early childhood education for all children.

Early Childhood Education - Preschool
College Credit Certificate | Code: 60003 | 12 credits

This is a College Credit Certificate in early childhood education with a Preschool specialization. The purpose of this program is to prepare students as early childhood education caregivers with a preschool specialization or to provide supplementary training for persons previously or currently employed in these occupations. This CCC will allow its holder to apply for a National Child Development Associate credential enabling this student to pursue work as a childcare provider nationally or continue their education.

Emergency Medical Technician
College Credit Certificate | Code: 63028 | 12 credits

The Emergency Medical Technician – Basic College Credit Certificate is a one-semester program, which prepares students to function in the hospital and pre-hospital environment. Graduates of this program can perform clinical data collection, patient assessment and provide immediate care and safe relocation of the acutely ill and injured. Satisfactory completion of this program will qualify the graduate to sit for the State and/or National EMT Certification Examination. This program is approved by the State of Florida, Department of Health and Rehabilitative Services.

Endoscopic Technician
College Credit Certificate | Code: 63030 | 24 credits

The College Credit Certificate in Endoscopic Technician is designed to educate and prepare graduates with skills required for entry-level employment as a member of the healthcare team. In addition, students will acquire extensive knowledge of legal and ethical responsi-

bilities, anatomy, physiology, pathophysiology, microbiology, aseptic techniques, patient care procedures, patient safety, and use and care of equipment and supplies.

Engineering Technology Support Specialist
College Credit Certificate | Code: 66052 | 18 credits

This program offers a sequence of courses that provides students with the relevant technical knowledge and skills needed to prepare for further education and careers in the manufacturing career cluster.

Enterprise Cloud Computing
College Credit Certificate | Code: 66058 | 24 credits

The Enterprise Cloud Computing Credit Certificate program is designed to provide an opportunity to establish foundation in architect scalable, highly available application solutions that leverage cloud computing services utilizing best practices focusing on cloud security, cost, and reliability. Graduates will utilize core design patterns and infrastructure expertise to implement solutions to deploy and maintain workloads and applications.

Film Production Fundamentals
College Credit Certificate | Code: 61001 | 24 credits

The Film Production Fundamentals College Credit Certificate (CCC) is designed to prepare students for entry-level employment in the motion picture industry. Students will understand the fundamentals in the following skills: lighting, grip, camera, audio recording, and editing.

Florida Funeral Director
College Credit Certificate | Code: 63024 | 31 credits

The Florida Funeral Director certificate program is intended for individuals who have obtained a prior degree from an accredited institution and intend to transition into a new career path. Funeral Directors arrange the details and handle the logistics of funerals, assist the family in establishing the location, date, and time of wakes, memorial services, and burials, and determine whether the body should be buried, entombed, or cremated depending on the family's cultural and/or religious practices. The Florida Funeral Director certificate program will allow students to be eligible for the Florida Funeral Directors State Licensing Exam. This academic program is designed to meet specific state or professional needs. It is not accredited by the American Board of Funeral Service Education. Students graduating from this program are not eligible to take the National Board Examination or any state board examination for which graduation from an ABFSE accredited program is required.

Food & Beverage Management
College Credit Certificate | Code: 65051 | 30 credits

The Food Service Management College Credit Certificate program is designed to prepare students with a theoretical and practical foundation for a successful career in the food and beverage industry. Students enrolled in this program are prepared for positions such as Catering/Banquet Manager, Food & Beverage Manager, Restaurant Manager and Bar/Lounge Manager. Credits earned can be applied to an Associate in Science degree in Hospitality Management, which is fully transferable to public universities within the State of Florida.

Food and Beverage Operations
College Credit Certificate | Code: 65058 | 18 credits

The Food and Beverage Operations College Credit Certificate is designed to prepare students with an in-depth and practical foundation in management for a successful career in the food and beverage industry. Students enrolled in this certificate are prepared for positions such as Shift Supervisor, Restaurant Supervisor, or Bar/Lounge Supervisor. Credits earned can be applied to an Associate in Science degree in Hospitality Management, which is fully transferable to public universities within the state of Florida.

Food and Beverage Specialist
College Credit Certificate | Code: 65057 | 12 credits

The Food and Beverage Specialist College Credit Certificate is designed to prepare students with a theoretical and practical foundation for a successful career in the food and beverage industry. Students enrolled in this certificate are prepared for positions such as Restaurant Server, Room Service Attendant, or Banquet Set-Up Staff. Credits earned can be applied to an Associate in Science degree in Hospitality Management, which is fully transferable to public universities within the state of Florida.

Geographic Information Systems Technology
College Credit Certificate | Code: 66080 | 21 credits

Geographic Information Systems (GIS) is a technological field that promotes cooperation within and across organizations by enabling the integration of several information platforms to facilitate mapping, analysis and planning strategies. The College Credit Certificate program in Geographic Information Systems Technology prepares students with professional and technical training in geographic information systems (GIS). Graduates of the CCC acquire a skill-set that equips them to create, modify and enhance GIS for analysis, prediction, decision making and planning in a variety of fields.

Graphic Design Support
College Credit Certificate | Code: 61002 | 15 credits

The Graphic Design Support College Credit Certificate (CCC) is designed to prepare students for initial employment as a graphic design assistant, graphic production artist, or to provide supplemental training for persons previously or currently employed in these occupations.

Health Care Services Specialist
College Credit Certificate | Code: 63021 | 27 credits

The 27-credit-hour certificate program includes a series of courses that prepare students to become proficient on the latest software used in medical offices. A medical office manager plays an integral part in the day-to-day operations of a medical practice. Medical office manager responsibilities include, but are not limited to, monitoring the office budget, ordering medical supplies and implement-

ing office policies and procedures. Graduates will also be trained to understand the complexities of healthcare insurance regulations and payment systems. This certificate is upward compatible with the A.S. degree, Health Services Management.

Healthcare Informatics Specialist
College Credit Certificate | Code: 63014 | 24 credits

This program is designed to prepare students for employment in various healthcare settings where the Electronic Health Record is being implemented or maintained. Students will learn the concepts of collection of health information, integration of technology into the management of healthcare records, basic concepts in health data management, and database management in a healthcare setting.

Help Desk Support Technician
College Credit Certificate | Code: 66037 | 16 credits

The Help Desk Support Technician College Credit Certificate is designed to prepare students with the technical knowledge and skills for employment as entry-level computer help desk and support technicians in commercial, industrial and government institutions. Graduates are also prepared for CompTIA A+ and Network+ industry certifications.

Homeland Security
College Credit Certificate | Code: 66074 | 15 credits

The College Credit Certificate (CCC) in Homeland Security equips students with essential knowledge and skills in counter-terrorism, intelligence, and national security. This introductory program covers key areas of homeland security, providing a comprehensive understanding of both proactive and reactive strategies to address national security threats. This certificate offers a robust foundation for students in Criminal Justice and various disciplines who are interested in pursuing careers in homeland security and national defense. Students may also continue their formal education with the College and receive an Associate's Degree in Criminal Justice Technology or Criminal Justice Administration.

Horticulture Professional
College Credit Certificate | Code: 63025 | 18 credits

The College Credit Certificate in Agriscience for the Horticulture Professional is an advanced certificate for managerial positions in nursery and landscape technology industries. The certificate will prepare students for employment in horticulture and landscape industries as nursery mangers, landscape and grounds keeping mangers, nursery supervisors, landscape gardeners, and parks workers. Students will learn concepts of plant physiology and growth, plant classification, plant identification and plant care and maintenance to satisfy the growing needs of the nursery industry with an additional emphasis on management skills. If a student should choose to continue their education in Agriscience, the college credits granted in this program will apply toward an A.S. degree in Landscape and Horticulture Technology.

Horticulture Specialist
College Credit Certificate | Code: 63026 | 12 credits

The College Credit Certificate in Agriscience for the Horticulture Specialist is an introductory certificate designed to prepare students for positions in the nursery and landscape industries at the entry level. The certificate will prepare students for employment as supervisors in grounds keeping, nursery and greenhouse production, landscape gardeners, and parks workers. Students will learn plant physiology and growth, plant classification, plant identification and plant care and maintenance to satisfy the growing needs of the nursery industry. If a student should choose to continue their education in Agriscience, the college credits granted in this program will apply toward an A.S. degree in Landscape and Horticulture Technology.

Infant/Toddler Specialization
College Credit Certificate | Code: 67014 | 12 credits

This program is designed to prepare students as early childhood education caregivers with an infant/toddler specialization or provide supplementary training for persons previously or currently employed in these occupations. Students will learn essential components of quality care and education including, but not limited to early childhood education, guidance techniques, establishing and maintaining a safe and healthy learning environment, rules and regulations, family interactions, nutrition, child growth and development and professional responsibilities. Employment opportunities include in home or center based programs for infants/toddlers.

Information Technology Support
College Credit Certificate | Code: 66044 | 28 credits

The Information Technology Support program is designed to provide an opportunity to establish a basic foundation in computer applications for employment in scientific, commercial, industrial and government institutions. Graduates are prepared for positions as data-entry specialists, software applications specialists and office systems specialists to meet the demands of today's automated offices.

Intelligence Studies
College Credit Certificate | Code: 65075 | 16 credits

The College Credit Certificate (CCC) in Intelligence Studies equips students with essential knowledge and skills for future roles in intelligence agencies. This introductory program covers the fundamentals of intelligence and national security, emphasizing both retroactive and proactive applications in addressing computer crimes, homeland security concerns, and natural disasters. Students explore the history and evolution of intelligence practices in the United States, gaining a robust understanding of the field. The program provides a strong foundation for students in Criminal Justice and related fields, preparing them for careers in intelligence and national security. Students may also continue their formal education with the College and receive an Associate's Degree in Criminal Justice Technology or Criminal Justice Administration.

Intermodal Freight Transportation
College Credit Certificate | Code: 68011 | 18 credits

This certificate provides specialized knowledge in the intermodal transportation of goods. It covers technical skills, procedures, processes and occupation-specific skills that will enhance employability. This certificate is part of the Associate in Science degree in Transportation and Logistics.

International Freight Transportation
College Credit Certificate | Code: 68010 | 15 credits

This certificate provides specialized knowledge in the area international movement of freight. It covers the regulations and policies governing international shipments and border security, the intermodal transportation of international freight, the regulatory agencies and the documents and processes involved. This certificate is part of the Associate of Science Degree in Transportation and Logistics.

Internet of Things (IoT) Applications
College Credit Certificate | Code: 66057 | 24 credits

The Internet of Things (IoT) Applications College Credit Certificate prepares students with multidisciplinary workforce skills and provides an accelerated credential that is useful for immediate employment and career experience. Graduates of the CCC in the IoT Applications acquire a skill-set that leads to producing connected devices by developing applications that can run on microcontroller development boards, simulating the functioning of the devices, and building physical prototypes. Upon completion of the program, the student will have learned how to program in the dominant programing languages used in IoT, completed projects that they can include in their portfolio, and configured different single board computers.

Lean Manufacturing
College Credit Certificate | Code: 68001 | 12 credits

This certificate prepares students for initial employment with an occupational title as a Quality Specialist or Lean Specialist in various specialized areas. It also can provide supplemental training for persons previously or currently employed in these occupations. These courses can be applied toward the Associate of Science in Advanced Manufacturing.

Lending
College Credit Certificate | Code: 65080 | 32 credits

The primary vision of the Lending Certificate is to develop in the students the ability to identify risks by providing a comprehensive foundation in financial analysis and credit underwriting fundamentals. The student will learn how to recognize first signals of credit deterioration and how lending officers manage problematic credit risk situations and implement strategies to minimize losses. The Program content includes identification, analysis of key qualitative risk factors, assessment, calculation, and interpretations of key ratios and elements of financial accounting.

Logistics and Transportation Specialist
College Credit Certificate | Code: 63019 | 18 credits

The Logistics and Transportation Specialist College Credit Certificate (CCC) will prepare students for further education and employment in the Transportation, Distribution and Logistics career cluster. The program content is broad-based to reflect the cross-functional relationships prevalent in supply chain management. Students are exposed to related business practices such as standard operating procedures, negotiation techniques, planning, organizing, and accounting concepts, purchasing, sustainability, warehousing, project management, quality control, import/export, and asset management theory. Emphasis is placed on understanding the planning, acquisition, flow, and distribution of goods and services while managing the complexity of operational linkages in a fast-paced global supply chain.

Mechatronics
College Credit Certificate | Code: 66053 | 30 credits

This program offers students instruction in maintenance techniques, computer aided drafting/design skills, technical communications, maintenance and operation of various industrial components, quality control and testing, material handling protocols, and proper usage of tools and instrumentation.

Medical Coder/Biller
College Credit Certificate | Code: 63020 | 37 credits

The Medical Coder/Biller program prepares individuals for employment as Medical Coder/Billers. The student will learn to translate diagnoses and procedures into numerical designation (coding) using the International Classification of Diseases (ICD-9-CM) and Current Procedural Terminology (CPT-4). The program involves coding, classifying and indexing diagnoses and procedures for purposes of standardization, retrieval and statistical analysis. The student will also be trained to prepare and file medical insurance claim forms for reimbursement. Electronic claims transmission is included. There is special emphasis on ethical and legal responsibilities, data quality, financial reimbursement, Diagnosis Related Groups (DRGs) and Ambulatory Patient Classification (APCs).

Mental Health - Neuroscience and Aging
College Credit Certificate | Code: 65079 | 18 credits

This College Credit Certificate (CCC) in Mental Health - Neuroscience and Aging is designed to prepare students to meet community needs and industry demands in the field of mental health services with a diverse aging population.

Microcomputer Repairer/Installer
College Credit Certificate | Code: 66032 | 15 credits

The Microcomputer Repairer/Installer College Credit Certificate program is designed to prepare students to work as Computer Repair Assistants in a computer repair shop or the computer maintenance division of a corporation, by acquiring a basic understanding of computer internal architecture and operations. Students must complete the courses listed below.

Network Server Administration

College Credit Certificate | Code: 66035 | 24 credits

The College Credit Certificate can help you get started in the technology field by offering you the foundational skills needed to support organizations by administering network systems and services. The program can teach you to implement, protect, and manage networks and servers in today's business environments. Program coursework is additionally designed to help you prepare for a variety of industry-recognized certifications, including: Network+, Security+, Server+, Linux+, and Microsoft Azure Administrator Associate. As a graduate, you may seek employment as an entry-level Network and Computer Systems Administrator, Network Support Technician, Information Technology Support Specialist, and Network Specialist.

Network Systems Developer

College Credit Certificate | Code: 66034 | 41 credits

The Network Systems Developer College Credit Certificate is designed to prepare students to work as Computer Repair Technicians in a computer repair shop or the computer maintenance division of a corporation, by acquiring an in-depth understanding of computer internal architecture, operations and digital systems design operations.

Oracle Certified Database Administrator

College Credit Certificate | Code: 66048 | 16 credits

The Oracle Certified Database Administrator College Credit Certificate program is designed to provide an opportunity to establish a basic foundation in the field of database administration for employment in commercial, industrial and government institutions. Graduates are prepared for the position of Oracle Database Administrator.

Paramedic

College Credit Certificate - Health Sciences | Code: 63008 | 42 credits

The Paramedic College Credit Certificate provides students with the advanced skills, knowledge, and clinical experience required to provide safe and effective hospital and pre-hospital care to the sick and injured. Satisfactory completion of the program will qualify the graduate to sit for the State and/or National Paramedic Certification Examination. This program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP) and approved by the State of Florida, Department of Health and Rehabilitative Services.

Passenger Service Agent

College Credit Certificate | Code: 66028 | 16 credits

The Passenger Service Agent College Credit Certificate program is designed to give students the skills required to gain employment as a passenger service agent, including gate and ramp responsibilities. Students will be required to do an internship with a commuter or major airline. Contact the Aviation Department at 305-237-5950 for more information and advisement

Patternmaking and Construction

College Credit Certificate | Code: 64002 | 21 credits

The College Credit Certificate Program in Patternmaking and Construction prepares students to fulfill the essential roles of machinists, pattern makers, and pattern cutters in the growing field of fashion. Classes focus on the technical skills and basic textile knowledge required for entry level positions in the industries of textile, apparel, and furnishings.

Rapid Prototyping Specialist

College Credit Certificate | Code: 66054 | 12 credits

This program prepares students for entry level positions as Rapid Prototypers or 3d Modeler/Designer. The program provides the technical skills proficiency and competency-based applied learning that contributes to the academic and career knowledge for students entering the advanced manufacturing industry.

Real Estate Legal Specialization Certificate

College Credit Certificate | Code: 67015 |12 credits

The College Credit Certificate (CCC) in Real Estate Legal Specialization Certificate program equips students with the necessary skills to pursue entry-level positions in law offices, lending institutions, title companies, real estate brokerage offices, real estate settlement offices, and government agencies. Additionally, it provides an opportunity for individuals already working in the field without real estate expertise to enhance their skills, thereby increasing their marketability and potentially advancing their careers in the legal and real estate sectors.

Rooms Division Management

College Credit Certificate | Code: 65048 | 30 credits

The Rooms Division Management College Credit Certificate program is designed to prepare students with a theoretical and practical foundation for a successful career in the hotel sales and marketing industry. Students enrolled in this certificate are prepared for positions such as Front Desk Manager, Guest Relations Manager, Executive Housekeeping Manager. Credits earned can be applied to an Associate in Science or an Associate in Arts degree in Hospitality and Tourism Management. Associate in Science degree in Hospitality Management, which is fully transferable to public universities within the state of Florida.

Rooms Division Operations

College Credit Certificate | Code: 65056 | 19 credits

The Rooms Divisions Operations College Credit Certificate is designed to prepare students with a theoretical and practical foundation for a successful career in the lodging industry. Students enrolled in this certificate are prepared for positions such as Front Desk Supervisor or Guest Relations Supervisor. Credits earned can be applied to an Associate in Science degree in Hospitality Management, which is fully transferable to public universities within the state of Florida.

Rooms Division Specialist
College Credit Certificate | Code: 65055 | 13 credits

The Rooms Divisions Specialist College Credit Certificate is designed to prepare students with a theoretical and practical foundation for a successful career in the lodging industry. Students enrolled in this certificate are prepared for positions such as Front Desk Agent, Guest Relations Agent, or Reservation Clerk. Credits earned can be applied to an Associate in Science degree in Hospitality Management, which is fully transferable to public universities within the state of Florida.

Sales and Customer Management
College Credit Certificate | Code: 65107 | 12 credits

The certificate in Sales and Customer Management is designed to enhance knowledge and practical skills for a successful career in the sales profession. Students will be able to use customer relationship management (CRM) and selling techniques for reaching target markets to sell a product or service to sustain profitability and competitiveness.

Solar Energy Systems Specialist
College Credit Certificate | Code: 66056 | 18 credits

The College Credit Certificate (CCC) in Solar Energy Systems Specialist will fill a growing need to train personnel in how to build and install Solar Photo-Voltaic panels in both commercial and private structures. Students will receive a wide-range of classroom and hands-on training that will provide the student with the education and knowledge of the following grid connect solar power systems, off grid solar-remote power systems, commercial and medium scale solar, solar hot water, solar hydronics/thermal, and solar water pumping.

Sports Management Operations
College Credit Certificate | Code: 65095 | 18 credits

This certificate in Sports Management Operations is designed to provide instruction to individuals in the areas of sports management, competitive gaming, collect and distribution of data, directing and controlling of a business, with emphasis on selected theories of management and decision-making and the knowledge and understanding necessary for managing people and functions.

Tax Specialist
College Credit Certificate | Code: 65076 | 12 credits

The College Credit Certificate in Tax Specialist will prepare students to fill out the necessary forms for their clients or for the businesses in which they work. In addition, students will learn how to reduce taxable income and discover the current income tax regulations and their impact on individuals, couples, families, and business owners. In addition, students will gain a working knowledge about business income, tax credits, itemized deductions, LLCs and S Corps, retirement plans, and home businesses.

Television Studio Production
College Credit Certificate | Code: 61003 | 12 credits

The Television Studio College Credit Certificate (CCC) is designed for students who intend to seek employment in radio, television and production companies, as well as allied fields such as in-house educational and industrial studios. The curriculum stresses hands-on equipment use in TV laboratories. Students will have access to high-end cameras, editing suites and video graphics animation facilities and will complete portfolio-quality productions.

Translation and Interpretation
College Credit Certificate | Code: 64052 | 18 credits

This College Credit Certificate (CCC) focuses on the basic preparation needed for a career in Translation and Interpretation. Students learn how language functions and apply this knowledge to the development of Sight and Consecutive Interpretation skills. The development of basic translation competencies is also covered with emphasis on the use of Computer Assisted Translation software.

Virtual and Augmented Reality Technologies
College Credit Certificate | Code: 66060 | 19 credits

The program will teach students the fundamentals of Virtual and Augmented Reality. Students will learn basic concepts, history and tools commonly used for stereoscopic image acquisition and immersive technologies. Students will also learn the origins of Virtual Reality (VR) and its current role in the industry, its applications and opportunities and how to generate and manipulate VR imagery.

College Credit Certificates (CCC) Program Sheets

Miami Dade College

Accounting and Budgeting
College Credit Certificate | Code: 65075 | 18 Credits
CIP (0552030203**)**
Effective Term: Fall 2019 (2207)

The College Credit Certificate in Accounting and Budgeting will prepare students to compute, classify, and record numerical data to keep financial records complete. Students will also be prepared to check the accuracy of figures, calculations, and postings pertaining to business transactions recorded by other workers.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (18.00 Credits)			
ACG 1403	Excel for Business	1	
ACG 2021	Financial Accounting	3	Co-Req: ACG 2021L
ACG 2021L	Financial Accounting Lab	1	Co-Req: ACG 2021
ACG 2071	Managerial Accounting	3	Pre-Req: ACG 2001 and 2011; or ACG 2021 Co-Req: ACG 2071L
ACG 2071L	Managerial Accounting Lab	1	Pre-Req: ACG 2021 and 2021L Co-Req: ACG 2071
ACG 2450	Microcomputers in Accounting	3	Pre/Co-Req: ACG 2001 or 2021
TAX 2000	Income Tax	3	
TAX 2021	Taxation of Business Organizations	3	

Miami Dade College

Accounting Technology Management
College Credit Certificate |65077| 27 Credits
CIP:
Effective Term: Fall 2017 (2177)

The Accounting Applications College Credit Certificate program is designed to prepare students for employment as accounting clerks, data processing clerks, junior accountants and assistant accountants, or to provide supplemental training for persons previously or currently employed in these occupations. The program prepares individuals in the principles, procedures and theories of organizing and maintaining business and financial records, and the preparation of accompanying financial reports

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (27.00 Credits)			
Must take 3.0 credits from the following group.			
ACG 2011	Principles of Accounting 2	3	
ACG 2021	Financial Accounting	3	
- - - And - - -			
Must take 1.0 credits from the following group.			
ACG 2011L	Principles of Accounting 2 Lab	1	
ACG 2021L	Financial Accounting Lab	1	
- - - And - - -			
Must take 22.0 credits from the following group.			
ACG 2071	Managerial Accounting	3	
MTB 1103	Business Mathematics	3	
OST 2335	Business Writing	3	
ACG 2071L	Managerial Accounting Lab	1	
TAX 2000	Income Tax	3	
ACG 2450	Microcomputers in Accounting	1 - 3	
TAX 2010	Business Taxes & Returns	3	
GEB 1011	Principles of Business	3	

MAJOR COURSE ELECTIVES (1.00 Credits)
ACG* BAN* BRC* BUL* CGS* CTS* ECO* FIN* GEB* MAC* MAN* MAR* MKA* MNA* MTB* OST* PUR* QMB* REE* SBM* TAX*

COMPUTER COMPETENCY
Test type(s) needed: CGS1060C Introduction to Computer Technology & Applications

Miami Dade College

Addiction Studies
College Credit Certificate | Code: 65078 | 24 Credits
CIP:
Effective Date:

The Human Services program with a specialization in Addiction Studies is designed to prepare students for employment as human services specialists, human services practitioners, chemical dependency practitioners, addiction specialists, mental health and social service practitioners, or to provide supplemental training for persons previously or currently employed in these occupations. The program is also designed to provide most of the general academic and addiction specific requirements of the Certification Board for Addiction Professionals of Florida.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR CORE REQUIREMENTS (24.00 Credits Required)			
HUS 1302	Basic Counseling Skills	3	
HUS 1421	Assessment and Treatment Planning in Addictions	3	
HUS 1423	Group Counseling in Substance Abuse	3	
HUS 1428	Addiction Treatment Delivery Systems	3	
HUS 1440	Family Issues in Chemical Dependency	3	
HUS 1475	Addiction Counseling and the Law	3	
HUS 2303	Counseling Techniques	3	
PSB 2442	The Psychology of Addictions	3	

Miami Dade College

Air Cargo Management
College Credit Certificate |66030| 16 Credits
CIP:
Effective Term: Fall 2017 (2177)

The Air Cargo Management College Credit Certificate program is designed to give students the skills required to gain employment as an air cargo agent. The program can be completed in one or two semesters with classes offered during the day or evening hours. All of the credits earned can be applied towards an A.S. degree in Aviation Administration. Contact the Aviation Department at 305-237-5950 for information and advisement.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (16.00 Credits)			
SCIENCE (16.00 Credits)			
AVM 1010	Aviation Industry Operation	3	
AVM 1022	Flight Operations	3	
AVM 1062	Aviation Career Planning	1	
AVM 1121	Hazardous Materials/Dangerous Goods	3	
AVM 2120	Air Cargo	3	
AVM 2431	Customer Service Agent	3	

Miami Dade College

Airline Maintenance Procedures and Records Management
College Credit Certificate | Code: 63018 | 18 Credits
CIP (0649010411**)**
Effective Term: Fall 2019 (2197)

The College Credit Certificate (CCC) in Airline Maintenance Procedures and Records Management will fill a growing need to train personnel in how to organize, review and classify aircraft records to comply with FAA regulations, as well as successfully manage records at aircraft manufacturers, airlines and maintenance repair operators. Students will receive a wide-range of classroom and hands-on training that will provide the student with the education and knowledge to successfully manage the aircraft records department in an aviation company.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (18.00 Credits)			
ASC 1610	Aircraft Engines/Structures	3	
AVM 1160	Aviation Maintenance Programs and Inspections	3	
AVM 1161	Aircraft Performance Measures and Maintenance Requirements	3	
AVM 1162	Maintenance Repair and Overhaul (MRO) Interactions with Commercial Airline Operations	3	
AVM 1163	Policies and Procedures for Commercial Airlines Maintenance Programs	3	
AVM 1964	Logistics and Maintenance Programs for Commercial Airlines	3	

Miami Dade College

Airline/Aviation Management
College Credit Certificate | Code: 63012 | 16 credits
CIP (0649010403**)**
Effective Term: Fall 2008 (2087)

The Airline/Aviation Management College Credit Certificate program will provide the student with aviation management skills in an accelerated time frame. These include areas such as airline/aviation industry knowledge, management skills, marketing, law and operations. Students will learn how to take industry concepts and apply them both individually and as a team. They will be able to gain insight into the actual issues involved in running an airline at both the micro and macro levels, from a leadership perspective. They will also acquire up to-date knowledge about airline/aviation technologies and law, and the latest management concepts and practical application of theories to real life aviation scenarios. Contact the Aviation Department at 305-237-5950 for information and advisement.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (16.00 Credits)			
Group A:			
ASC 2320	Aviation Laws and Regulations	3	
AVM 1010	Aviation Industry Operation	3	
AVM 1022	Flight Operations	3	
AVM 1062	Aviation Career Planning	1	
---AND---			
Group B:			
AVM 2510	Airline Management	3	
AVM 2515	Airline Marketing	3	
---OR---			
AMT 1990	Tools, Materials, and Process I	3	
AMT 2991	Tools, Materials, and Process II	3	

Miami Dade College

Airport Management
College Credit Certificate | Code 63017 | 16 Credits
CIP (0649010405**)**
Effective Term: Fall 2008 (2087)

The Airport Management College credit certificate program provides the student with the skills required to advance to management positions at airport (city & government) and/or airline terminal operations. Students will understand the cost centers, design processes and financial considerations required to be an effective manager in the aviation industry. Additional Information: Contact the Aviation Department at (305) 237-5950 for information and advisement.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (16.00 Credits)			
ASC 2320	Aviation Laws and Regulations	3	
AVM 1440	Aviation/Airport Security	3	
AVM 2410	Principles of Airport Management	3	
AVM 2450	Airport Facilities/Financial Planning	3	
AVM 1010	Aviation Industry Operation	3	
AVM 1062	Aviation Career Planning	1	

Miami Dade College

American Sign Language
College Credit Certificate | Code: 64053 | 22 Credits
CIP (0713100307**)**
Effective Term: Fall 2023 (2237)

The American Sign Language College Credit Certificate program equips students with basic American Sign Language skills to communicate with Deaf and Hard-of-Hearing individuals using expressive fingerspelling, signing, and conversational behaviors. Learning basic American Sign Language and understanding Deaf Culture benefits all students as it diversifies their communications skills, particularly those planning to enter or are currently employed in the highly competitive human services and customer relations job markets. While this program does not prepare students to become interpreters, students who earn this certificate may choose to continue their studies in the A.S. in Sign Language Interpretation program.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (22.00 Credits)			
ASL 1140C	American Sign Language 1	4	
ASL 1150C	American Sign Language 2	4	Prerequisite: ASL 1140C
ASL 2510	Deaf Culture and Community	3	
ASL 2160C	American Sign Language 3	4	Prerequisite: ASL 1150C; Pre/Corequisite: ASL 2210
ASL 2200C	American Sign Language 4	4	Prerequisite: ASL 2160C
ASL 2210	ASL Conversational Skills	3	Prerequisite: ASL 1150C or ASL 2160C

Additional Information
Students are required to take ASL 1140C - American Sign Language 1 if students have no prior knowledge of ASL or do not meet the placement requirement into ASL 1150C.

Students who have some exposure to American Sign Language (ASL) (i.e., High School Coursework or with family members) may start with ASL 1150C - American Sign Language 2 with departmental permission after evaluation.

Miami Dade College

Artificial Intelligence Awareness
College Credit Certificate | Code: 66040 | 9 Credits
CIP (0511020113**)**
Effective Term: Fall 2024 (2247)

As the impact of artificial intelligence (AI) expands to every industry, foundational knowledge of the applications of these systems is something employers are exceedingly looking for. The College Credit Certificate in Artificial Intelligence Awareness is suited for students in any field interested in learning about the applications of AI across a variety of sectors, stages involved in a typical AI project, and the ethical considerations when adopting these technologies.

Course	Course Title	Credits	Pre-/Co-Requisites
Program Concentration Core (6.00 Credits)			
CAI 1001C	Artificial Intelligence (AI) Thinking	3	
PHI 2680	Artificial Intelligence and Ethics	3	
Discipline Specific Elective (3.00 Credits)			
ETS 1603C	Introduction to Robotics	4	
GEB 1432	Applied Artificial Intelligence (AI) in Business	3	
HSC 2060	Artificial Intelligence Applications in Healthcare	3	

Miami Dade College

Artificial Intelligence Practitioner
College Credit Certificate | Code: 66041 | 18 Credits
CIP (0511010200**)**
Effective Term: Spring 2024 (2243)

As artificial intelligence (AI) continues to expand in every industry, so will the demand for skilled professionals in applied AI. The College Credit Certificate in Artificial Intelligence Practitioner is for individuals with or without a technical background who are interested in entering this growing field. Learners will be introduced to core AI applications and the ethical considerations in their design and execution. Case studies and real-world applications will support learning in the fundamentals of machine learning, the functions of AI virtual assistants, and techniques used in computer vision.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (18.00 Credits)			
CAI 1001C	Artificial Intelligence (AI) Thinking	3	
CAI 2100C	Machine Learning Foundations	3	Prerequisites: CAI 1001C and COP 1047C
CAI 2300C	Introduction to Natural Language Processing	3	Prerequisite: CAI 2100C
CAI 2840C	Introduction to Computer Vision	3	Prerequisite: CAI 2100C
COP 1047C	Introduction to Python Programming	4	
PHI 2680	Artificial Intelligence and Ethics	3	

Miami Dade College

Audio Technology
College Credit Certificate | Code: 61000 | 15 Credits
CIP (0650060209**)**
Effective Term: Fall 2017 (2177)

The Audio Technology College Credit Certificate (CCC) is designed for students who intend to seek employment within the music business industry as an alternative to the strictly traditional Music degree program. The Audio Technology college credit certificate combines a traditional music curriculum with industry-related courses and experiences. The curriculum stresses hands-on equipment use in sound engineering and recording, midi music creation, sound reinforcement methods and technologies, and computer applications.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (15.00 Credits)			
MUM 1662	Sound Reinforcement Fundamentals	3	
MUM 1622L	Sound Reinforcement Fundamentals Lab	1	
MUM 2600	Sound Recording 1	3	
MUM 2600L	Sound Recording 1 Lab	1	
MUM 2601	Sound Recording 2	3	
MUM 2601L	Sound Recording Lab	1	
MUM 2623C	MIDI Electronic Music	3	

Miami Dade College

Automation
College Credit Certificate | 68000 | 15 Credits
CIP: ( )
Effective Term: Fall 2017 (2177)

This certificate prepares students for initial employment with an occupational title as an Automation or Applied Automation Specialist in various specialized areas. It can also provide supplemental training for persons previously or currently employed in these occupations. These courses can be applied toward the Associate of Science in Advanced Manufacturing.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSES FIRST SEMESTER (15.00 credits)			
ETI 1040	Introduction to Bioscience Manufacturing	3	
ETI 1701	Industrial Safety	3	
ETI 2404	Advanced Manufacturing Technology	3	
ETM 1315C	Applied Pneumatics and Hydraulics	3	
MAC 1105	College Algebra	3	

Miami Dade College

Biotechnology
College Credit Certificate | Code: 60002 | 19 Credits
CIP (0641010100**)**
Effective Term: Fall 2017 (2177)

The College Credit Certificate in Biotechnology seeks to prepare students for immediate entry-level employment in the biotechnology-, pharmaceutical-, or medical device manufacturing industry. The program prepares individuals for the principles, procedures, and practices used in the bioscience industries. The college credits granted in this program will apply toward an Associate of Science degree in Biotechnology.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (19.00 Credits)			
BSC 2426	Biotechnology Methods and Applications 1	3	Prerequisite: Previous knowledge of chemistry and biology strongly recommended; Corequisite: BSC 2426L.
BSC 2426L	Biotechnology Methods & Applications 1 Laboratory	2	Prerequisite: Previous knowledge of chemistry and biology strongly recommended. Corequisite: BSC 2426
CHM 1045	General Chemistry and Qualitative Analysis	3	Prerequisite: CHM1025 or a passing score on the CART exam, MAC 1105; Corequisite: CHM 1045L
CHM 1045L	General Chemistry and Qualitative Analysis Lab	2	Prerequisite: MAC1105, CHM1025 or a passing score on the CART exam. Corequisite: CHM 1045.
ETI 1040	Introduction to Bioscience Manufacturing	3	
ETI 1172	Introduction to Quality Assurance	3	
MAC 1105	College Algebra	3	Prerequisite: MAT 1033

Miami Dade College

Building Construction Specialist
College Credit Certificate | Code: 66025 | 18 Credits
CIP:
Effective Term: Fall 2017 (2177)

The Building Construction Specialist college credit certificate prepares students for entry in the construction field through acquisition of a basic understanding of drawings and construction estimating through curriculum and practical experiences. Following successful completion, students can obtain employment assisting in construction offices or job sites.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (18.00 Credits)			
ARC 1126C	Architectural Drawing 1	4	
BCN 1275	Building Construction Plans Interpretation 2	3	
ARC 1949	Co-op Work Experience 1	3	
BCT 1770	Building Construction Estimating Fundamentals	3	
BCN 1272	Building Construction Plans Interpretation 1	3	
BCT 1771	Building Construction Advanced Estimating	3	

Miami Dade College

Business Entrepreneurship Operations – Family-Owned Business
College Credit Certificate | Code: 65109 | 18 Credits
CIP: (0552070309)
Effective Term: Spring 2021 (2213)

The Business Entrepreneurship Operations College Credit Certificate is designed to prepare students for employment in entry-level positions or opening their own business or venture in the following areas: Family-Owned Business, Start-Up Venture, and Social Venture. Students may select one of the 3 options, but the certificate is awarded only once.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (18.00 Credits Required)			
GEB 2112	Introduction to Entrepreneurship	3	
ENT 2270	Family Business Management	3	
MAR 1720	Marketing in a Digital World	3	
ACG 2450	Microcomputers in Accounting	3	
or			
TAX 2021	Taxation of Business Organizations	3	
ENT 2212	Entrepreneurial Leadership	3	
BUL 2241	Business Law I	3	

NOTE: All courses must be met with a grade of "C" or higher.

Miami Dade College

Business Entrepreneurship Operations – Social Venture
College Credit Certificate | Code: 65111 | 18 Credits
CIP (0552070309)
Effective Term: Spring 2021 (2213)

The Business Entrepreneurship Operations College Credit Certificate is designed to prepare students for employment in entry-level positions or opening their own business or venture in the following areas: Family-Owned Business, Start-Up Venture, and Social Venture. Students may select one of the 3 options, but the certificate is awarded only once.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (18.00 Credits Required)			
ENT 1501	Fundamentals of Changemaking and Social Innovation	3	
ENT 2201	Introduction to Lean Start-Up	3	
ENT 2502	Starting and Growing a Social Venture	3	
ENT 2212	Entrepreneurial Leadership	3	
MAR 1720	Marketing in a Digital World	3	
ENT 2421	Funding Your Venture	3	

NOTE: All courses must be met with a grade of "C" or higher.

Miami Dade College

Business Entrepreneurship Operations – Start-Up Venture
College Credit Certificate | Code: 65110 | 18 Credits
CIP: (0552070309)
Effective Term: Spring 2021 (2213)

The Business Entrepreneurship Operations College Credit Certificate is designed to prepare students for employment in entry-level positions or opening their own business or venture in the following areas: Family-Owned Business, Start-Up Venture, and Social Venture. Students may select one of the 3 options, but the certificate is awarded only once.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (18.00 Credits Required)			
GEB 2112	Introduction to Entrepreneurship	3	
ENT 2201	Introduction to Lean Start-Up	3	
MAR 1720	Marketing in a Digital World	3	
ENT 2421	Funding Your Venture	3	
MAR 2704	Marketing Web Analytics	3	
ACG 2450	Microcomputers in Accounting	3	
Or			
TAX 2021	Taxation of Business Organizations	3	

NOTE: All courses must be met with a grade of "C" or higher.

Miami Dade College

Business Entrepreneurship Specialist – Family-Owned Business
College Credit Certificate | Code: 65098 | 12 Credits
CIP: (0552070308**)**
Effective Term: Spring 2020 (2203)

The Business Entrepreneurship Specialist College Credit Certificate is designed to prepare students for employment in entry-level positions or opening their own business or venture in the following areas: Family-Owned Business, Start-Up Venture, and Social Venture. Students may select one of the 3 options, but the certificate is awarded only once.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (12.00 Credits Required)			
GEB 2112	Introduction to Entrepreneurship	3	
ENT 2270	Family Business Management	3	
MAR 1720	Marketing in a Digital World	3	
ACG 2450	Microcomputers in Accounting	3	
Or			
TAX 2021	Taxation of Business Organizations	3	

NOTE: All courses must be met with a grade of "C" or higher.

Miami Dade College

Business Entrepreneurship Specialist – Social Venture
College Credit Certificate | Code: 65097 | 12 Credits
CIP (0552070308**)**
Effective Term: Spring 2020 (2203)

The Business Entrepreneurship Specialist College Credit Certificate is designed to prepare students for employment in entry-level positions or opening their own business or venture in the following areas: Family-Owned Business, Start-Up Venture, and Social Venture. Students may select one of the 3 options, but the certificate is awarded only once.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (12.00 Credits Required)			
ENT 1501	Fundamentals of Changemaking and Social Innovation	3	
ENT 2201	Introduction to Lean Start-Up	3	
ENT 2502	Starting and Growing a Social Venture	3	
ENT 2212	Entrepreneurial Leadership	3	

NOTE: All courses must be met with a grade of "C" or higher.

Miami Dade College

Business Entrepreneurship Specialist – Start-Up Venture
College Credit Certificate | Code: 65101 | 12 Credits
CIP: (0552070308**)**
Effective Term: Spring 2020 (2203)

The Business Entrepreneurship Specialist College Credit Certificate is designed to prepare students for employment in entry-level positions or opening their own business or venture in the following areas: Family-Owned Business, Start-Up Venture, and Social Venture. Students may select one of the 3 options, but the certificate is awarded only once.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (12.00 Credits Required)			
GEB 2112	Introduction to Entrepreneurship	3	
ENT 2201	Introduction to Lean Start-Up	3	
MAR 1720	Marketing in a Digital World	3	
ENT 2421	Funding Your Venture	3	

NOTE: All courses must be met with a grade of "C" or higher.

Miami Dade College

Business Industry Operations
College Credit Certificate | Code: 65061 | 9 Credits
CIP (0652020502**)**
Effective Term: Fall 2022 (2227)

The 9-credit-hour certificate program in Business Industry Operations, includes a series of courses that offer students the technical knowledge and skills needed to prepare for further education and careers in a variety of industries aligned to a student's pathway.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (9.00 Credits Required)			
Group A – Foundation Courses (6.00 Credits required)			
ENC 1101	English Composition I	3	Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
GEB 1011	Principles of Business	3	
Group B – Industry Course (3.00 Credits required)			
ACG 1403	Excel for Business	3	
CAP 1788	Introduction to Data Analytics	4	
ECO 2013	Principles of Economics (Macro)	3	
EEC 2002	Operation of an Early Childhood Facility	3	
FSE 1000	History of Funeral Service	3	
FSE 2202	Funeral Service Business Management	3	
GEB 1000	Business Career Strategies	3	
GEB 2112	Introduction to Entrepreneurship	3	
HFT 1000	Introduction to Hospitality	3	
HLP 1081	Fitness and Wellness for Life	3	
HOS 1010	Horticulture 1	3	
HUN 1201	Essentials of Human Nutrition	3	
MAN 2021	Principles of Management	3	
MAN 2300	Principles of Management	3	
MAR 1011	Principles of Marketing	3	
TAX 2000	Income Tax	3	
TRA 1154	Introduction to Supply Chain	3	

NOTE: All courses must be met with a grade of "C" or higher.

Miami Dade College

Business Intelligence Professional
College Credit Certificate | Code: 66038 | 20 Credits
CIP (0552130101**)**
Effective Term: Fall 2023 (2237)

The Business Intelligence Professional College Credit Certificate prepares students for employment in various business intelligence positions and/or for continued studies in the Business Intelligence Specialist AS degree. Students will learn to work with a variety of datasets and transform them into valuable insights via visualizations and reports.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR CORSE REQUIREMENTS (20.00 Credits)			
CGS 1540C	Database Concepts and Design	4	
CAP 1788	Introduction to Data Analytics	4	
CAP 2761C	Intermediate Analytics	4	Prerequisites: CAP 1788 and CGS 1540C
CAP 2791C	Power BI: Data Preparation and Modeling	4	Prerequisites: CAP 1788 and CGS 1540C
CAP 2743C	Power BI: Data Visualization and Analysis	4	Prerequisite: CAP 2791C

Miami Dade College

Business Operations - Business Management
College Credit Certificate | Code: 65022 | 18 Credits
CIP (0552020104**)**
Effective Term: Fall 2017 (2177)

The Business Operations College Credit Certificate program is the second in a series of three College Credit Certificate programs designed to prepare students for employment and advancement in the following areas: accounting/budgeting, business/ management, customer service, finance, human resources, international business, marketing, nonprofit, real estate, retail and small business. There is only one College Credit Certificate in Business Operations. Students may select one of the 4 options, but the certificate is awarded only once.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (18.00 Credits)			
GEB 1011	Principles of Business	3	
MAN 2021	Principles of Management	3	
MAN 2604	Managing in a Multi-Cultural Environment	3	
MAR 1011	Principles of Marketing	3	
MNA 1345	Effective Supervision	3	
SBM 1000	Small Business Management	3	

Miami Dade College

Business Operations - Human Resources
College Credit Certificate | Code: 65025 | 18 Credits
CIP (0552020104**)**
Effective Term: Fall 2017 (2177)

The Business Operations College Credit Certificate program is the second in a series of three College Credit Certificate programs designed to prepare students for employment and advancement in the following areas: accounting/budgeting, business/ management, customer service, finance, human resources, international business, marketing, nonprofit, real estate, retail and small business. There is only one College Credit Certificate in Business Operations. Students may select one of the 4 options, but the certificate is awarded only once.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (18.00 Credits)			
GEB 1011	Principles of Business	3	
MAN 2021	Principles of Management	3	
MAN 2300	Human Resources Management	3	
MNA 1345	Effective Supervision	3	
MNA 2120	Human Relations in Business	3	
MAR 2101	Social Media Marketing	3	

Miami Dade College

Business Operations - Marketing
College Credit Certificate | Code: 65027 | 18 Credits
CIP (0552020104**)**
Effective Term: Fall 2017 (2177)

The Business Operations College Credit Certificate program is the second in a series of three College Credit Certificate programs designed to prepare students for employment and advancement in the following areas: accounting/budgeting, business/ management, customer service, finance, human resources, international business, marketing, nonprofit, real estate, retail and small business. There is only one College Credit Certificate in Business Operations. Students may select one of the 4 options, but the certificate is awarded only once.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (18.00 Credits)			
MAR 1011	Principles of Marketing	3	
MAR 1720	Marketing in a Digital World	3	
MAR 2101	Social Media Marketing	3	
MAR 2150	International Marketing	3	
MAR 2520	Hispanic Marketing	3	
MKA 1511	Principles of Advertising and Copywriting	3	

Miami Dade College

Business Operations - Small Business
College Credit Certificate | Code: 65031 | 18 Credits
CIP (0552020104**)**
Effective Term: Fall 2017 (2177)

The Business Operations College Credit Certificate program is the second in a series of three College Credit Certificate programs designed to prepare students for employment and advancement in the following areas: accounting/budgeting, business/ management, customer service, finance, human resources, international business, marketing, nonprofit, real estate, retail and small business. There is only one College Credit Certificate in Business Operations. Students may select one of the 4 options, but the certificate is awarded only once.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (18.00 Credits)			
BUL 2241	Business Law 1	3	
GEB 1011	Principles of Business	3	
GEB 2112	Introduction to Entrepreneurship	3	
MAN 2021	Principles of Management	3	
MAR 1011	Principles of Marketing	3	
SBM 1000	Small Business Management	3	

Miami Dade College

Business Specialist - Business Management
College Credit Certificate | Code: 65011 | 12 Credits
CIP (0552020103**)**
Effective Date: Fall 2017 (2177)

The Business Specialist College Credit Certificate program is the first in a series of three College Credit Certificate programs designed to prepare students for employment in entry-level positions in the following areas: accounting/budgeting, business management, finance, human resources, international business, marketing, small business. There is only one College Credit Certificate in Business Specialist. Students may select one of the 6 options, but the certificate is awarded only once.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (12.00 Credits)			
GEB 1011	Principles of Business	3	
MAR 1011	Principles of Marketing	3	
MNA 1345	Effective Supervision	3	
SBM 1000	Small Business Management	3	

Miami Dade College

Business Specialist – General Business
College Credit Certificate | Code: 65100 | 12 Credits
CIP (0552020103)
Effective Term: Fall 2018 (2187)

The Business Specialist College Credit Certificate is the first in a series of three College Credit Certificate programs designed to prepare students for employment in entry-level positions in the following areas: accounting/ budgeting, business management, finance, general business, human resources, international business, marketing, and small business. Students may select one of the 6 options, but the certificate is awarded only once.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (12.00 Credits Required)			
Group A – Foundation Courses (6.00 credits)			
ENC 1101	English Composition I	3	
GEB 1011	Principles of Business	3	

Group B – Business Course (3.00 credits)
ACG* BUL* ECO* FIN1* FIN2* GEB* MAN1* MAN2* MAR* MAR1011- MAR2150 OST* PUR* QMB* SBM* TAX*

Group C – Career Area of Interest Course (3.00 credits)
Any transferrable Credit Type 1 or Credit Type 2 course.

NOTE: All courses must be met with a grade of "C" or higher.

Miami Dade College

Business Specialist - Human Resources
College Credit Certificate | Code: 65014 | 12 Credits
CIP (0552020103**)**
Effective Term: Fall 2017 (2177)

The Business Specialist College Credit Certificate program is the first in a series of three College Credit Certificate programs designed to prepare students for employment in entry-level positions in the following areas: accounting/budgeting, business management, finance, human resources, international business, marketing, small business. There is only one College Credit Certificate in Business Specialist. Students may select one of the 6 options, but the certificate is awarded only once.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (12.00 Credits)			
MAN 2021	Principles of Management	3	
MNA 1345	Effective Supervision	3	
MAN 2300	Human Resources Management	3	
MNA 2120	Human Relations in Business	3	

Miami Dade College

Business Specialist - International Business
College Credit Certificate | Code: 65015 | 12 Credits
CIP (0552020103**)**
Effective Term: Fall 2017 (2177)

The Business Specialist College Credit Certificate program is the first in a series of three College Credit Certificate programs designed to prepare students for employment in entry-level positions in the following areas: accounting/budgeting, business management, finance, human resources, international business, marketing, small business. There is only one College Credit Certificate in Business Specialist. Students may select one of the 6 options, but the certificate is awarded only once.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (12.00 Credits)			
GEB 1011	Principles of Business	3	
GEB 2350	Introduction to International Business	3	
MAN 2604	Managing in a Multi-Cultural Environment	3	
MAR 2150	International Marketing	3	

Miami Dade College

Business Specialist - Marketing
College Credit Certificate | Code: 65016 | 12 Credits
CIP (0552020103**)**
Effective Term: Fall 2017 (2177)

The Business Specialist College Credit Certificate program is the first in a series of three College Credit Certificate programs designed to prepare students for employment in entry-level positions in the following areas: accounting/budgeting, business management, finance, human resources, international business, marketing, small business. There is only one College Credit Certificate in Business Specialist. Students may select one of the 6 options, but the certificate is awarded only once.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (12.00 Credits)			
MAR 1011	Principles of Marketing	3	
MAR 1720	Marketing in a Digital World	3	
MAR 2101	Social Media Marketing	3	
MKA 1511	Principles of Advertising and Copywriting	3	

Miami Dade College

Business Specialist - Small Business
College Credit Certificate | Code: 65020 | 12 Credits
CIP (0552020103**)**
Effective Term: Fall 2017 (2177)

The Business Specialist College Credit Certificate program is the first in a series of three College Credit Certificate programs designed to prepare students for employment in entry-level positions in the following areas: accounting/budgeting, business management, finance, human resources, international business, marketing, small business. There is only one College Credit Certificate in Business Specialist. Students may select one of the 6 options, but the certificate is awarded only once.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (12.00 Credits)			
GEB 1011	Principles of Business	3	
GEB 2112	Introduction to Entrepreneurship	3	
MAN 2021	Principles of Management	3	
SBM 1000	Small Business Management	3	

Miami Dade College

Chef Apprentice
College Credit Certificate | 65059 | 12 Credits
CIP:
Effective Term: Fall 2017 (2177)

The Chef Apprentice Certificate is designed to prepare students with a theoretical and practical foundation for a successful career in the culinary industry. Credits earned can be applied to Associate in Science degree in Culinary Arts Management, which may be transferrable to upper division public institutions. *Students will be given opportunity to take the Food Safety exam for ServSafe Florida State Certification (State mandated for food handlers in Florida).

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (12.00 Credits)			
FSS 1200	Culinary Terminology and Procedures	3	
FSS 1204L	Food Production 2	3	
FSS 1202L	Food Production 1	3	
FSS 2248C	Garde Manger	3	

Miami Dade College

Cisco Certified Network Associate (CCNA)
College Credit Certificate | Code: 66050 | 21 credits
CIP: (0511100114**)**
Effective Term: Fall 2023 (2237)

The Cisco Certified Network Associate College Credit Certificate program is designed to provide you with an opportunity to establish a foundation in the field of networking technologies and security, with a concentration in Cisco network design and implementation. Program coursework will additionally help you prepare for a variety of industry-recognized certifications, including: CompTIA Network+, CompTIA Security+, and Cisco Certified Network Associate (CCNA).

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (21.00 Credits)			
CTS 1120	Cybersecurity Fundamentals	4	Recommended preparation: prior knowledge of Networking Technologies
CTS 1134	Networking Technologies	4	
CTS 1650	CCNA 1: Cisco Fundamentals	4	
CTS 1651	CCNA 2: Routing and Switching	4	Prerequisite: CTS 1650
CTS 2652	CCNA 3: Advanced Routing and Switching	4	Prerequisite: CTS 1651
Select one course from the following:			
CIS 1949	Co-op Work Experience 1: CIS	1	
CIS 2900	Directed Information Technology Study	1	

Miami Dade College

Commercial Transport Pilot
College Credit Certificate | Code: 68012 | 24 credits
CIP: (0649010202)
Effective Date:

The College Credit Certificate (CCC) in Commercial Transport Pilot indicates the student has successfully passed the Federal Aviation Administration (FAA) exams to earn the Commercial Pilot Certificate and act as pilot-in-command for compensation or hire, as well as carry persons or property for compensation or hire, as outlined in Federal Aviation Regulations (FARs) Part 61.133.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (24.00 Credits)			
ASC 1210	Aviation Meteorology	3	
ATF 1100L	Private Pilot Flight Accelerated*	3	ATT1100
ATT 1100	Private Pilot Theory	3	ASC1210
ATT 2120	Instrument Pilot Theory	4	PPL
ATF 2305L	Instrument Pilot Flight Accelerated	3	FAA Private Pilot Certificate; ATT2120
ATT 2110	Commercial Pilot Theory	3	ASC1210; ATF1100; ATT 1100; PPL
ATF 2210L	Commercial Pilot Flight Accelerated	3	Instrument Rating
ATT 2133	Multi Engine Pilot Theory	2	

NOTE: This course is not eligible for Veteran's Affairs Benefits.

Miami Dade College

Computer Aided Design Assistant
College Credit Certificate | Code: 66070 | 14 Credits
CIP:
Effective Date:

The Computer-Aided Design Assistant College Credit Certificate program is designed to prepare students to work as CAD assistants in an architectural office by acquiring a basic understanding of the architectural graphic skills needed to produce working and presentation drawings.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (22.00 Credits)			
ARC 1115	Architectural Communications 1	2	
ARC 1126C	Architectural Drawing 1	4	
ARC 2171	Computer Aided Drafting 1	4	Pre-Req: ARC 1126C or ARC 2461
ARC 2172	Computer Aided Drafting 2	4	Pre-Req: ARC 2171

Miami Dade College

Computer Aided Design Operator
College Credit Certificate | Code: 66071 | 22 Credits
CIP:
Effective Date:

The Computer-Aided Design Operator College Credit Certificate program is designed to prepare students in an architectural office by obtaining intermediate skills in architectural graphics needed to produce working and presentation drawings. After successfully completing the following courses, students can obtain employment assisting architects and drafters with computer-aided drawings and design presentations.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (22.00 credits)			
ARC 1115	Architectural Communications 1	2	
ARC 1126C	Architectural Drawing 1	4	
ARC 2056	Computer Aided Architectural Presentation	4	
ARC 2171	Computer Aided Drafting 1	4	Pre-Req: ARC 1126C or ARC 2461
ARC 2172	Computer Aided Drafting 2	4	Pre-Req: ARC 2171
ARC 2461	Architectural Materials and Construction 1	4	Pre-Req: ARC 1126C or BCN 1251

Miami Dade College

Computer Programmer - Business Applications
College Credit Certificate | Code: 66045 | 36 Credits
CIP: (0511020200)
Effective Term: Fall 2023 (2237)

The College Credit Certificate program in Computer Programmer - Business Applications is designed to provide an opportunity to establish a foundation in computer programming for employment in scientific, commercial, industrial and government data processing applications. Graduates are prepared for positions as entry-level programmers, programmer specialists, and software developers for both applications and systems software.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (16.00 Credits)			
CGS 1060C	Intro to Computer Technology and Applications	4	
CGS 1540C	Database Concepts and Design	4	
COP 1334	Introduction to C++ Programming	4	
COP 2800	Java Programming	4	Prerequisites: COP 1047C, COP 1334, or COP 2270
PROGRAM CONCENTRATION CORE (8.00 Credit)			
ACG 2021	Financial Accounting	3	Corequisite: ACG 2021L
ACG 2021L	Financial Accounting Lab	1	Corequisite: ACG 2021
COP 1047C	Introduction to Python Programming	4	
PROGRAM ELECTIVES (12.00 Credits)			
Must take 4 credits from the following group:			
COP 2335	Object Oriented Programming Using C++	4	Prerequisite: COP 1334
COP 2805C	Advanced Java Programming	4	Prerequisite: COP 2800
- - - And - - -			
Must take 8 credits from the following group:			
CAI*, COP 2*			
CEN 2211	C/C++ Programming for Embedded Devices	4	Prerequisite: COP 1334; Corequisite: EET 1033C
CEN 2212C	Introduction to Programming the IoT	4	Prerequisite: CEN 2211 and EET 1033C
CGS 2091	Professional Ethics and Social Issues in CS	4	
CIS 2331	Systems Analysis, Design and Implementation	5	
COP 1332	Introduction to Visual Basic Programming	4	Pre/Corequisite: CGS 1060C
CTS 1800	Introduction to Web Development	4	
CTS 2148C	IT Project Management	4	
CTS 2440	Introduction to Oracle: SQL and PL/SQL	4	
CTS 2466C	Internet of Things (IoT) Development with C#	4	Prerequisite: CEN 2211
EET 1033C	Electrical Fundamentals	4	
GEB 1432	Applied Artificial Intelligence (AI) in Business	3	
PHI 2680	Artificial Intelligence (AI) Ethics	3	

Miami Dade College

Computer Programmer - Mobile Applications Development
College Credit Certificate | Code: 66036 | 36 Credits
CIP:
Effective Term: Fall 2020 (2207)

The College Credit Certificate program is designed to provide an opportunity to establish a basic foundation in computer programming for employment in scientific, commercial, industrial and government data processing applications. The Mobile Applications Development concentration additionally offers hands-on instruction with current technology for Apple and Android mobile device platforms.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (16.00 Credits)			
CGS 1060C	Introduction to Computer Technology & Applications	4	
CGS 1540C	Database Concepts and Design	4	
COP 1334	Introduction to C++ Programming	4	
COP 2800	Java Programming	4	
PROGRAM CONCENTRATION CORE (16.00 Credits)			
COP 2654	iPhone Application Development 1	4	
COP 2658	iPhone Application Development 2	4	
COP 2660	Android Application Development 1	4	
COP 2662	Android Application Development 2	4	
PROGRAM ELECTIVES (4.00 Credits)			
Choose 4 credits from the following options:			
CGS 2091	Professional Ethics and Social Issues in CS	4	
COP 1047C	Python Programming	4	
COP 2335	Object Oriented Programming using C++	4	
COP 2805	Advanced Java Programming	4	
COP 2842	Developing Websites using PHP/MYSQL	4	
CTS 1800	Introduction to Web Development	4	

Miami Dade College

Crime Scene Technician
College Credit Certificate| 66072 |28 Credits
CIP( )
Effective Term: Fall 2017 (2017-1)

The College Credit Certificate in Crime Scene Technician will prepare students for employment in the field of criminalistics with a specialty in Crime Scene Investigation or Forensic Science. The student can serve as, but is not limited to, positions of Forensic Science Technician (SOC 194092), Crime Scene Technician, Medical Examiner Investigator, Medical Investigator, Insurance Investigator, Legal Investigator, Forensic Paralegal, Crime Scene Investigator, and Laboratory Technician. Students may also continue their formal education with the College and AS in Crime Scene Technology.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (9.00 credits)			
SPC 1017	Fundamentals of Speech	3	
CLP 100	Psychology of Personal	3	
BSC 1084	Functional Human Anatomy	3	

The following course(s) are not allowed for credit in this area. All Labs.

PROGRAM CORE REQUIRED (19.00 credits)			
CCJ 1020	Introduction to Criminal Justice	3	
CCJ 1191	Human Behavior in Criminal Justice	3	
CHS 1522C	Forensic Science 1	4	
CJE 1640	Crime Scene Technology	3	
CJE 2600	Criminal Investigation	3	
CJE 2671	Basic Fingerprinting	3	

The following course(s) are not allowed for credit in this area. All Labs.

Miami Dade College

Cruise Line Operations
College Credit Certificate | Code: 65053 | 18 Credits
CIP: (0252090102**)**
Effective Date: Summer 2019 (2195)

All departments unrelated to navigation engine and entertainment, fall under the hotel division. This includes all concessionaires, housekeeping, food and beverage and pursers. Jobs in the hotel department on a cruise ship are very similar to jobs you will find in a five-star hotel or resort. The hotel manager oversees all shipboard services and is responsible for supervising all staff and crew in these departments.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (18.00 Credits)			
HFT 1000	Introduction to Hospitality	3	
HFT 2241	Leadership and Quality Assurance Management	3	
HFT 2772	Introduction to Cruise Line Industry	3	
HFT 1220	Supervisory Development	3	
HFT 2410	Front Office Procedures and Lodging Operations	3	
HFT 2501	Hospitality Sales	3	

Miami Dade College

Culinary Arts Management Operations
College Credit Certificate | Code: 65060 | 18 Credits
CIP (1612050401)
Effective Term: Fall 2022 (2227)

The Culinary Arts Management Operations College Credit Certificate is designed to prepare students with an in-depth study of food production, and a practical foundation in international cuisine for a successful career in the culinary industry. Credits earned can be applied to an Associate in Arts degree or an Associate in Science degree in Culinary Arts Management, which may be transferrable to upper division public institutions. *Students will be given opportunity to take the Food Safety exam for ServSafe Florida State Certification (State mandated for food handlers in Florida).

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (18.00 Credits)			
FSS 1200	Culinary Terminology and Procedures	3	Corequisite: FSS 1202C
FSS 1202C	Food Production 1 – Fundamental Skills	3	Corequisite: FSS 1200
FSS 1204C	Food Production 2 – American Regional Cuisine	3	Prerequisites: FSS 1200, FSS 1202C
FSS 1246C	Basic Baking – Foundational Skills	3	Prerequisites: FSS 1200, FSS 1202C
FSS 2242C	International Cuisines	3	Prerequisites: FSS 1200, FSS 1202C, FSS 1204C, FSS 1246C, FSS 2248C
FSS 2248C	Garde Manger	3	Prerequisites: FSS 1200, FSS 1202C, FSS 1246C

Miami Dade College

Cybersecurity Analyst
College Credit Certificate | Code: 66061 | 24 credits
CIP (0511100314**)**
Effective Term: Fall 2023 (2237)

The College Credit Certificate (CCC) in Cybersecurity offers essential cybersecurity skills and knowledge needed to secure networks, infrastructure, and use strategies to reduce the risk of incidents. The program curriculum offers hands-on learning to defend against cyber-attacks and the opportunity to prepare for multiple in-demand industry certifications.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (24 Credits)			
CIS 1531	Introduction to Secure Scripting	4	
CIS 2350	Cybersecurity Analysis (CySA+)	4	Prerequisites: CTS 1120, CTS 1134
CTS 1111	Linux +	4	
CTS 1120	Cybersecurity Fundamentals	4	
CTS 1134	Networking Technologies	4	
CTS 2314	Network Defense and Countermeasures	4	Prerequisites: CTS 1120, CTS 1134

Miami Dade College

Digital Marketing Specialist
College Credit Certificate | Code: 65096 | 12 Credits
CIP:
Effective Term: Spring 2020 (2203)

The Digital Marketing Specialist Certificate is designed to prepare students to build and execute a digital marketing plan using digital tools to design, distribute, promote, and price a product or service. Graduates will understand how to connect with consumers using multiple digital platforms to create effective targeted promotional campaigns.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (12.00 Credits)			
MAR 1011	Principles of Marketing	3	
MAR 1720	Marketing in a Digital World	3	
MAR 2101	Social Media Marketing	3	
MAR 2704	Marketing Web Analytics	3	

Miami Dade College

Digital Marketing Strategy
College Credit Certificate | Code: 65102 | 18 Credits
CIP (0252070103**)**
Effective Term: Fall 2019 (2197)

The Digital Marketing Strategy College Credit Certificate is designed to prepare students to design, implement, manage and analyze digital marketing strategies and campaigns. Graduates will understand how to connect with consumers using multiple digital platforms to create effective customer-focused promotional campaigns.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (18.00 Credits)			
MAR 1011	Principles of Marketing	3	
MAR 1720	Marketing in a Digital World	3	
MAR 2101	Social Media Marketing	3	
MAR 2704	Marketing Web Analytics	3	
MAR 2703	Marketing Content, Branding and Strategy	3	
MAR 2952	Digital Marketing Capstone	3	

Miami Dade College

Early Childhood Education - Administrator
College Credit Certificate | 60004 | 12 Credits
CIP (0419070906**)**
Effective Term: Fall 2017 (2177)

This is a College Credit Certificate with a specialization in Child Care Management. The purpose of this program is to prepare students as early childhood education administrators with the knowledge and skills to effectively manage a quality childcare program or to provide supplementary training for persons previously or currently employed in these occupations. This CCC will allow its holder to apply for an Advanced Director's Credential or continue their education.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (12.00 Credits)			
EEC 2002	Operation of an Early Childhood Facility	3	
EEC 2520	Early Childhood Organization Leadership and Management	3	
EEC 2523	Programming & Management for Early Childhood Administrators	3	
EEC 2527	Legal & Financial Issue in Child Care	3	

Miami Dade College

Early Childhood Education - Child Development Early Intervention Specialization
College Credit Certificate | Code: 60007 | 36 Credits
CIP: (0419070904)
Effective Term: Spring 2020 (2203)

This is a College Credit Certificate (CCC) in Early Childhood Education (ECE) with a specialization in Child Development Early Intervention. The purpose of this program is to prepare students as early childhood educators who can identify learning differences in young children and meet their educational needs.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (36.00 Credits)			
Group A:	**Infant/Toddler Specialization (12.00 credits)**		
EEC 1001	Introduction to Early Childhood Infant Toddler Education	3	
EEC 1522	Infant-Toddler Environments	3	
EEC 2201	Developing Curriculum for Infants and Toddlers	3	
EEC 2407	Facilitating Social Development	3	
---OR---			
Group B:	**Preschool Specialization (12.00 Credits)**		
EEC 1000	Introduction to Early Childhood Education	3	
EEC 1200	Early Childhood Curriculum I	3	
EEC 1311	Early Childhood Curriculum II	3	
EEC 2202	Program Development in Early Childhood Education	3	
--- AND ---			
Group C:	**Inclusion Specialization (12.00 Credits)**		
EEC 1752	Knowing and Understanding All Young Children	3	
EEC 1753	Observing and Assessing All Young Children	3	
EEC 1713	Helping All Young Children Become Independent Learners	3	
EEC 1308	Classrooms for All Young Children	3	
---AND---			
General Education Courses (12.00 Credits)			
AMH 2020	History of the United States since 1877	3	
ANT 2410	Introduction to Cultural Anthropology	3	
ARH 1000	Art Appreciation	3	
ARH 2740	Cinema Appreciation	3	
BSC 1005	General Education Biology	3	
BSC 2020	Human Biology: Fundamental of Anatomy & Physiology	3	
CLP 1006	Psychology of Personal Effectiveness	3	
DAN 2100	Dance Appreciation	3	
DEP 2000	Human Growth & Development	3	
ENC 1101	English Composition 1	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
ENC 1102	English Composition 2	3	Prerequisite: ENC 1101
HUM 1020	Humanities	3	
HUN 1201	Essentials of Nutrition	3	
ISS 1120	The Social Environment	3	
ISS 1161	Individual in Society	3	
LIT 2120	Survey of World Literature	3	Prerequisite: ENC 1102
LIT 2480	Issues in Literature & Culture	3	Prerequisite: ENC 1102
MAC 1105	College Algebra	3	Prerequisite: MAT 1033

MGF 1131	Mathematics in Context	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
MGF 1130	Mathematical Thinking	3	Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
MUL 1010	Music Appreciation	3	
MUL 2380	Jazz & Popular Music in America	3	
PHI 2010	Introduction to Philosophy	3	
PHI 2604	Critical Thinking/Ethics	3	Prerequisite: ENC 1101
PSC 1515	Energy in the Natural Environment	3	
PSY 2012	Introduction to Psychology	3	
SPC 1017	Fundamentals of Speech Communications	3	
SYG 2000	Introduction to Sociology	3	
THE 2000	Theatre Appreciation	3	

Miami Dade College

Early Childhood Education - Early Childhood Education Inclusion Specialization
College Credit Certificate | Code: 60006 | 12 Credits
CIP (0413121000**)**
Effective Term: Spring 2020 (2203)

This is a College Credit Certificate in Early Childhood Education with a specialization in Early Childhood Inclusion. This is an introductory CCC for care practitioners who need training in addition to their initial credentials, i.e., Florida Child Care Professional Certificate (FCCPC) or the National Child Development Associate (N-CDA) credential in order to provide high quality early childhood education for all children.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (12.00 Credits)			
EEC 1752	Knowing and Understanding All Young Children	3	
EEC 1753	Observing and Assessing All Young Children	3	
EEC 1713	Helping All Young Children Become Independent Learners	3	
EEC 1308	Classrooms for All Young Children	3	

Miami Dade College

Early Childhood Education – Preschool
College Credit Certificate | Code: 60003 | 12 Credits
CIP (0419070908**)**
Effective Term: Fall 2020 (2207)

This is a College Credit Certificate in early childhood education with a Preschool specialization. The purpose of this program is to prepare students as early childhood education caregivers with a preschool specialization or to provide supplementary training for persons previously or currently employed in these occupations. This CCC will allow its holder to apply for a National Child Development Associate credential enabling this student to pursue work as a childcare provider nationally or continue their education.

Course	Course Title	Credits	Pre-/Co-Requisites
COURSE REQUIREMENTS (12.00 Credits)			
EEC 1000	Introduction to Early Childhood Education	3	
EEC 1200	Early Childhood Curriculum 1	3	
EEC 1311	Early Childhood Curriculum 2	3	
EEC 2407	Facilitating Social Development	3	

Miami Dade College

Emergency Medical Technician
College Credit Certificate | Code: 63013 | 12 credits
CIP (0351090415**)**
Effective Term: Spring 2024 (2243)

The Emergency Medical Technician – Basic College Credit Certificate is a one-semester program, which prepares students to function in the hospital and pre-hospital environment. Graduates of this program can perform clinical data collection, patient assessment and provide immediate care and safe relocation of the acutely ill. Satisfactory completion of this program will qualify the graduate to sit for the State and/or National EMT Certification Examination. This program is approved by the State of Florida, Department of Health and Rehabilitative Services.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE ELECTIVES (2.00 credits)			
EMS 1059	Emergency Medical Responder	1	Corequisite: EMS 1059L
EMS 1059L	Emergency Medical Responder Laboratory	1	Corequisite: EMS 1059
---OR---			
EMS 9995	Emergency Medical Responder	2	
MAJOR COURSE REQUIREMENTS (10.00 credits)			
EMS 1119	Emergency Medical Technician	4	Prerequisites: EMS 1059, 1059L; Corequisites: EMS 1119L, 1431
EMS 1119L	Emergency Medical Technician Lab and Clinic	3	Prerequisites: EMS 1059, 1059L; Corequisites: EMS 1119, 1431
EMS 1431	EMT Hospital/Field Experience	3	Corequisites: EMS 1119, 1119L

Miami Dade College

Endoscopic Technician
College Credit Certificate | Code: 63030 |24 Credits
CIP (0351099902**)**
Effective Term: Summer 2023 (2235)

The College Credit Certificate in Endoscopy Technician is designed to educate and prepare graduates with skills required for entry- level employment as a member of the healthcare team. In addition, students will acquire extensive knowledge of legal and ethical responsibilities, anatomy, physiology, pathophysiology, microbiology, aseptic techniques, patient care procedures, patient safety, and use and care of equipment and supplies.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR CORE REQUIREMENTS (24.00 credits)			
HIM 2472	Medical Terminology	3	
STS 1304L	Operating Room Techniques Laboratory	3	
STS 1307	Surgical Equipment and Instrumentation	3	
STS 1323	Surgical Procedures I	3	
STS 1925C	Endoscopy Technician Theory 1 and Lab	3	
STS 1926C	Endoscopy Technician Theory 2 and Lab	3	Prerequisite: STS 1925C
STS 2179	Surgical Biomedical Fundamentals	3	
STS 2944	Surgical Clinical I	3	

Miami Dade College

Engineering Technology Support Specialist
College Credit Certificate | Code: 66052 | 18 credits
CIP: (0615000007)
Effective Date:

This program offers a sequence of courses that provides students with the relevant technical knowledge and skills needed to prepare for further education and careers in the manufacturing career cluster.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (18.00 Credits)			
EET 1082	Introduction to Electronics	3	
ETD 1340	AutoCAD	3	
ETI 1152C	Measurement and Instrumentation	3	
ETI 1172	Introduction to Quality Assurance	3	
ETI 1701	Industrial Safety	3	
ETI 2404	Advanced Manufacturing Technology	3	

Miami Dade College

Enterprise Cloud Computing
College Credit Certificate | Code: 66058 | 24 Credits
CIP: (0511100116)
Effective Term: Summer 2021 (2215)
The Enterprise Cloud Computing Credit Certificate program is designed to provide an opportunity to establish foundation in architect scalable, highly available application solutions that leverage cloud computing services. Utilizing best practices focusing on cloud security, cost, and reliability, graduates of the CCC in Enterprise Cloud Computing will utilize core design patterns and infrastructure expertise to implement solutions to deploy and maintain workloads and applications. Graduates are prepared for positions as entry-level Solutions Architect, Cloud Architect, Cloud Engineer and Cloud Application Architect.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR CORE REQUIREMENTS (24.00 Credits)			
CGS 1540C	Database Concepts Design	4	
CTS 1111	Linux +	4	
CTS 1134	Networking Technologies	4	
CTS 1145	Cloud Essentials	4	
CTS 2375C	Cloud Infrastructure and Services	4	Pre-Req CTS 1145 Co-Req CTS 2960
CTS 2960	Cloud Computing Capstone	4	Departmental Approval

Miami Dade College

Film Production Fundamentals
College Credit Certificate | Code: 61001 | 24 Credits
CIP (0650060203**)**
Effective Term: Fall 2017 (2177)

The Film Production Fundamentals College Credit Certificate (CCC) is designed to prepare students for entry-level employment in the motion picture industry. Students will understand the fundamentals in the following skills: lighting, grip, camera, audio recording, and editing.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (24.00 Credits)			
CGS 1060C	Introduction to Computer Technology & Applications	4	
FIL 1100	Screenwriting 1	3	
FIL 1420C	Film Production 1: Introduction to the Filmmaking Process	4	Corequisite: FIL 2552C
FIL 1431C	Film Production 2: Cinematography and Sound	4	Prerequisite: FIL 1420C Corequisite: FIL 2553C
FIL 2552C	Editing Level 1: Introduction to Editing	3	
FIL 2553C	Editing Level 2: Intermediate Editing and Visual Effects	3	Prerequisite: FIL 2552C
VIC 1000	Visual Communications	3	

Miami Dade College

Florida Funeral Director
College Credit Certificate | Code 63024 | 31 Credits
CIP (0312030102**)**
Effective Term: Fall 2017 (2177)

The Florida Funeral Director certificate program is intended for individuals who have obtained a prior degree from an accredited institution and intend to transition into a new career path. Funeral Directors arrange the details and handle the logistics of funerals, assist the family in establishing the location, date, and time of wakes, memorial services, and burials, and determine whether the body should be buried, entombed, or cremated depending on the family's cultural and/or religious practices. The Florida Funeral Director certificate program will allow students to be eligible for the Florida Funeral Directors State Licensing Exam.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (31.00 credits)			
BUL 2131	Legal Environment	3	
ENC 1101	English Composition 1	3	
FSE 1000	Introduction to Funeral Services	3	
FSE 1080	Funeral Law	3	
FSE 2060	Funeral Directing	3	
FSE 2061	Funeral Service Counseling and Ethics	3	
FSE 2200	Funeral Service Accounting	3	
FSE 2201	Funeral Home Operations	3	
FSE 2202	Funeral Service Business Management	3	
FSE 2932	Funeral Science Professional Review 2	1	
PHI 2604	Critical Thinking/Ethics	3	

The following course(s) are not allowed for credit in this area. All Labs

Miami Dade College

Food & Beverage Management
College Credit Certificate | Code: 65051 | 30 Credits
CIP (0252090503**)**
Effective Term: Fall 2017 (2177)

The Food Service Management College Credit Certificate program is designed to prepare students with a theoretical and practical foundation for a successful career in the food and beverage industry. Students enrolled in this program are prepared for positions such as Catering/Banquet Manager, Food & Beverage Manager, Restaurant Manager and Bar/Lounge Manager. Credits earned can be applied to an Associate in Science degree in Hospitality Management, which is fully transferable to public universities within the State of Florida.

Course	Course Title	Credits	Pre-/Co-Requisites
PROGRAM CORE (18.00 Credits)			
HFT1000	Introduction to Hospitality	3	
HFT1212	Safety and Sanitation	3	
HFT1841	Dining Room Service	3	
HFT1852	Menu and Facilities Planning	3	
HFT2261	Restaurant Management	3	
HFT2800	Food and Beverage Management	3	
ELECTIVES (12.00 Credits)			
FSS1100	Foodservice purchasing	3	
FSS1200	Culinary Terminology and Procedures	3	
FSS1202L	Food Production 1	3	
HFT1210	Human Resources	3	
HFT1454	Food and Beverage Cost Controls	3	
HFT1631	Risk Management and Security	3	
HFT2241	Leadership and Quality Assurance Management	3	
HFT2421	Managerial Accounting for Hospitality	3	
HFT2449	E-Business for the Hospitality Industry	3	
HFT2949	Co-op Work-study Internships 2	3	

Miami Dade College

Food and Beverage Operations
College Credit Certificate | Code: 65058 | 18 Credits
CIP: (0252090508)
Effective Date:

The Food and Beverage Operations College Credit Certificate is designed to prepare students with an in- depth and practical foundation in management for a successful career in the food and beverage industry. Students enrolled in this certificate are prepared for positions such as Shift Supervisor, Restaurant Supervisor, or Bar/ Lounge Supervisor. Credits earned can be applied to an Associate in Science degree in Hospitality Management, which is fully transferable to public universities within the state of Florida.

Course	Course Title	Credits	Pre-/Co-Requisites
PROGRAM CORE (18.00 Credits)			
HFT 1000	Introduction to Hospitality	3	
HFT 1212	Safety and Sanitation	3	
HFT 1454	Food and Beverage Cost Controls	3	
HFT 2241	Leadership and Quality Assurance Management	3	
HFT 2800	Food and Beverage Management	3	
---AND---			
HFT 1852	Menu and Facilities Planning	3	
---OR---			
HFT 2261	Restaurant Management	3	

Miami Dade College

Food and Beverage Specialist
College Credit Certificate | Code: 65057 | 12 credits
CIP: (0252090507)
Effective Date:

The Food and Beverage Specialist College Credit Certificate is designed to prepare students with a theoretical and practical foundation for a successful career in the food and beverage industry. Students enrolled in this certificate are prepared for positions such as Restaurant Server, Room Service Attendant, or Banquet Set-Up Staff. Credits earned can be applied to an Associate in Science degree in Hospitality Management, which is fully transferable to public universities within the state of Florida.

Course	Course Title	Credits	Pre-/Co-Requisites
PROGRAM CORE (12.00 Credits)			
HFT 1000	Introduction to Hospitality	3	
HFT 1212	Safety and Sanitation	3	
HFT 1454	Food and Beverage Cost Controls	3	
---AND---			
HFT 2449	E-Business for the Hospitality Industry	3	
---OR---			
HFT 2949	Co-op Work-study Internships 2	3	

Miami Dade College

Geographic Information Systems Technology
College Credit Certificate | Code: 66080 | 21 credits
CIP: (0545070213)
Effective Term: Fall 2020 (2207)

Geographic Information Systems (GIS) is a technological field that promotes cooperation within and across organizations by enabling the integration of several information platforms to facilitate mapping, analysis and planning strategies. The College Credit Certificate program in Geographic Information Systems Technology prepares students with professional and technical training in geographic information systems (GIS). Graduates of the CCC acquire a skill-set that equips them to create, modify and enhance GIS for analysis, prediction, decision making and planning in a variety of fields.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (21 Credits)			
CGS 1540C	Database Concepts Design	4	
*CIS 2900	Directed Study IT	1	
GIS 1040	Introduction to GIS Technology	4	
GIS 2045	Intermediate GIS Technology	4	Pre-Req GIS1040 Introduction to GIS Technology
GIS 2046	Advanced GIS Technology	4	Pre-Req GIS2045 Intermediate GIS Technology
GIS 2047	Applications of GIS Technology	4	Pre-Req GIS2045 Intermediate GIS Technology

*Enrollment in this course requires successful completion of certain program course work and departmental approval.

NOTE: All program courses require a grade of "C" or higher.

Miami Dade College

Graphic Design Support
College Credit Certificate | Code: 61002 | 15 Credits
CIP (0611080302**)**
Effective Term: Fall 2017 (2177)

The Graphic Design Support College Credit Certificate (CCC) is designed to prepare students for initial employment as a graphic design assistant, graphic production artist, or to provide supplemental training for persons previously or currently employed in these occupations.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (15.00 Credits)			
GRA 1111C	Graphic Design Fundamentals	4	
GRA 1280C	Digital Imaging Fundamentals	4	
GRA 1750	Web Design Fundamentals	3	
GRA 2117C	Digital Illustration Fundamentals	4	

Miami Dade College

Health Care Services Specialist
College Credit Certificate | Code: 63021 | 27 Credits
CIP: (0351070102**)**
Effective Term: Summer 2023 (2235)

The 27-credit hour certificate program includes a series of courses that prepare students to become proficient on the latest software used in medical offices. A medical office manager plays an integral part in the day-to-day operations of a medical practice. Medical office manager responsibilities include, but are not limited to, monitoring the office budget, ordering medical supplies and implementing office policies and procedures. Graduates will also be trained to understand the complexities of healthcare insurance regulations and payment systems. This certificate is upward compatible with the A.S. degree, Health Services Management.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR CORE REQUIREMENTS (27.00 Credits)			
BSC 2085	Human Anatomy and Physiology 1	3	Corequisite: BSC 2085L
BSC 2085L	Human Anatomy and Physiology 1 Laboratory	1	Corequisite: BSC 2085
GEB 1011	Principles of Business	3	
HIM 1300	Health Care Facilities and Delivery System	2	
HIM 2472	Medical Terminology	3	
HIM 2253C	Current Procedural Terminology Coding	2	
HSA 1380	Health Care Quality Management	3	
HSA 2181	Health Services Management Concepts	3	
HSC 2810	Professional Practice Experience	4	
MAN 2021	Principles of Management	3	

Miami Dade College

Healthcare Informatics Specialist
College Credit Certificate | Code 63014 | 24 Credits
CIP (0351070712**)**
Effective Term: Fall 2022 (2227)

This program is designed to prepare students for employment in various healthcare settings where the Electronic Health Record is being implemented or maintained. Students will learn the concepts of collection of health information, integration of technology into the management of healthcare records, basic concepts in health data management, and database management in a healthcare setting.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (6.00 Credits)			
HIM 2472	Medical Terminology	3	
SPC 1017	Fundamentals of Speech Communication	3	
MAJOR COURSES FIRST SEMESTER (11.00 Credits)			
HIM 1000	Introduction to Health Information Technology	2	
HIM 1800	Professional Practice Experience 1	2	
HIM 2012	Legal Aspects of Health Care	2	
HIM 1110	Health Information Technology and Data Collection	2	
HIM 1110L	Health Information Management Data Collection lab	3	
MAJOR COURSES SECOND SEMESTER (7.00 Credits)			
HIM 2211C	Health Information Technologies	2	
HIM 2652C	Electronic Health Record	3	
HIM 2400C	Diversified Non-Hospital Health Records	2	

Miami Dade College

Help Desk Support Technician
College Credit Certificate| Code: 66037 | 16 Credits
CIP: (0511010313**)**
Effective Term: Fall 2020 (2207)

The Help Desk Support Technician College Credit Certificate is designed to prepare students with the technical knowledge and skills for employment as entry-level computer help desk and support technicians in commercial, industrial and government institutions. Graduates are also prepared for CompTIA A+ and Network+ industry certifications.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (16.00 Credits)			
CGS 1560	A+ Computer Operating Systems	4	
CTS 1131	A+ Computer Essentials & Support	4	Pre-req CGS 1560
CTS 1134	Networking Technologies	4	
CTS 1328	Supporting Microsoft Clients	4	Pre-req CGS 1060C or Computer Skills Placement Exam

Miami Dade College

Homeland Security
College Credit Certificate | 66074| 15Credits
CIP: ( )
Effective Term: Fall 2017 (2177)

This is a college credit certificate in Homeland Security. This certificate is designed to enhance student knowledge in the areas of counter-terrorism/intelligence, national security, or governmental security. Students may apply these courses to the associated A.S. degree in Criminal Justice Technology.

MAJOR COURSE REQUIREMENTS (15.00 credits)

CCJ 1191	Human Behavior in Criminal Justice	3
CJL 2062	Constitutional Law and Legal Procedure or Evidence	3
DSC 1006	Introduction to Homeland Security	3
DSC 2242	Transportation and Border Security	3
DSC 2590	Intelligence Analysis and Security Management	3

The following course(s) are not allowed for credit in this area. All Labs.

Miami Dade College

Horticulture Professional
College Credit Certificate | (63025) | 18 Credits
CIP (0101060504**)**
Effective Term: Fall 2017 (2177)

The College Credit Certificate in Agriscience for the Horticulture Professional is an advanced certificate for managerial positions in nursery and landscape technology industries. The certificate will prepare students for employment in horticulture and landscape industries as nursery mangers, landscape and grounds keeping mangers, nursery supervisors, landscape gardeners, and parks workers. Students will learn concepts of plant physiology and growth, plant classification, plant identification and plant care and maintenance to satisfy the growing needs of the nursery industry with an additional emphasis on management skills. If a student should choose to continue their education in Agriscience, the college credits granted in this program will apply toward an A.S. degree in Landscape and Horticulture Technology.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (18.00 Credits)			
HOS 1010	Horticulture 1	3	
ORH 1510	Landscape Plant Identification 1	3	
IPM 2112	Principles of Entomology	3	
ORH 2949	Landscape Technology Internship	3	
ORH 1251	Nursery Practices 1	3	
SBM 1000	Small Business Management	3	

Miami Dade College

Horticulture Specialist
College Credit Certificate | Code: 63026 | 12 Credits
CIP (0101060503**)**
Effective Term: Fall 2017 (2177)

The College Credit Certificate in Agriscience for the Horticulture Specialist is an introductory certificate designed to prepare students for positions in the nursery and landscape industries at the entry level. The certificate will prepare students for employment as supervisors in grounds keeping, nursery and greenhouse production, landscape gardeners, and parks workers. Students will learn plant physiology and growth, plant classification, plant identification and plant care and maintenance to satisfy the growing needs of the nursery industry. If a student should choose to continue their education in Agriscience, the college credits granted in this program will apply toward an A.S. degree in Landscape and Horticulture Technology.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (12.00 Credits)			
HOS 1010	Horticulture 1	3	
ORH 1251	Nursery Practices 1	3	
IPM 2112	Principles of Entomology	3	
ORH 1510	Landscape Plant Identification 1	3	

Miami Dade College

Infant/Toddler Specialization
College Credit Certificate | Code: 67014 | 12 Credits
CIP: (0419070907)
Effective Term: Fall 2020 (2207)

Course	Course Title	Credits	Pre-/Co-Requisites

This program is designed to prepare students as early childhood education caregivers with an infant/toddler specialization or provide supplementary training for persons previously or currently employed in these occupations. Students will learn essential components of quality care and education including, but not limited to early childhood education, guidance techniques, establishing and maintaining a safe and healthy learning environment, rules and regulations, family interactions, nutrition, child growth and development and professional responsibilities. Employment opportunities include in home or center-based programs for infants/toddlers.

COURSE REQUIREMENTS (12.00 Credits)

EEC 1000	Introduction to Early Childhood Education	3
EEC 1522	Infant and Toddler Environments	3
EEC 2201	Developing Curriculum for Infants and Toddlers	3
EEC 2407	Facilitating Social Development	3

Miami Dade College

Information Technology Support
College Credit Certificate | Code: 66044 | 28 Credits
CIP: (0511010311**)**
Effective Term: Spring 2022 (2223)

The Information Technology Support College Credit Certificate is designed to provide an opportunity to establish a basic foundation in IT roles. Training in this program includes computer repair and installation, troubleshooting operating systems, understanding the foundations of networking technologies, and providing excellence in customer service. Graduates are also prepared for CompTIA A+, Network+, and Project+ industry certifications.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (28.00 Credits)			
CGS 1060C	Intro to Computer Technology and App	4	
CGS 1560	A+ Computer Operating Systems	4	
CTS 1131	A+ Computer Essentials & Support	4	
CTS 1328	Supporting Microsoft Clients	4	CGS 1060C recommended or equivalent experience or skills
CTS 1134	Networking Technologies	4	
CTS 2148C	IT Project Management	4	
CTS 2153	Supporting Windows Users & Apps.	4	Pre-req CTS 1328

Miami Dade College

Intelligence Studies
College Credit Certificate | Code: 66075 | 16 Credits
CIP: (0743040300)
Effective Term: Summer 2022 (2225)

In this College Credit Certificate (CCC) in Intelligence Studies, students will learn what intelligence is and how it is used retroactively and proactively against computer crimes, homeland security critical issues and natural disasters. Students will also review the history of intelligence as practiced in the United States.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR CORE REQUIREMENTS (16.00 Credits)			
CET 2880C	Digital Forensics	4	
DSC 1002	Domestic & International Terrorism	3	
DSC 1590	Introduction to Intelligence Studies	3	
DSC 2501	Effective Communication Skills for Security Professionals	3	Pre-req.: ENC 1101
DSC 2590	Intelligence Analysis & Security Management	3	

Miami Dade College

Intermodal Freight Transportation
College Credit Certificate | 68011| 18 Credits
CIP: ( )
Effective Term: Fall 2017 (2177)

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (18 CREDITS)			
AVM 2120	Air Cargo	3	
TRA 1410	Introduction to Rail Freight Operations	3	
TRA 1420	Introduction to Trucking Operations	3	
TRA 1430	Introduction to Port Freight Operations	3	
TRA 2010	Introduction to Transportation and Logistics	3	
TRA 2402	Intermodal Transportation Operations and Project Management	3	

The Following course(S) are not allowed for credit in this area. All Labs.

Miami Dade College

International Freight Transportation
College Credit Certificate |68010 | 15 Credits
CIP: ( )
Effective Term: Fall 2017 (2017-1)

This certificate provides specialized knowledge in the area international movement of freight. It covers the regulations and policies governing international shipments and border security, the intermodal transportation of international freight, the regulatory agencies and the documents and processes involved. This certificate is part of the Associate of Science Degree in Transportation and Logistics.

Course	Course Title	Credits	Pre-/Co-Requisites
PROGRAM REQUIREMENTS (15.00 Credits)			
DSC 2242	Transportation and Border Security	3	
TRA 1154	Introduction to Supply Chain Management	3	
TRA 2010	Introduction to Transportation and Logistics	3	
TRA 2321	Transportation Public Policy, Law, and Regulations	3	
TRA 2702	International Logistics and Transportation	3	

The following course(s) are not allowed for credit in this area. All Labs.

Miami Dade College

Internet of Things (IoT) Applications
College Credit Certificate | Code: 66057 | 24 Credits
CIP: (0511020110)
Effective Term: Fall 2021

The Internet of Things Applications College Credit Certificate prepares students with multidisciplinary workforce skills and provides an accelerated credential that is useful for immediate employment and career experience. Graduates of the CCC in the IoT Applications acquire a skill set that leads to producing connected devices by developing applications that can run on microcontroller development boards, simulating the functioning of the devices, and building physical prototypes. Upon completion of the program, the student will have learned how to program in the dominant programming languages used in IoT, completed projects that they can include in their portfolio, and configured different single-board computers.

Course	Course Title	Credits	Pre-/Co-Requisites
PROGRAM REQUIREMENTS (24.00 Credits)			
CGS 1060C	Introduction to Computer Technology Applications	4	
CEN 2211	C/C++ Programming for Embedded Devices	4	
CEN 2212C	Introduction to Programming the Internet of Things (IoT)	4	
COP 1334	Introduction to C++ Programming	4	
CTS 2466C	Internet of Things (IoT) Development with C#	4	
EET 1033C	Electrical Fundamentals	4	

Miami Dade College

Lean Manufacturing
College Credit Certificate| 68001| 12 Credits
CIP: ( )
Effective Term: Fall 2017 (2177)

This certificate prepares students for initial employment with an occupational title as a Quality Specialist or Lean Specialist in various specialized areas. It also can provide supplemental training for persons previously or currently employed in these occupations. These courses can be applied toward the Associate of Science in Advanced Manufacturing.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSES FIRST SEMESTER (12.00 credits)			
ETI 1172	Introduction to Quality Assurance	3	
ETI 1622	Concepts of Lean and Six Sigma	3	
ETI 1644	Advanced Manufacturing Supply Chain	3	
ETI 2404	Advanced Manufacturing Technology	3	

Miami Dade College

Lending
College Credit Certificate | Code: 65080 | 32 Credits
CIP: (0252080113)
Effective Term: Fall 2021 (2217)

The primary vision of the Lending Certificate is to develop in the students the ability to identify risks by providing a comprehensive foundation in financial analysis and credit underwriting fundamentals. The student will learn how to recognize first signals of credit deterioration and how lending officers manage problematic credit risk situations and implement strategies to minimize losses. The Program content includes identification, analysis of key qualitative risk factors, assessment, calculation, and interpretations of key ratios and elements of financial accounting.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (32.00 Credits)			
BAN 1004	Banking Fundamentals, Evolution and Compliance	3	
BAN 2511	Marketing for Financial Services	3	
ACG 2021	Financial Accounting	3	
ACG 2021 L	Financial Accounting Lab	1	
BAN 1231	Commercial Lending	3	Pre-Req. ACG 2021 and ACG 2021L
BAN 2210	Analyzing Financial Statements	3	Pre-Req. ACG 2021 and CG2021L
BAN 2211	Applied Financial Statement Analysis	3	Pre-Req. ACG 2021 and ACG 2021L, BAN 2210
BAN 1013	Negotiable and the Payment Mechanism	3	
BAN 2511	Marketing for Financial Service	3	
REE 2304	Commercial Real Estate	3	
MKA 1022	Relationship Selling and Sales Strategies	3	
FIN 1930	Special Topic Seminar	1	

NOTE: ABA Certificate in General Banking
CFT Consumer Lending, Commercial Lending and Real Estate Lending Diplomas CFT
Advanced Financial Services Diploma

Miami Dade College

Logistics and Transportation Specialist
College Credit Certificate | Code: 63019 | 18 Credits
CIP (0652020901**)**
Effective Term: Fall 2019 (2197)

The Logistics and Transportation Specialist College Credit Certificate (CCC) will prepare students for further education and employment in the Transportation, Distribution and Logistics career cluster. The program content is broad-based to reflect the cross-functional relationships prevalent in supply chain management. Students are exposed to related business practices such as standard operating procedures, negotiation techniques, planning, organizing, and accounting concepts, purchasing, sustainability, warehousing, project management, quality control, import/export, and asset management theory. Emphasis is placed on understanding the planning, acquisition, flow, and distribution of goods and services while managing the complexity of operational linkages in a fast-paced global supply chain.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (18.00 Credits)			
Group A (15.00 Credits)			
TRA 1154	Introduction to Supply Chain Management	3	
TRA 2010	Introduction to Transportation and Logistics	3	
TRA 2156	Operations Management for Transportation	3	
TRA 2402	Intermodal Transportation Operations and Project Management	3	
TRA 2702	International Logistics and Transportation	3	
---AND---			
Group B (3.00 Credits)			
TRA 1410	Introduction to Rail Freight Operations	3	
TRA 1420	Introduction to Trucking Operations	3	
TRA 1430	Introduction to Port Freight Operations	3	

Miami Dade College

Mechatronics
College Credit Certificate | Code: 66053 | 30 Credits
CIP: (0615000013)
Effective Date:

This program offers students instruction in maintenance techniques, computer aided drafting/design skills, technical communications, maintenance and operation of various industrial components, quality control and testing, material handling protocols, and proper usage of tools and instrumentation.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (30.00 Credits)			
CET 1110C	Digital Circuits	4	
COP 2270	"C" for Engineers	4	
EET 1015C	Direct Current Circuits	4	
EGN 2200	Computer Applications in Engineering	3	
ETI 1152C	Mechanical Measurement and Instrumentation	3	
ETI 1701	Industrial Safety	3	
ETI 2404	Advanced Manufacturing Technology	3	
ETM 1315C	Applied Pneumatics and Hydraulics	3	
EGN 1008C	Introduction to Engineering	3	

Miami Dade College

Medical Coder/Biller
College Credit Certificate | Code: 63020 | 37 credits
CIP (0351071404**)**
Effective Term: Spring 2023 (2233)

The Medical Coder/Biller program prepares individuals for employment as Medical Coder/Billers. The student will learn to translate diagnoses and procedures into numerical designation (coding) using the International Classification of Diseases (ICD-9- CM) and Current Procedural Terminology (CPT-4). The program involves coding, classifying and indexing diagnoses and procedures for purposes of standardization, retrieval and statistical analysis. The student will also be trained to prepare and file medical insurance claim forms for reimbursement. Electronic claims transmission is included. There is special emphasis on ethical and legal responsibilities, data quality, financial reimbursement, Diagnosis Related Groups (DRGs) and Ambulatory Patient Classification (APCs).

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR CORE REQUIREMENTS (37.00 Credits)			
BSC 2085	Human Anatomy and Physiology 1	3	Corequisite: BSC 2085L
BSC 2085L	Human Anatomy and Physiology 1 Laboratory	1	Corequisite: BSC 2085
BSC 2086	Human Anatomy & Physiology 2	3	Prerequisite: BSC 2085; Corequisite: BSC 2086L
BSC 2086L	Human Anatomy & Physiology 2 Laboratory	1	Prerequisites: BSC 2085, BSC 2085L; Corequisite: BSC 2086L
HIM 1000	Introduction to Health Information Management	2	
HIM 1110	Health Record Technology & Data Collection	2	Prerequisites: HIM 1000, HIM 2472; Corequisite: HIM 1110L
HIM 1110L	Health Record Technology & Data Collection Laboratory	3	Prerequisites: HIM 1000, HIM 2472, Corequisite: HIM 1110
HIM 1300	Health Care Facility and Delivery System	2	
HIM 2211C	Health Information Technologies	2	Prerequisites: HIM 1110, HIM 1110L, HIM 1800
HIM 2222	ICD Coding Systems	2	Prerequisites: BSC 2085, BSC 2085L and HIM 2472, Corequisite: HIM 2222L
HIM 2222L	ICD Coding Systems Laboratory	3	Prerequisites: BSC 2085, BSC 2085L and HIM 2472; Corequisite: HIM 2222
HIM 2234	Advanced Coding & Reimbursement Systems	2	Prerequisites: HIM 2222, HIM 2222L; Corequisite: HIM 2234L
HIM 2234L	Advanced Coding & Reimbursement Systems Laboratory	1	Prerequisites: HIM 2222, HIM 2222L; Corequisite: HIM 2234
HIM 2253C	Current Procedural Terminology/CPT-4	2	Prerequisites: BSC 2085, BSC 2085L and HIM 2472
HIM 2433	Pathophysiology and Pharmacology	3	Prerequisites: BSC 2085, BSC 2085L, HIM 2472
HIM 2472	Medical Terminology	3	Prerequisite: Departmental Permission
HIM 2813	Professional Practice Experience	2	Prerequisites: HIM 2222, HIM 2222L, HIM 2234, HIM 2234L, HIM 2253C

Miami Dade College

Mental Health – Neuroscience and Aging
College Credit Certificate| Code: 65079 | 18 Credits
CIP: (0451159902)
Effective Term: Fall 2022 (2227)

This College Credit Certificate (CCC) in Mental Health - Neuroscience and Aging is designed to prepare students to meet community needs and industry demands in the field of mental health services with a diverse aging population.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR CORE/COURSE REQUIREMENTS			
PSY 2012	Introduction to Psychology	3	
PSB 2041	Behavioral Neuroscience	3	
INP 2390	Psychology of Work	6	
CLP 2140	Abnormal Psychology	3	Prerequisite: PSY 2012 or Departmental Approval
DEP 2402	Psychology of Adulthood and Aging	3	
PSY 2940C	Mental Health – Aging Practicum	3	Prerequisite: Departmental Approval

NOTE: All courses must be met with a grade of "C" or higher.

Miami Dade College

Microcomputer Repairer/Installer
COLLEGE CREDIT CERTIFICATE| 66032 | 15 Credits
CIP:
Effective Term: Fall 2017 (2177)

The Microcomputer Repairer/Installer College Credit Certificate program is designed to prepare students to work as Computer Repair Assistants in a computer repair shop or the computer maintenance division of a corporation by acquiring a basic understanding of computer internal architecture and operations. Students must complete the courses listed below.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (15.00 Credits)			
EET 1082	Introduction to Electronics	3	
CET 1171	Introduction to Computer Service and Maintenance	3	
CET 1178C	A+ Computer Hardware Service	3	
CET 2588C	Server + Service and Maintenance	3	
CET 1487C	Network+	3	

Miami Dade College

Network Server Administration
College Credit Certificate | Code: 66035 | 24 Credits
CIP: (0511100112**)**
Effective Term: Fall 2023 (2237)

The College Credit Certificate can help you get started in the technology field by offering you the foundational skills needed to support organizations by administering network systems and services. The program can teach you to implement, protect, and manage networks and servers in today's business environments. Program coursework is additionally designed to help you prepare for a variety of industry-recognized certifications, including Network+, Security+, Server+, Linux+, and Microsoft Azure Administrator Associate. As a graduate, you may seek employment as an entry-level Network and Computer Systems Administrator, Network Support Technician, Information Technology Support Specialist, and Network Specialist.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (24.00 Credits)			
CTS 1111	Linux +	4	
CTS 1120	Cybersecurity Fundamentals	4	Recommended preparation: prior knowledge of Networking Technologies
CTS 1134	Networking Technologies	4	
CTS 2143C	Server Administration	4	Recommended Preparation: Server Operating Systems experience.
CTS 2192C	Microsoft Azure Administration	4	Recommended Preparation: CTS 1145 or equivalent knowledge in Microsoft Azure Fundamentals
CTS 2303	Windows Server Administration	4	Recommended Preparation: CGS 1060C and CTS 1134 or equivalent knowledge

Miami Dade College

Network Systems Developer
College Credit Certificate | 66034) | 41 Credits
CIP:
Effective Term: Fall 2017 (2177)

The Network Systems Developer College Credit Certificate is designed to prepare students to work as Computer Repair Technicians in a computer repair shop or the computer maintenance division of a corporation, by acquiring an in depth understanding of computer internal architecture, operations and digital systems design operations.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (41.00 Credits)			
EET 1015C	Direct Current Circuits	4	
EET 1082	Introduction to Electronics	3	
EET 2351C	Digital and Data Communications	4	
CET 1171	Introduction to Computer Service and Maintenance	3	
CET 1178C	A+ Computer Hardware Service	3	
CET 1487C	Network+	3	
CET 1110C	Digital Circuits	4	
CET 2123C	Microprocessors	4	
CET 2113C	Advanced Digital Circuits	4	
CET 2588C	Server + Service and Maintenance	3	
MAC 1105	College Algebra	3	
MTB 1322	Technical Mathematics 2	3	

Miami Dade College

Oracle Certified Database Administrator
College Credit Certificate | Code 66048 | 16 Credits
CIP:
Effective Term: Fall 2017 (2177)

The Oracle Certified Database Administrator College Credit Certificate program is designed to provide an opportunity to establish a basic foundation in the field of database administration for employment in commercial, industrial and government institutions. Graduates are prepared for the position of Oracle Database Administrator.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (16.00 Credits)			
CTS 2440	Introduction to Oracle: SQL and PL/SQL	4	
CTS 2444	Oracle Database Performance Tuning	4	
CTS 2441	Introduction to Oracle Database Administration	4	
CTS 2442	Intermediate Oracle Database Administration	4	

Miami Dade College

Paramedic
College Credit Certificate | Code: 63008 | 42 Credits
CIP (0351090405**)**
Effective Term: Fall 2008 (2087)

The Paramedic College Credit Certificate provides students with the advanced skills, knowledge, and clinical experience required to provide safe and effective hospital and pre-hospital care to the sick and injured. Satisfactory completion of the program will qualify the graduate to sit for the State and/or National Paramedic Certification Examination. This program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP) and approved by the State of Florida, Department of Health and Rehabilitative Services

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSES FIRST SEMESTER (15.00 Credits)			
EMS 2601	Paramedic Lecture 1	8	
EMS 2601L	Paramedic Laboratory 1	4	
EMS 2664	Paramedic Clinic 1	3	
MAJOR COURSES SECOND SEMESTER (15.00 Credits)			
EMS 2602	Paramedic Lecture 2	8	
EMS 2602L	Paramedic Laboratory 2	4	
EMS 2665	Paramedic Clinic 2	3	
MAJOR COURSES THIRD SEMESTER (8.00 Credits)			
EMS 2659	EMS-Field Internship and Conference	8	
SCIENCE (4.00 Credits)			
BSC 2085	Human Anatomy and Physiology 1	3	
BSC 2085L	Human Anatomy and Physiology 1 Laboratory	1	

Miami Dade College

Passenger Service Agent
College Credit Certificate |Code: 66028 | Credits
CIP:
Effective Term: Fall 2017 (2177)

The Passenger Service Agent College Credit Certificate program is designed to give students the skills required to gain employment as a passenger service agent, including gate and ramp responsibilities. Students will be required to do an internship with a commuter or major airline. Additional Information: Contact the Aviation Department at (305) 237-5950 for more information and advisement.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSES (16.00 Credits)			
AVM 1022	Flight Operations	3	
AVM 1062	Aviation Career Planning	1	
AVM 1440	Aviation/Airport Security	3	
AVM 1010	Aviation Industry Operations	3	
AVM 2441	Aviation Safety & Human Factors	3	
AVM 2431	Customer Service Agent	3	

Miami Dade College

Pattern Making and Construction
College Credit Certificate | Code: 64002 | 21 Credits
CIP: (0450040702**)**
Effective Date: Fall 2021 (2217)

The College Credit Certificate Program in Pattern Making and Construction prepares students to fulfill the essential roles of machinists, pattern makers, and pattern cutters in the growing field of fashion. Classes focus on the technical skills and basic textile knowledge required for entry level positions in the industries of textile, apparel, and furnishings.

Course	Course Title	Credits	Pre-/Co-Requisites
MAYOR COURSE REQUIREMENTS (21.00 Credits)			
Semester 1			
CTE 1743C	Patternmaking Level 1	3	Corequisite: CTE 2310C
CTE 2310C	Clothing Construction Methods Level 1	3	Corequisite: CTE 1743C
CTE 1401	Introduction to Textile Science	3	
Semester 2			
CTE 2745C	Patternmaking Level 2	3	Prerequisite: CTE 1743C
CTE 2330C	Clothing Construction Methods Level 2	3	Prerequisite: CTE 2310C
Semester 3			
CTE 2749C	Patternmaking Level 3	3	Prerequisite: CTE 2745C
CTE 2342C	Clothing Construction Methods Level 3	3	Prerequisite: CTE 2330C

All CTE courses require departmental approval to enroll and earn a grade of "C" or higher.

Miami Dade College

Rapid Prototyping Specialist
College Credit Certificate | Code: 66054 | 12 Credits
CIP: (0615000012)
Effective Date:

This program provides students with the technical skills proficiency and competency-based applied learning that contributes to the academic and career knowledge of students entering the advanced manufacturing industry.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (12.00 Credits)			
ETD 1340	AutoCAD	3	
ETI 2404	Advanced Manufacturing Processes	3	
EGN 2200	Computer Applications in Engineering	3	
ETS 2632C	Computer Integrated Manufacturing	3	

Miami Dade College

Real Estate Legal Specialization Certificate
College Credit Certificate | Code: 67015 | 12 credits
CIP (0722030203**)**
Effective Term: Fall 2024 (2247)

The College Credit Certificate (CCC) in Real Estate Legal Specialization Certificate program equips students with the necessary skills to pursue entry-level positions in law offices, lending institutions, title companies, real estate brokerage offices, real estate settlement offices, and government agencies. Additionally, it provides an opportunity for individuals already working in the field without real estate expertise to enhance their skills, thereby increasing their marketability and potentially advancing their careers in the legal and real estate sectors.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR CORE REQUIREMENTS (12.00 Credits)			
LCO 0999	Law Center New Student Orientation	0	
PLA 2610	Introduction to Real Property	4	Corequisite: PLA 2631C
PLA 2631C	Real Estate Transactions and Settlement	4	Corequisite: PLA 2610
PLA 2704	Professionalism & Civility in the Law	3	
PLA 2930	Special Topics	1	

Academic Pathway at MDC: The CCC in Real Estate Legal Specialization Certificate is a pathway to the AS in Paralegal Studies (ABA Approved) and a pathway to the BAS in Supervision and Management. To learn more about the courses listed see College Catalog. **Additional Information:** Students must register for the Law Center New Student Orientation (LCC0999) and Corequisite PLA 2003. All courses must be met with a grade of "C" or higher.

Miami Dade College

Rooms Division Management
College Credit Certificate | Code: 65048 | 30 Credits
CIP: (0252090402**)**
Effective Term: Fall 2017 (2177)

The Rooms Division Management College Credit Certificate program is designed to prepare students with a theoretical and practical foundation for a successful career in the hotel sales and marketing industry. Students enrolled in this certificate are prepared for positions such as Front Desk Manager, and Guest Relations Manager. Credits earned can be applied to an Associate in Applied Science degree in Hospitality and Tourism Management.

Course	Course Title	Credits	Pre-/Co-Requisites
PROGRAM CORE (15.00 Credits)			
HFT1000	Introduction to Hospitality	3	
HFT1210	Human Resources	3	
HFT1631	Risk Management and Security	3	
HFT2421	Managerial Accounting for Hospitality	3	
HFT2449	E-Business for the Hospitality Industry	3	
ELECTIVES (15.00 Credits)			
HFT1220	Supervisory Development	3	
HFT1300	Executive Housekeeping	3	
HFT2223	Training Skills and Development	3	
HFT2241	Leadership and Quality Assurance Management	3	
HFT2410	Front Office Procedures and Lodging Operations	4	
HFT2501	Hospitality Sales	3	
HFT2750	Event and Meeting Management	3	
HFT2949	Co-op Work-study Internships 2	3	

Miami Dade College

Rooms Division Operations
College Credit Certificate | Code: 65056 | 19 Credits
CIP (0252090406)
Effective Date:

The Rooms Divisions Operations College Credit Certificate is designed to prepare students with a theoretical and practical foundation for a successful career in the lodging industry. Students enrolled in this certificate are prepared for positions such as Front Desk Supervisor or Guest Relations Supervisor. Credits earned can be applied to an Associate in Science degree in Hospitality Management, which is fully transferable to public universities within the state of Florida.

Course	Course Title	Credits	Pre-/Co-Requisites
PROGRAM CORE (19.00 Credits)			
HFT 1000	Introduction to Hospitality	3	
HFT 1210	Human Resources	3	
HFT 1300	Executive Housekeeping	3	
HFT 2410	Front Office Procedures and Lodging Operations	4	
HFT 2449	E-Business for the Hospitality Industry	3	
---AND---			
HFT 1631	Risk Management and Security	3	
---OR---			
HFT 1949	Co-op Work-study Internships I	3	
---OR---			
HFT 2241	Leadership and Quality Assurance Management	3	
---OR---			
HFT 2750	Event and Meeting Management	3	

Miami Dade College

Rooms Division Specialist
College Credit Certificate | Code: 65055 | 13 Credits
CIP (0252090405**)**
Effective Date: Fall 2017 (2177)

The Rooms Divisions Specialist College Credit Certificate is designed to prepare students with a theoretical and practical foundation for a successful career in the lodging industry. Students enrolled in this certificate are prepared for positions such as Front Desk Agent, Guest Relations Agent, or Reservation Clerk. Credits earned can be applied to an Associate in Science degree in Hospitality Management, which is fully transferable to public universities within the state of Florida.

Course	Course Title	Credits	Pre-/Co-Requisites
PROGRAM CORE (13.00 Credits)			
HFT 1000	Introduction to Hospitality	3	
HFT 1300	Executive Housekeeping	3	
HFT 2410	Front Office Procedures and Lodging Operations	4	
---AND---			
HFT 1631	Risk Management and Security	3	
---OR---			
HFT 1949	Co-op Work-study Internships I	3	
---OR---			
HFT 2241	Leadership and Quality Assurance Management	3	

Miami Dade College

Sales and Customer Management
College Credit Certificate | Code: 65107 | 12 Credits
CIP: (0252180400)
Effective Term: Fall 2023 (2237)

The certificate in Sales and Customer Management is designed to enhance knowledge and practical skills for a successful career in the sales profession. Students will be able to use customer relationship management (CRM) and selling techniques for reaching target markets to sell a product or service to sustain profitability and competitiveness.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (12.00 Credits)			
MKA 1160	Customer Relationship Management	3	
MAR 1502	Sales and Consumer Behavior	3	
MKA 1022	Relationship Selling	3	
MAR 1440	Fundamentals of Negotiations	3	

Miami Dade College

Solar Energy Systems Specialist
College Credit Certificate | Code: 66056 | 18 Credits
CIP: (0615050303)
Effective Date:

The College Credit Certificate (CCC) in Solar Energy Systems Specialist will fill a growing need to train personnel in how to build and install Solar Photo-Voltaic panels in both commercial and private structures. Students will receive a wide-range of classroom and hands-on training that will provide the student with the education and knowledge of the following grid connect solar power systems, off grid solar-remote power systems, commercial and medium scale solar, solar hot water, solar hydronics/thermal, and solar water pumping.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (18.00 Credits)			
EET 1033C	Electrical Fundamentals	4	
ETI 1701	Industrial Safety	3	
ETP 2040C	Electric Power Distribution	4	Pre-Req: EET1033C
ETP 2410C	Design, Installation & Operation of Solar PV Systems	4	Pre-Req: EET1033C
ETP 2501C	Introduction to Alternative and Renewable Energy	3	Pre-Req: EET1033C

Miami Dade College

Sport Management Operations
College Credit Certificate | Code: 65095 | 18 credits
CIP (0552020117**)**
Effective Term: Fall 2024 (2247)

This certificate in Sports Management Operations is designed to provide instruction to individuals in the areas of sports management, competitive gaming, collect and distribution of data, directing and controlling of a business, with emphasis on selected theories of management and decision- making and the knowledge and understanding necessary for managing people and functions.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (18.00 Credits)			
GEB 1000	Business Career Strategies	3	
GEB 1949	General Business Internship 1	3	
MAN 2021	Principles of Management	3	
SPM 1000	Introduction to Sports Management	3	
SPM 2105	Sports Events and Facility Management	3	
SPM 2151	The Business of Sports	3	

Miami Dade College

Tax Specialist
College Credit Certificate | Code: 65076 | 12 Credits
CIP (0552030204)
Effective Date:

The College Credit Certificate in Tax Specialist will prepare students to fill out the necessary forms for their clients or for the businesses in which they work. In addition, students will learn how to reduce taxable income and discover the current income tax regulations and their impact on individuals, couples, families, and business owners. In addition, students will gain a working knowledge about business income, tax credits, itemized deductions, LLCs and S Corps, retirement plans, and home businesses.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (12.00 Credits)			
TAX 2000	Income Tax	3	
TAX 2002	Taxation Practices and Procedures	3	
TAX 2021	Taxation of Business Organizations	3	
TAX 2401	Tax of Estates, Gifts and Trusts	3	

Miami Dade College

Television Studio Production
College Credit Certificate | Code: 61003 | 12 Credits
CIP (0610010513**)**
Effective Term: Fall 2017 (2177)

The Television Studio College Credit Certificate (CCC) is designed for students who intend to seek employment in radio, television and production companies, as well as allied fields such as in-house educational and industrial studios. The curriculum stresses hands-on equipment use in TV laboratories. Students will have access to high-end cameras, editing suites and video graphics animation facilities and will complete portfolio-quality productions.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (12.00 Credits)			
RTV 1241C	Television Studio Production 1	4	
RTV 1242C	Television Studio Production 2	4	Prerequisites: RTV 1241C
RTV 2245C	Electronic Field Production 1	4	Prerequisite: RTV 1241C

Miami Dade College

Translation and Interpretation
College Credit Certificate | Code: 64052 | 18 Credits
CIP: (0713100306**)**
Effective Date: Fall 2021 (2217)

This College Credit Certificate (CCC) focuses on the basic preparation needed for a career in Translation and Interpretation. Students learn how language functions and apply this knowledge to the development of Sight and Consecutive Interpretation skills. The development of basic translation competencies is also covered with emphasis on the use of Computer Assisted Translation software.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR CORE REQUIREMENTS (18.00 CREDITS)			
FOT 2802	Introduction to Translation	3	
FOT 2821	Introduction to Interpretation	3	
FOT 2823	Consecutive Interpretation	3	Prerequisite: FOT 2821
FOT 2825	Computer Assisted Translation	3	Prerequisite: FOT 2802
LIN 2011	Introduction to Linguistics	3	
SPT 2842	Contrastive Analysis Spanish/English	3	

Miami Dade College

Virtual and Augmented Reality Technologies
College Credit Certificate | Code: 66060 | 19 Credits
CIP (0550041118**)**
Effective Term: Fall 2023 (2237)

The program will teach students the fundamentals of Virtual and Augmented Reality. Students will learn basic concepts, history and tools commonly used for stereoscopic image acquisition and immersive technologies. Students will also learn the origins of Virtual Reality (VR) and its current role in the industry, its applications and opportunities and how to generate and manipulate VR imagery.

Course	Course Title	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIRMENTS (19.00 Credits)			
DIG 1430	Storyboarding	3	
DIG 1729C	Game Engines	4	
DIG 1772C	Introduction to Virtual and Augmented Reality Technologies	4	Pre/Corequisite: DIG 1729C
DIG 2776C	Virtual Reality Platform Development	4	Pre/Corequisites: DIG 1729C and DIG 1772C
DIG 2777C	Augmented Reality Platform Development	4	Pre/Corequisites: DIG 1729C and DIG 1772C

CAREER TECHNICAL. CERTIFICATES (CTC)

Career Technical Certificates (CTC) prepare students to enter a specific career or vocation. To complete a program, students must demonstrate that they have mastered specific job-related performance requirements as well as communication and computation competencies and will be awarded a Career Technical Certificate (CTC) upon completion. CTC certificates vary in length depending on the complexity of the requirements. Students entering CTE certificates greater than 450 hours will be tested for basic communication, computation and reading skills, also known as the Tests of Adult Basic Education (TABE). Students who score below the required Department of Education grade level designated for each program will be required to take appropriate basic skills training prior to the completion of their respective programs (§233.0695, F.S).

CTC students are eligible for financial aid provided they are enrolled in a CTC certificate that is 600 credit hours or greater. Health Science certificates are offered at the Medical Campus. Students interested in any of the Health Science certificates are encouraged to consult advisors in the New Student Center to receive the most current information regarding program admission.

Advanced Automotive Service Technology - Tesla Technician

Career Technical Certificate | Code: 51000 | 26.66 credits

The Tesla Technician Career Technical Certificate, an intensive 15-week electric vehicle service training program designed to provide students with the skills necessary for a successful career with Tesla. During the course of the program, students will develop technical expertise and earn certifications through a blended approach of in-class theory, hands-on labs and self-paced learning. Upon successful completion of the program, graduates have the certification necessary for job placement as Service Technicians at one of Tesla's Service Centers across the country, including South Florida. Test of Adult Basic Education (TABE) is required.

Aircraft Structural Assembly and Fabrication Apprenticeship

Career Technical Certificate | Code: 59005 | 143.20 credits

The Career Technical Certificate (CTC) in Aircraft Structural Assembly and Fabrication Apprenticeship will prepare students for entry-level employment in the aerospace industry. Students who complete this certificate program will have the necessary skills to be employed by aircraft manufacturers and subcontractors in aircraft structures, assembly, composites, fabrication and major and minor modifications. These skills will also be utilized by a wide array of commercial and military aircraft.

Central Sterile Processing Technician

Career Technical Certificate | Code: 53014 | 21.66 credits

The Career Technical Certificate in Central Sterile Processing Technician is designed to educate and prepare graduates with skills required for entry-level employment as a member of the healthcare team. In addition, students will acquire extensive knowledge of legal and ethical responsibilities, anatomy, physiology, pathophysiology, microbiology, aseptic techniques, patient care procedures, surgical technology procedures, patient safety, and use and care of equipment and supplies.

Commercial Class B Driving

Career Technical Certificate | Code: 56016 | 5 credits

The Career Technical Certificate in Commercial Class B Driving is designed to educate and prepare students for a Class B Commercial Driver License. The Truck Driver Heavy Florida Class B course prepares students for entry into the trucking and logistics industry. Students explore career opportunities and requirements of a professional class B truck driver. Students study vehicle safety, accident prevention, operating regulations, cargo handling, documentation procedures, pre-trip preparation, vehicle inspection, maintenance, service, control procedures, backing, maneuvering, road and hazardous driving skills, and licensing requirements.

Commercial Vehicle Driving

Career Technical Certificate | Code: 56015 | 10.67 credits

The Career Technical Certificate in Commercial Vehicle Driving is designed to educate and prepare students for a Class "A" Commercial Driver License. The Tractor Trailer Truck Driver course will prepare students for entry into the trucking and logistics industry. Students explore career opportunities and requirements of a professional tractor trailer driver. Students will study vehicle safety, accident prevention, operating regulations, cargo handling, documentation procedures, pre-trip preparation, vehicle inspection, maintenance, service, control procedures, backing, coupling, uncoupling, maneuvering, road and hazardous driving skills, and licensing requirements.

Correctional Officer - State

Career Technical Certificate | Code: 57021 | 14 credits

Correctional Officers in the State of Florida. All criminal justice standards and training, Department of Education, and local standards will be met. Graduates are eligible for employment with any correctional agency in the state upon graduation from the program and successful completion of the State Certification Exam. Topics include human behavior, law, communications, facility operations, first aid and other related topics. There is emphasis on practical applications and competency-based performance. This program is offered at the School of Justice. Students seeking entrance into the MDC School of Justice basic recruit training programs for a career in corrections are required to pass a physical screening, physical agility, Voice Stress Analysis Test, psychological test, fingerprinting and background check and the Basic Abilities Test. For more information please contact the School of Justice and/or visit https://www.mdc.edu/justice/basic-corrections-academy.aspx.

Dental Assisting Technology and Management

Career Technical Certificate | Code: 53015 | 41 credits

The Career Technical Certificate in Dental Assisting Technology and Management is designed to educate and prepare graduates with skills required for entry-level employment as a member of the dental healthcare team. In addition, students will acquire extensive knowledge and skills to offer direct chairside assistance to the dentist, expose dental radiographs, and educate and instruct patients in preventive dental care. Students will be trained in infection control procedures, disease prevention, dental procedures and instruments and business office procedures. TABE Requirement: Computation (Mathematics): 10 and Communications (Reading Language Arts): 10.

Fire Fighter Minimum Standards

Career Technical Certificate | Code: 57004 | 16.4 credits

This program offers a broad foundation of knowledge and skills to prepare the student for employment as a frontline, entry-level firefighter. The program content includes, but is not limited to, orientation to the fire service, fire alarms and communication, vehicles, apparatus and equipment, fire behavior, portable extinguishers, fire streams, fundamentals of extinguishment, ladders, hoses, tools and equipment, forcible entry, salvage, overhaul, ventilation, rescue, protective breathing equipment, first responder emergency medical techniques, water supplies, principles of in-service inspections, safety, controlled burning, and employability skills. Students who successfully complete the program will be required to pass a written and practical exam to obtain certification as a Firefighter 2 from the Florida Bureau of Fire Standards and Training. Students must be a minimum of 18 years old to participate. Fire Academy Students Only. TABE Requirement: Computation (Mathematics): 10 and Communications (Reading Language Arts): 10.

Fire Fighter/Emergency Medical Technician - Combined

Career Technical Certificate | Code: 58000 | 26.40 credits

The purpose of this program is to provide the necessary training required for students to become certified firefighters as well as licensed Emergency Medical Technicians. It is not intended for those who are currently certified/licensed as either firefighters or EMTs. Students wishing to add an additional certification to an existing credential must enroll in either the Firefighter program or the Emergency Medical Technician program. Students must successfully complete the Firefighter Minimum Standards portion before moving on to the Emergency Medical Technician portion. This program (58000) is eligible for financial aid. Students must be a minimum of 18 years old to participate. Fire Academy Students Only. TABE Requirement: Computation (Mathematics): 10 and Communications (Reading Language Arts): 10.

Florida Law Enforcement Academy

Career Technical Certificate | Code: 57022 | 25.66 credits

The Law Enforcement Officer program prepares students for certification as Police Officers in the State of Florida. All criminal justice standards and training, Department of Education, and local standards will be met. Graduates are eligible for employment with any law enforcement agency in the state upon graduation from the program and successful completion of the State Certification Exam. Topics include law, human issues, patrol, traffic, investigations and communications. There is an emphasis on practical applications and competency-based performance. This program is offered at the School of Justice. Students seeking entrance into the MDC School of Justice basic recruit training programs for a career in law enforcement are required to pass a physical screening, physical agility, Voice Stress Analysis Test, psychological test, fingerprinting and background check and the Basic Abilities Test. For more information please contact the School of Justice and/or visit https://www.mdc.edu/justice/law-enforcement/.

Licensed Practical Nurse (LPN)

Career Technical Certificate | Code: 53020 | 45 credits

This one-year planned certificate program prepares a safe and effective practitioner for the beginning levels of patient care. The practical nurse functions to the level of their educational preparation and under the direct supervision of a registered nurse, mid-level provider, or licensed physician. The curriculum prepares the graduate to challenge the state board examination for practical nurse licensure. The program is approved by the Florida Board of Nursing (FBON). Graduates are eligible to apply to write the National Council Licensing Examination for Registered Nurses (NCLEX-PN). Selection is based on scores on pre-admission testing and completion of required prerequisite courses. See the School of Nursing Information website for more specific details about admission requirements. Pre-Admission tests – Applicants must take the Test of Adult Basic Education (TABE) and Test of Essential Academic Skills (TEAS).

Low Voltage Technician

Career Technical Certificate | Code: 56010 | 25 credits

The Low Voltage Technician certificate program is designed to prepare students for employment or advanced training in a variety of occupations in the Electronics Technology Integration industry. The program focuses on technical and product skills, underlying principles of technology, planning, management, finance, labor issues, health, safety and environmental issues.

Massage Therapy - Accelerated Option

Career Technical Certificate – Health Sciences | Code: 53022 | 25 credits

The Massage Therapy program prepares individuals to provide various techniques of massage of the back, head, and feet including reflexology, rolling, trigger point therapy. There is an emphasis on the therapist/client relationship and record management for clients and payment. Upon successful completion of this program, the graduate is eligible to sit for the State of Florida Massage Therapy licensure examination.

Massage Therapy - Generic Option

Career Technical Certificate – Health Sciences | Code: 53021 | 25 credits

The two-semester program prepares individuals to provide various techniques of massage of the back, head, and feet including reflexology, rolling, trigger point therapy. There is an emphasis on the therapist/client relationship and record management for clients and payment. Upon successful completion of this program, the graduate is eligible to sit for the State of Florida Massage Therapy licensure examination. Test of Adult Basic Education (TABE) may be required.

Massage Therapy - Transitional Option

Career Technical Certificate – Health Sciences | Code: 53023 | 25 credits

The Massage Therapy program prepares individuals to provide various techniques of massage of the back, head, and feet including reflexology, rolling, trigger point therapy. There is an emphasis on the therapist/ client relationship and record management for clients and payment. Upon successful completion of this program, the graduate is eligible to sit for the State of Florida Massage Therapy licensure examination.

Medical Assisting

Career Technical Certificate – Health Sciences | Code: 53007 | 43.30 credits

The Medical Assisting program, which is 1 year (3 semesters) in length, prepares individuals to provide health services in ambulatory out-patient facilities, including medical offices and clinics. Medical Assistants participate in diagnostic, clinical, and administrative functions. Diagnostic functions include drawing blood, performing basic laboratory tests, and taking EKG's and X-Rays. Clinical functions include obtaining vital signs, preparing patients for and assisting with examinations and procedures, administering medications and performing treatments. Administrative functions include serving as receptionists, scheduling appointments and diagnostic procedures, managing records, completing insurance coding, and providing for billing and collecting. Medical Assistants use computer technology to manage records, billing and other aspects of a medical office or clinic. Students participate in an externship each semester to gain experience in every aspect of the medical assistant's practice. Test of Adult Basic Education (TABE) may be required.

Pharmacy Technician

Career Technical Certificate – Health Sciences | Code: 53004 | 35 credits

The Pharmacy Technician program prepares individuals for employment as Pharmacy Technicians. The Pharmacy Technician works primarily in retail and hospital pharmacies under the supervision of a registered pharmacist in the packaging and distribution of medication. Test of Adult Basic Education (TABE) maybe required.

Phlebotomy Technician

Career Technical Certificate – Health Sciences | Code: 53003 | 5.50 credits

The Phlebotomy Technician program is designed to prepare students for employment in a hospital laboratory, blood center, or other health care facility to draw blood by venipuncture and capillary puncture. Students are taught safe and efficient work practices in obtaining adequate and correct blood specimens, labeling specimens, and transporting specimens correctly to the appropriate laboratory sections. The Center for Disease Control (CDC) guidelines for HIV/AIDS, Hepatitis B and other diseases are stressed.

Private Investigator Intern

Career Technical Certificate | Code: 57023 | 1.33 credits

The purpose of this 40 hour program is to prepare students for employment as Private Investigator Interns as required by Section 493.6203(6)(b) Florida Statutes. The student will learn what private investigation means and about obtaining information with reference crimes, identities, habits of persons or groups, credibility of witnesses, missing persons, location or recovery of lost or stolen property and more. School License DS 8900048

Private Security Officer

Career Technical Certificate | Code: 57006 | 2.27 credits

Part A The first 42 hours is designed to prepare students to apply for Class "D" Private Security Officer license in FL. Students will learn regulatory compliance, emergency procedures, ethics and entrepreneurship, courtroom procedures, traffic direction and crowd control, and more. Part B 28 hrs.is designed to prepare the student for compliance with the state minimum training standard for a class "G" (armed) security guard license. Special Fee School License DS 8900048

Professional Nursing (LPN-RN)

Career Technical Certificate | Code: 53018 | 30 credits

The Career Technical Certificate (CTC) in Professional Nursing (LPN-RN) program offers a streamlined pathway for individuals looking to transition from being a Licensed Practical Nurse (LPN) to a Registered Nurse (RN). Our program is designed to provide a comprehensive and focused curriculum that equips students with the essential skills and knowledge needed for a successful career in nursing. With a strong emphasis on practical training and theoretical understanding, we aim to empower our students to excel as registered nurses. By completing this program, individuals will be well-prepared to embark on a fulfilling and rewarding journey in the field of professional nursing.

Career Technical Certificates (CTC) Program Sheets

Miami Dade College

Advanced Automotive Service Technology – Tesla Technician
Career Technical Certificate | Code: 51000 | 800 Hours / 26.66 Credits
CIP (0647060413**)**
Effective Term: Spring 2020 (2203)

The Advanced Automotive Service Technology – Tesla Technician Career Technical Certificate prepares students to become entry-level technicians to the TESLA Motors technology. The coursework includes safety when working in or around high voltage, maintenance, regeneration braking, inverter power transfer, battery technologies, battery management systems, High-Voltage Bus & Charging, Pack Connector & Penthouse controls, and Autonomous technology. Electric vehicle applications and their integrated systems from TESLA Motors will be used to discuss physics of battery storage and material composition and High-Voltage generation systems. This program is suitable for students already working in the battery electric vehicle/Hybrid vehicle and energy technology field. This program is a requirement for TESLA Motors Technician. Technicians successfully completing this training can enter gainful employment as a Level I, Level II, or Level III technician, Mobile Service Technician or a Field Service Technician.

Course	Course Title	Hours	Credits	Pre-/Co-Requisites
PROGRAM REQUIREMENTS (800 Hours | 26.66 Credits)				
AER 0605	Tesla Electronic System Technician	400	13.33	
AER 0606	Tesla Maintenance Technician	400	13.33	

Miami Dade College

Aircraft Structural Assembly and Fabrication Apprenticeship
Career Technical Certificate | Code: 59005 | 4296 Hours / 143.2 Credits
CIP (0847060900**)**
Effective Term: Fall 2019 (2197)

The Career Technical Certificate (CTC) in Aircraft Structural Assembly and Fabrication Apprenticeship will prepare the student to perform scheduled and non-scheduled maintenance and repairs on aircraft. The student will assist aviation maintenance technicians in commercial jet modifications, minor and major maintenance checks and corrosion control and preventions, and line services for a wide array of commercial and military aircraft.

Course	Course Title	Hours	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS				
AMT 0044	Tools, Materials, and Processes 1	40		
AMT 0045	Tools, Materials, and Processes 2	40		
AMT 0046	Aircraft Materials, Hardware & Processes	68		AMT 0044/0045
AMT 0047	Applying the Design Process	53		AMT 0044/0045
AMT 0269	Aircraft Electrical Systems & Quality Control	64		AMT 0044/0045
AMT 0219	Aircraft Hydraulics & Aviation Mathematics	19		AMT 0044/0045
AMT 0509	Composites and Capstone Project	12		AMT0044,0045,0046,0047,0269,0219
AMT 0949	On the Job Training (OJT) Part 1	666.67		
AMT 0949C	On the Job Training (OJT) Part 2	666.67		
AMT 0950	On the Job Training (OJT) Part 3	666.67		
AMT 0950C	On the Job Training (OJT) Part 4	666.67		
AMT 0960	On the Job Training (OJT) Part 5	666.67		
AMT 0960C	On the Job Training (OJT) Part 6	666.67		

Miami Dade College

Central Sterile Processing Technician
Career Technical Certificate | Code: 53014 | 650 Hours / 21.66 Credits)
CIP (0351101201**)**
Effective Term: Fall 2022 (2227)

The Career Technical Certificate in Central Sterile Processing Technician is designed to educate and prepare graduates with skills required for entry-level employment as a member of the healthcare team. In addition, students will acquire extensive knowledge of legal and ethical responsibilities, anatomy, physiology, pathophysiology, microbiology, aseptic techniques, patient care procedures, surgical technology procedures, patient safety, and use and care of equipment and supplies.

Course	Course Title	Hours	Credits	Pre-/Co-Requisites
MAJOR CORE REQUIREMENTS (650 Hours / 21.66 Credits)				
HSC 0003	Introduction to Healthcare	75	2.5	
HSC 0003L	Introduction to Healthcare Lab	15	0.5	
STS 0013	Central Sterile Processing Technician	410	13.66	
STS 0019	Central Sterile Services Materials Management	150	5.00	

TABE REQUIREMENT
A student enrolling in a Career Technical Education (CTE) program of 450 or more clock hours is required to complete a basic skills test within the first six weeks of admission into the program. The Tests of Adult Basic Education (TABE) test provided by MDC satisfies this requirement. The minimum passing scores vary among the CTE programs. Students should speak with their program advisor to validate score expectations and testing exemptions. Students who complete the CTE program must meet basic skills competencies before a certificate of completion is awarded.

(Provide appropriate TABE Scores if certificate is 450 hours or higher. If not, put N/A.)
Mathematics: 9
Language: 9
Reading: 9

ADDITIONAL INFORMATION:
Students should check their individualized Degree Audit Report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami Dade. This outline includes current graduation requirements.

The final responsibility for meeting graduation requirements rests with the student.

Miami Dade College

Commercial Class B Driving
Career Technical Certificate | Code: 56016 |150 Hours / 5 Credits
CIP (0649020502**)**
Effective Term: Fall 2023 (2237)

The Career Technical Certificate in Commercial Class B Driving is designed to educate and prepare students for a Class B Commercial Driver License. The Truck Driver Heavy Florida Class B course prepares students for entry into the trucking and logistics industry. Students explore career opportunities and requirements of a professional class B truck driver. Students study vehicle safety, accident prevention, operating regulations, cargo handling, documentation procedures, pre-trip preparation, vehicle inspection, maintenance, service, control procedures, backing, maneuvering, road and hazardous driving skills, and licensing requirements.

Course	Course Title	Hours	Credits	Pre-/Co-Requisites
MAJOR CORE REQUIREMENTS (150 Hours / 5.00 Credits)				
TRA 0084	Truck Driver Heavy Florida Class "B"	150	5.00	

ADDITIONAL INFORMATION:
The final responsibility for meeting program completion requirements rests with the student.

Miami Dade College

Commercial Vehicle Driving
Career Technical Certificate | Code: 56015 |320 Hours / 10.67 Credits
CIP (0649020500**)**
Effective Term: Fall 2023 (2237)

The Career Technical Certificate in Commercial Vehicle Driving is designed to educate and prepare students for a Class "A" Commercial Driver License. The Tractor Trailer Truck Driver course will prepare students for entry into the trucking and logistics industry. Students explore career opportunities and requirements of a professional tractor trailer driver. Students will study vehicle safety, accident prevention, operating regulations, cargo handling, documentation procedures, pre-trip preparation, vehicle inspection, maintenance, service, control procedures, backing, coupling, uncoupling, maneuvering, road and hazardous driving skills, and licensing requirements.

Course	Course Title	Hours	Credits	Pre-/Co-Requisites
MAJOR CORE REQUIREMENTS (320 Hours / 10.67 Credits)				
TRA 0080	Tractor Trailer Truck Driver	320	10.67	

ADDITIONAL INFORMATION:
The final responsibility for meeting program completion requirements rests with the student.

Miami Dade College

Correctional Officer - State
Career Technical Certificate | Code: 57021 |420 Hours / 14 Credits
CIP (0743010200**)**
Effective Term: Fall 2017 (20177)

The Correctional Officer – State program prepares students for certification as Correctional Officers in the State of Florida. All criminal justice standards and training, Department of Education, and local standards will be met. Graduates are eligible for employment with any correctional agency in the state upon graduation from the program and successful completion of the State Certification Exam. Topics include human behavior, law, communications, facility operations, first aid and other related topics. There is emphasis on practical applications and competency-based performance. This program is offered at the School of Justice. Students seeking entrance into the MDC School of Justice basic recruit training programs for a career in corrections are required to pass a physical screening, physical agility, Voice Stress Analysis Test, psychological test, fingerprinting and background check and the Florida Basic Abilities Test (FBAT). For more information, please contact the School of Justice, FBAT Department and/or visit the FBAT Web site, at www.mdc.edu.north.fbat.

Course	Course Title	Hours	Credits	Pre-/Co-Requisites
PROGRAM REQUIREMENTS				
COMPLETION POINT - A (420 Hours | 14.00 Credits)				
CJK 0031	CMS First Aid for Criminal Justice Officers	1.33		
CJK 0051	CMS Criminal Justice Defensive Tactics	2.66		
CJK 0040	CMS Criminal Justice Firearms	2.66		
CJK 0300	Introduction to Corrections	1.06		
CJK 0305	CJSTC Communications	1.33		
CJK 0310	Officer Safety	0.53		
CJK 0315	Facility and Equipment	0.26		
CJK 0320	Intake and Release	0.60		
CJK 0325	Supervising in a Correctional Facility	1.33		
CJK 0330	Supervising Special Populations	0.66		
CJK 0335	Responding to Incidents and Emergencies	0.53		
CJK 0340	Officer Wellness and Physical Abilities	1.00		

Miami Dade College

Dental Assisting Technology and Management
Career Technical Certificate | Code: 53015 | 1230 hours / 41 credits
CIP (0351060112**)**
Effective Term: Fall 2023 (2237)

The Career Technical Certificate in Dental Assisting Technology and Management is designed to educate and prepare graduates with skills required for entry-level employment as a member of the dental healthcare team. In addition, students will acquire extensive knowledge and skills to offer direct chairside assistance to the dentist, expose dental radiographs, and educate and instruct patients in preventive dental care. Students will be trained in infection control procedures, disease prevention, dental procedures and instruments and business office procedures. TABE Requirement: Computation (Mathematics): 10 and Communications (Reading Language Arts): 10.

Course	Course Title	Hours	Credits	Pre-/Co-Requisites
MAJOR CORE REQUIREMENTS (1230 Hours | 41.00 Credits)				
Semester 1				
DEA 0020	Pre-Clinical Procedures Theory	90	3	
DEA 0020L	Pre-Clinical Practice Lab	90	3	
DEA 0031	Oral Pathology	30	1	
DEA 0132	Dental Nutrition	30	1	
DES 0103	Dental Materials	60	2	
DES 0103L	Dental Materials Lab	90	3	
DES 0021	Dental Anatomy	90	3	
HSC 0003	Introduction to Health Care	75	2.5	
HSC 0003L	Introduction to Health Care Lab	15	0.5	
Semester 2				
DES 0205	Dental Radiology	60	2	
DES 0205L	Dental Radiology Lab	60	2	
DES 0206	Dental Radiology II	30	1	Prerequisite: DES 0205
DES 0206L	Dental Radiology II Lab	30	1	Prerequisite: DES 0205L
DES 0501	Dental Practice Management	30	1	
DES 0602	Pharmacology / Dental Office Emergencies	30	1	
DES 0830	Expanded Functions Theory	30	1	
DES 0830L	Expanded Functions Lab	30	1	
DEA 0930	Dental Assisting Seminar	30	1	
Semester 3				
DEA 0800L	Clinical Practice I	150	5	Prerequisites: DEA 0020, DEA 0020L
DEA 0804L	Clinical Practice II	180	6	Prerequisite: DES 0800L

Miami Dade College

Firefighter Minimum Standards
Career Technical Certificate | Code: 57004 | 492 Hours / 16.4 Credits
CIP (0743020304**)**
Effective Term: Fall 2022 (2227)

This program offers a broad foundation of knowledge and skills to prepare the student for employment as a frontline, entry-level firefighter. The program content includes, but is not limited to, orientation to the fire service, fire alarms and communication, vehicles, apparatus and equipment, fire behavior, portable extinguishers, fire streams, fundamentals of extinguishment, ladders, hoses, tools and equipment, forcible entry, salvage, overhaul, ventilation, rescue, protective breathing equipment, first responder emergency medical techniques, water supplies, principles of in-service inspections, safety, controlled burning, and employability skills. Students who successfully complete the program will be required to pass a written and practical exam to obtain certification as a Firefighter 2 from the Florida Bureau of Fire Standards and Training. Students must be a minimum of 18 years old to participate. Fire Academy Students Only. (492 contact hours)

Course	Course Title	Hours	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (492 Hours | 16.40 Credits)				
FFP 0021	Firefighter Minimum Standards	492	16.4	

Miami Dade College

Firefighter/Emergency Medical Technician - Combined
Career Technical Certificate | Code: 58000 | 792 Hours / 26.40 Credits
CIP (0743020313**)**
Effective Term: Fall 2022 (2227)

The purpose of this program is to provide the necessary training required for students to become certified firefighters as well as licensed Emergency Medical Technicians. It is not intended for those who are currently certified/licensed as either firefighters or EMTs. Students wishing to add an additional certification to an existing credential must enroll in either the Firefighter program or the Emergency Medical Technician program. Students must successfully complete the Firefighter Minimum Standards portion before moving on to the Emergency Medical Technician portion. This program (58000) is eligible for financial aid. Students must be a minimum of 18 years old to participate. Fire Academy Students Only. (792 contact hours)

Course	Course Title	Hours	Credits	Pre-/Co-Requisites
MAJOR COURSE REQUIREMENTS (792 Hours | 26.4 Credits)				
EMS 0110	Emergency Medical Technician	300	10	
FFP 0021	Firefighter Minimum Standards	492	16.40	

Miami Dade College

Florida Law Enforcement Academy
Career Technical Certificate | Code: 57022 | 25.66 credits
CIP (0743010700**)**
Effective Term: Spring 2022 (2223)

The Florida Law Enforcement Academy program prepares students for certification as Police Officers in the State of Florida. All criminal justice standards and training, Department of Education, and local standards will be met. Graduates are eligible for employment with any law enforcement agency in the state upon graduation from the program and successful completion of the State Certification Exam. Topics include law, human issues, patrol, traffic, investigations and communications and more. There is an emphasis on practical applications and competency-based performance. This program is offered at the School of Justice. Students seeking entrance into the MDC School of Justice basic recruit training programs for a career in law enforcement are required to pass a physical screening, physical agility, Voice Stress Analysis Test, psychological test, fingerprinting and background check and the Florida Basic Abilities Test (FBAT). For more information, please contact the School of Justice, Assessment Center and/or visit the Assessment Center web site, https://www.mdc.edu/justice/assessment- center.aspx.

Course	Course Title	Hours	Credits	Pre-/Co-Requisites
PROGRAM REQUIREMENTS				
CJK 0002	Introduction to Law Enforcement	0.40		
CJK 0016	Communications	0.80		
CJK 0018	Legal	2.13		
CJK 0019	Interviewing and Report Writing	1.87		
CJK 0020	Law Enforcement Vehicle Operations	1.60		
CJK 0021	Serving Your Community	1.13		
CJK 0031	First Aid for Criminal Justice Officers	1.33		
CJK 0040	Criminal Justice Firearms	2.67		
CJK 0051	Criminal Justice Defensive Tactics	2.67		
CJK 0063	Fundamentals of Patrol	1.33		
CJK 0072	Crimes Against Persons	1.60		
CJK 0073	Crimes Involving Property and Society	0.40		
CJK 0079	Crime Scene Follow-up Investigations	1.13		
CJK 0093	Critical Incidents	1.47		
CJK 0096	Criminal Justice Officer Physical Fitness Training	2.00		
CJK 0400	Traffic Incidents	0.40		
CJK 0401	Traffic Stops	0.80		
CJK 0402	Traffic Crash Investigations	1.00		
CJK 0403	DUI Traffic Stops	0.80		
CJK 0421	CEW/Dart-Firing Stun Gun	0.13		

ADDITIONAL INFORMATION:
Students should check their individualized Degree Audit Report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami Dade. This outline includes current graduation requirements.

The final responsibility for meeting graduation requirements rests with the student.

* End of Program Sheet *

Miami Dade College

Licensed Practical Nurse (LPN)
Career Technical Certificate | Code: 53020 | 1350 Hours / 45 Credits
CIP (0351390101**)**
Effective Term: Fall 2022 (2227)

This one-year planned certificate program prepares a safe and effective practitioner for the beginning levels of patient care. The practical nurse functions to the level of their educational preparation and under the direct supervision of a registered nurse, mid-level provider, or licensed physician. The curriculum prepares the graduate to challenge the state board examination for practical nurse licensure. The program is approved by the Florida Board of Nursing (FBON). Graduates are eligible to apply to write the National Council Licensing Examination for Registered Nurses (NCLEX-PN). Selection is based on scores on pre-admission testing and completion of required prerequisite courses. See the School of Nursing Information website for more specific details about admission requirements. Pre-Admission tests – Applicants must take the Test of Adult Basic Education (TABE) and Test of Essential Academic Skills (TEAS).

Course	Course Title	Hours	Credits	Pre-/Co-Requisites
Test of Adult Basic Education (TABE)				
Computation (Mathematics)		11		
Communications (Reading Language Arts)		11		
Test of Essential Academic Skills (TEAS)				
Composite Score	58			
MAJOR COURSE REQUIREMENTS – 1350 Hours | 45 Credits				
Discipline Courses First Semester (345 Hours | 11.50 Credits Required) (Offered Fall & Spring)				
PRN 0005C	Fundamentals of Nursing Terminology	150	5	
PRN 0021C	Anatomy and Physiology and Medical 1	105	3.5	
PRN 0035C	Pharmacology	90	3	
Discipline Courses Second Semester (405 Hours | 13.5 Credits Required)				
PRN 0210C	Adult Health I	300	10 credits	Prerequisites: PRN 0005C, PRN 0021C, PRN 0035C
PRN 0082C	Anatomy and Physiology and Medical Terminology 2	105	3.5	Prerequisites: PRN 0005C, PRN 0021C, PRN 0035C
Discipline Courses Third Semester (600 Hours | 20 Credits Required)				
PRN 0211C	Adult Health II	300	10	Prerequisite: PRN 0210C, PRN 0082C
PRN 0006C	Professional Role Transition	150	5	Prerequisite: PRN 0210C, PRN 0082C
PRN 0130C	Special Populations	150	5	Prerequisite: PRN 0210C, PRN 0082C

Additional Information:
Due to the limited number of students that can progress to discipline courses in the School of Nursing Licensed Practical Nursing Program, it is important that students be properly informed. For information, advisement, application forms and deadline dates, interested students should contact the New Student Center, Medical Campus.

Minimum GPA of 2.0 is required and a TABE Score of Computation (Mathematics): 11 and Communications (Reading Language Arts): 11.

Licensing requirement for the Florida Board of Nursing must be met please review at https://floridasnursing.gov/licensing/licensed-practical-nurse-registered-nurse-by-examination/.

Students should check their academic requirement report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami-Dade. This outline includes current graduation requirements.

The final responsibility for meeting graduation requirements stated in your academic requirement report rests with the student

Miami Dade College

Low Voltage Technician
Career Technical Certificate | Code: 56010 |750 hours
CIP (0647010106**)**
Effective Term: Summer 2023 (2235)

The Low Voltage Technician certificate program is designed to prepare students for employment or advanced training in a variety of occupations in the Electronics Technology Integration industry. The program focuses on technical and product skills, underlying principles of technology, planning, management, finance, labor issues, health, safety and environmental issues.

Course	Course Title	Hours	Credits	Pre-/Co-Requisites

TABE REQUIREMENT
A student enrolling in a Career Technical Education (CTE) program of 450 or more clock hours is required to complete a basic skills test within the first six weeks of admission into the program. The Tests of Adult Basic Education (TABE) test provided by MDC satisfies this requirement. The minimum passing scores vary among the CTE programs. Students should speak with their program advisor to validate score expectations and testing exemptions. Students who complete the CTE program must meet basic skills competencies before a certificate of completion is awarded.

(Provide appropriate TABE Scores if certificate is 450 hours or higher. If not, put N/A.)
Mathematics: 10
Language: 10
Reading: 10

MAJOR CORE REQUIREMENTS (750 hours)

EEV 0162	Low Voltage Technician 1	150		
EEV 0163	Low Voltage Technician 2	150		Prerequisite: EEV 0162
EEV 0164	Low Voltage Technician 3	150		Prerequisites: EEV 0162, EEV 0163
EEV 0165	Low Voltage Technician 4	150		Prerequisites: EEV 0162, EEV 0163, EEV 0164
EEV 0166	Low Voltage Technician 5	150		Prerequisites: EEV 0162, EEV 0163, EEV 0164, EEV 0165

Miami Dade College

Massage Therapy - Accelerated Option
Career Technical Certificate | Code: 53022 | 750 Hours / 25 Credits
CIP (0351350102**)**
Effective Term: Fall 2017 (2207)

The two-semester program prepares individuals to provide various techniques of massage of the back, head, and feet including reflexology, rolling, trigger point therapy. There is an emphasis on the therapist/client relationship and record management for clients and payment. Upon successful completion of this program, the graduate is eligible to sit for the State of Florida Massage Therapy licensure examination. Test of Adult Basic Education (TABE) is required.

Course	Course Title	Hours	Credits	Pre-/Co-Requisites
PROGRAM REQUIREMENTS				
COMPLETION POINT - A (90.00 Hours | 3.00 Credits)				
HSC 0003	Introduction to Health Care	90	3.00	
COMPLETION POINT - B (660.00 hours | 22.00 Credits)				
MSS 0156	Anatomy and Physiology for Massage Therapy	75	2.50	
MSS 0156L	Anatomy and Physiology for Massage Therapy Laboratory	75	2.50	
MSS 0215	History and Standards for Massage Therapy	30	1.00	
MSS 0250	Introduction to Massage Therapy	30	1.00	
MSS 0250L	Introduction to Massage Therapy Laboratory	180	6.00	
MSS 0281	Allied Modalities	105	3.50	
MSS 0300	Hydrotherapy Modalities	30	1.00	
MSS 0300L	Hydrotherapy Modalities Laboratory	45	1.50	
MSS 0803C	Massage Therapy Clinical Practicum	90	3.00	

Miami Dade College

Massage Therapy - Generic
Career Technical Certificate | Code: 53021 | 750 Hours / 25 Credits
CIP (0351350102**)**
Effective Term: Fall 2017 (2207)

The two-semester program prepares individuals to provide various techniques of massage of the back, head, and feet including reflexology, rolling, trigger point therapy. There is an emphasis on the therapist/client relationship and record management for clients and payment. Upon successful completion of this program, the graduate is eligible to sit for the State of Florida Massage Therapy licensure examination. Test of Adult Basic Education (TABE) is required.

Course	Course Title	Hours	Credits	Pre-/Co-Requisites
PROGRAM REQUIREMENTS				
COMPLETION POINT - A (90.00 Hours | 3.00 Credits)				
HSC 0003	Introduction to Health Care	90	3.00	
COMPLETION POINT - B (660.00 hours | 22.00 Credits)				
MSS 0156	Anatomy and Physiology for Massage Therapy	75	2.50	
MSS 0156L	Anatomy and Physiology for Massage Therapy Laboratory	75	2.50	
MSS 0215	History and Standards for Massage Therapy	30	1.00	
MSS 0250	Introduction to Massage Therapy	30	1.00	
MSS 0250L	Introduction to Massage Therapy Laboratory	180	6.00	
MSS 0281	Allied Modalities	105	3.50	
MSS 0300	Hydrotherapy Modalities	30	1.00	
MSS 0300L	Hydrotherapy Modalities Laboratory	45	1.50	
MSS 0803C	Massage Therapy Clinical Practicum	90	3.00	

Miami Dade College

Massage Therapy - Transitional Option
Career Technical Certificate | Code: 53023 | 750 Hours / 25 Credits
CIP (0351350102**)**
Effective Term: Fall 2017 (2207)

The two-semester program prepares individuals to provide various techniques of massage of the back, head, and feet including reflexology, rolling, trigger point therapy. There is an emphasis on the therapist/client relationship and record management for clients and payment. Upon successful completion of this program, the graduate is eligible to sit for the State of Florida Massage Therapy licensure examination. Test of Adult Basic Education (TABE) is required.

Course	Course Title	Hours	Credits	Pre-/Co-Requisites
PROGRAM REQUIREMENTS				
COMPLETION POINT - A (90.00 Hours | 3.00 Credits)				
HSC 0003	Introduction to Health Care	90	3.00	
COMPLETION POINT - B (660.00 hours | 22.00 Credits)				
MSS 0156	Anatomy and Physiology for Massage Therapy	75	2.50	
MSS 0156L	Anatomy and Physiology for Massage Therapy Laboratory	75	2.50	
MSS 0215	History and Standards for Massage Therapy	30	1.00	
MSS 0250	Introduction to Massage Therapy	30	1.00	
MSS 0250L	Introduction to Massage Therapy Laboratory	180	6.00	
MSS 0281	Allied Modalities	105	3.50	
MSS 0300	Hydrotherapy Modalities	30	1.00	
MSS 0300L	Hydrotherapy Modalities Laboratory	45	1.50	
MSS 0803C	Massage Therapy Clinical Practicum	90	3.00	

Miami Dade College

Medical Assisting
Career Technical Certificate | Code: 53007 | 1299 Hours / 43.30 Credits
CIP (0351080102**)**
Effective Term: Fall 1999 (1197)

The Medical Assisting program, which is 1 year (3 semesters) in length, prepares individuals to provide health services in ambulatory out-patient facilities, including medical offices and clinics. Medical Assistants participate in diagnostic, clinical, and administrative functions. Diagnostic functions include drawing blood, performing basic laboratory tests, and taking EKG's and X-Rays. Clinical functions include obtaining vital signs, preparing patients for and assisting with examinations and procedures, administering medications and performing treatments. Administrative functions include serving as receptionists, scheduling appointments and diagnostic procedures, managing records, completing insurance coding, and providing for billing and collecting. Medical Assistants use computer technology to manage records, billing and other aspects of a medical office or clinic. Students participate in an externship each semester to gain experience in every aspect of the medical assistant's practice. Test of Adult Basic Education (TABE) is required.

Course	Course Title	Hours	Credits	Pre-/Co-Requisites
PROGRAM REQUIREMENTS				
Pre-Requisite Courses				
HSC 0003	Introduction to Health Care	2.5		
HSC 0003L	Introduction to Health Care Lab	0.5		
First Semester (Fall)				
MEA 0231	Anatomy & Physiology and Medical Terminology	2.3		
MEA 0234	Pathophysiology & Disease for Medical Assistants	4.0		
MEA 0242	Pharmacology	3.0		
MEA 0204	Theoretical Aspects of Clinical Skills	1.0		
MEA 0204L	Applications of Clinical Skills	2.0		
MEA 0802	Clinical Externship	3.0		
Second Semester (Spring)				
MEA 0322	Office Management & Professional Issues for the Medical Assistant	3.0		
MEA 0334C	Medical Coding and Insurance Billing with Collections		4.0	
MEA 0343	Computers in the Medical Office	3.0		
MEA 0810	Administrative Externship	3.0		
Third Semester (Summer)				
MEA 0254	Physician Office Laboratory Procedures	2.0		
MEA 0254L	Physician Office Laboratory Procedures Applications		2.0	
MEA 0258	Radiology in the Physician Office	3.0		
MEA 0540	EKG, Emergency Procedures	2.0		
MEA 0832	Diagnostic Externship	3.0		

Miami Dade College

Pharmacy Technician
Career Technical Certificate| Code: 53025 | 1050 Clock Hours / 35 Credits)
CIP (0351080506**)**
Effective Term: Fall 2017 (2177)

The Pharmacy Technician program prepares individuals for employment as Pharmacy Technicians. The Pharmacy Technician works primarily in retail and hospital pharmacies under the supervision of a registered pharmacist in the packaging and distribution of medication. Test of Adult Basic Education (TABE) is required.

Course	Course Title	Hours	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS				
COMPLETION POINT – A (90.00 Clock Hours | 3.00 Credits)				
HSC 0003	Introduction to Health Care	90.00	3.00	
COMPLETION POINT - B (960.00 Clock Hours | 32.00 Credits)				
PTN 0003	Introduction to Pharmacy Practice & Medical Terminology	90.00	3.00	
PTN 0004	Pharmacy Practitioner Applications	90.00	3.00	
PTN 0006	Pharmacy Calculations	90.00	3.00	
PTN 0021	Drug Classifications	90.00	3.00	
PTN 0041	Pharmacy Technician Hospital Field Experience	30.00	1.00	
PTN 0049	Pharmacy Technician Retail Store Field Experience	300.00	10.00	

Miami Dade College

Phlebotomy Technician
Career Technical Certificate | Code 53003 | 165.00 Clock Hours | 5.50 Credits
CIP (0351100901**)**
Effective Term: **Fall 2017 (2177)**

The Phlebotomy Technician program is designed to prepare students for employment in a hospital laboratory, blood center, or other health care facility to draw blood by venipuncture and capillary puncture. Students are taught safe and efficient work practices in obtaining adequate and correct blood specimens, labeling specimens, and transporting specimens correctly to the appropriate laboratory sections. The Center for Disease Control (CDC) guidelines for HIV/AIDS, Hepatitis B and other diseases are stressed.

Course	Course Title	Hours	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS				
COMPLETION POINT – A (90.00 Clock Hours | 3.00 Credits)				
HSC 0003	Introduction to Health Care	90.00	3.00	
COMPLETION POINT – B (75.00 Clock Hours | 2.50 Credits)				
MLT 0041	Phlebotomy Theory	15.00	0.50	
MLT 0061	Practical Aspects of Phlebotomy	15.00	0.50	
MLT 0048	Phlebotomy Practicum	45.00	1.50	

Miami Dade College

Private Investigator Intern
Career Technical Certificate | Code: 57023 | 1.33 Credits
CIP (0743010907**)**
Effective Term: Fall 2017 (2017-1)

The purpose of this program is to prepare students for employment as Private Investigator Interns as required by Section 493.6203(6)(b) Florida Statutes, offered in a 24-contact hour course and a 16 contact hour course.

Course	Course Title	Hours	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS				
COMPLETION POINT A (40.00 hours)				
SCY 0051	Private Investigator Intern Course A	0.80		
SCY 0052	Private Investigator Intern Course B	0.53		

Miami Dade College

Private Security Officer
Career Technical Certificate | Code: 57006 | 2.27 Credits
CIP (0743010900**)**
Effective Term: Fall 2017 (20177)

The Private Security Officer program consists of two courses required by the State of Florida prior to licensing as a Security Officer. The Basic Phase A course allows the officer to obtain a temporary license. Officers must complete the basic Phase B course within two years to maintain their license.

Course	Course Title	Hours	Credits	Pre-/Co-Requisites
GENERAL EDUCATION REQUIREMENTS				
COMPLETION POINT - A (40.00 hours)				
SCY 0501	Basic Security Guard Training	1.33		
COMPLETION POINT - B (28.20 hours)				
CJT 0801	Private Security Guard Training 2: Class “G” License	0.94		

Professional Nursing (LPN-RN)
Career Technical Certificate | Code: 53018 | 900 Hours / 30.00 Credits
CIP (0351380102**)**
Effective Term: Fall 2024 (2247)

The Career Technical Certificate (CTC) in Professional Nursing (LPN-RN) program offers a streamlined pathway for individuals looking to transition from being a Licensed Practical Nurse (LPN) to a Registered Nurse (RN). Our program is designed to provide a comprehensive and focused curriculum that equips students with the essential skills and knowledge needed for a successful career in nursing. With a strong emphasis on practical training and theoretical understanding, we aim to empower our students to excel as registered nurses. By completing this program, individuals will be well-prepared to embark on a fulfilling and rewarding journey in the field of professional nursing.

Course	Course Title	Hours	Credits	Pre-/Co-Requisites
PROGRAM REQUIREMENTS				
NSG0080	Nursing Transitions	111	3.7	
NSG0081	Concepts of Geriatrics and Pharmacology in Nursing	102	3.4	
NSG0082	Psychiatric Nursing	102	3.4	
NSG0083	Medical Nursing	102	3.4	
NSG0084	Surgical Nursing	102	3.4	
NSG0085	Pediatric Nursing	102	3.4	
NSG0086	Obstetric Nursing	102	3.4	
NSG0087	Professional Nursing	91	3.03	
NSG0089	Senior Practicum Intensive	86	2.87	

Important Information
Due to the limited number of students that can progress to discipline courses in the School of Nursing Professional Nursing (LPN-RN) Program, it is important that students be properly informed. For information, advisement, application forms and deadline dates, interested students should contact the New Student Center, Medical Campus.

A minimum GPA of 2.0 is required and students must take the Test of Adult Basic Education (TABE). The following scores are required:
Computation (Mathematics): 11
Communications (Reading and Language Arts): 11

Licensing requirement for the Florida Board of Nursing must be met please review at:
https://floridasnursing.gov/licensing/licensed-practical-nurse-registered-nurse-by-examination/

Students should check their academic requirement report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami-Dade. This outline includes current graduation requirements.

The final responsibility for meeting graduation requirements stated in your academic requirement report rests with the student.

ACADEMIC PROGRAMS – PROGRAM SHEETS AND CURRICULUM GUIDES

Bachelor of Applied Science (BAS)

- Clinical Laboratory Science
- Film, Television & Digital Production
- Health Science - Histotechnology
- Health Science - Physician Assistant Studies
- Public Safety Management - Crime Scene Investigation
- Public Safety Management - Criminal Justice
- Public Safety Management - Emergency Management
- Supervision and Management
- Supervision and Management - Accounting
- Supervision and Management - Digital Marketing Concentration
- Supervision and Management - Hospitality Management
- Supervision and Management - Human Resource Management
- Supply Chain Management
- Supply Chain Management – Procurement Management
- Supply Chain Management – Project Management
- Supply Chain Management – Supply Chain Analytics

Bachelor of Science (BS)

- Bachelor of Science in Nursing (RN to BSN)
- Biological Sciences - Biopharmaceutical Sciences
- Biological Sciences - Biotechnology
- Biological Sciences - Science Education
- Cybersecurity
- Data Analytics
- Early Childhood Education
- Electrical and Computer Engineering Technology
- Exceptional Student Education (K-12)
- Information Systems Technology - Networking
- Information Systems Technology - Software Engineering
- Secondary Mathematics Education
- Secondary Science Education - Biology

Certificate of Professional Preparation (CPP)

- Cyber Defense
- Educator Preparation Institute
- Instructional Design and Technology
- Networking
- Reading Endorsement
- Software Engineering
- Vulnerability Assessment

Associate in Arts Degree Pathways

- Accounting
- Agriculture
- Anthropology
- Architecture
- Area & Ethnic Studies
- Art or Art Education
- Atmospheric Science & Meteorology
- Biology
- Biotechnology
- Building Construction
- Business Administration
- Chemistry
- Computer Arts Animation
- Computer Information Systems
- Computer Science
- Criminal Justice Administration
- Dance
- Dietetics
- Drama or Drama Education
- Economics
- Engineering - Architectural
- Engineering - Biomedical
- Engineering - Chemical
- Engineering - Civil
- Engineering - Computer
- Engineering - Electrical
- Engineering - Geomatics (Surveying and Mapping)
- Engineering - Industrial
- Engineering - Mechanical
- Engineering - Ocean
- English/Literature & English Education
- Environmental Sciences
- Exercise Science
- Foreign Language
- Forestry
- Geology
- Graphic or Commercial Arts
- Health Services Administration
- History
- Hospitality Administration/Travel & Tourism
- Interior Design
- International Relations
- Landscape Architecture
- Mass Communications/Journalism
- Mathematics
- Music or Music Education
- Philosophy
- Physical Education Teaching & Coaching
- Physics
- Political Science
- Pre-Bachelor of Arts
- Pre-Law
- Pre-Medical Science/Dentistry

- Pre-Medical Technology
- Pre-Nursing
- Pre-Occupational Therapy
- Pre-Optometry
- Pre-Pharmacy
- Pre-Physical Therapy
- Pre-Veterinary Medicine
- Psychology
- Public Administration
- Recreation
- Religion
- Social Work
- Sociology
- Speech Pathology & Audiology
- Teaching (Elementary)
- Teaching (Exceptional Student Education)
- Teaching (Pre-Elementary/Early Childhood)
- Teaching (Secondary)
- Teaching Secondary (Biology)
- Teaching Secondary (Chemistry)
- Teaching Secondary (Earth/Space)
- Teaching Secondary (English/Foreign Languages)
- Teaching Secondary (Mathematics Education)
- Teaching Secondary (Physics)
- Teaching Secondary (Social Science)
- Teaching Secondary (Vocational: Business, Technical, Home)

Associate in Science

- Accounting Technology
- Animation & Game Art
- Applied Artificial Intelligence
- Architectural Design & Construction Technology
- Aviation Administration
- Aviation Maintenance Management
- Biomedical Engineering Technology
- Biotechnology
- Biotechnology - Bioinformatics
- Biotechnology - Chemical Technology
- Building Construction Technology
- Business Administration
- Business Intelligence Specialist
- Civil Engineering Technology
- Clinical Laboratory Science
- Computer Crime Investigation
- Computer Engineering Technology
- Computer Information Technology
- Computer Programming and Analysis - Business Applications Programming
- Computer Programming and Analysis - Internet of Things (IoT) Applications
- Computer Programming and Analysis - Mobile Applications Development
- Crime Scene Technology - Crime Scene Investigation
- Crime Scene Technology - Forensic Science
- Criminal Justice Technology
- Culinary Arts Management
- Cybersecurity
- Database Technology - Oracle Database Administration
- Dental Hygiene
- Diagnostic Medical Sonography Specialist
- Early Childhood Education
- Early Childhood Education - Administrators
- Early Childhood Education - Infant Toddler
- Early Childhood Education - Preschool
- Electronics Engineering Technology
- Emergency Medical Services
- Entrepreneurship
- Fashion Design
- Fashion Merchandising
- Film Production Technology
- Financial Services - Banking
- Financial Services - Wealth Management
- Fire Science Technology
- Funeral Services
- Game Development & Design
- Graphic Design Technology
- Graphic Internet Technology
- Health Information Technology
- Health Science - Health Services Management
- Health Sciences
- Histologic Technology
- Hospitality & Tourism Management
- Interior Design Technology
- Landscape & Horticulture Technology
- Marketing
- Music Business - Business Management
- Music Business - Creative Performance
- Music Business - Creative Production
- Networking Services Technology - Enterprise Cloud Computing
- Networking Services Technology - Network Infrastructure
- Nuclear Medicine Technology
- Nursing - R.N. (Accelerated)
- Nursing - R.N. (Generic Full-Time)
- Nursing - R.N. (Generic Part-Time)
- Nursing - R.N. (Transitional Full-Time)
- Nursing - R.N. (Transitional Part-Time)
- Opticianry
- Paralegal Studies - ABA Approved
- Photographic Technology
- Physical Therapist Assistant
- Professional Pilot Technology
- Radio & Television Broadcast Programming
- Radiation Therapy
- Radiography
- Respiratory Care

- Respiratory Care (Accelerated) - CRT to RRT
- Sign Language Interpretation
- Social and Human Services - Addictions Studies
- Social and Human Services - Generalist
- Surgical Technology
- Translation/Interpretation Studies
- Transportation and Logistics
- Veterinary Technology

Advanced Technical Certificate (ATC)

- Biotechnology
- Biotechnology - Bioinformatics
- Biotechnology - Chemical Technology
- Certified Flight Instructor
- Compensation and Benefits
- Computed Tomography
- Hospitality Management
- Human Resources Management
- Magnetic Resonance Imaging
- Procurement Management
- Project Management
- Supply Chain Analytics

College Credit Certificate (CCC)

- Accounting and Budgeting
- Accounting Technology Management
- Addiction Studies
- Air Cargo Management
- Airline Maintenance Procedures and Records Management
- Airline/Aviation Management
- Airport Management
- American Sign Language
- Artificial Intelligence Awareness
- Artificial Intelligence Practitioner
- Audio Technology
- Automation
- Biotechnology
- Building Construction Specialist
- Business Entrepreneurship Operations - Family-Owned Business
- Business Entrepreneurship Operations - Social Venture
- Business Entrepreneurship Operations – Start-Up Venture
- Business Entrepreneurship Specialist - Family-Owned Business
- Business Entrepreneurship Specialist - Social Venture
- Business Entrepreneurship Specialist - Start-Up Venture
- Business Industry Operations
- Business Intelligence Professional
- Business Operations - Business Management
- Business Operations - Human Resources
- Business Operations - Marketing
- Business Operations - Small Business
- Business Specialist - Business Management
- Business Specialist - General Business
- Business Specialist - Human Resources
- Business Specialist - International Business
- Business Specialist - Marketing
- Business Specialist - Small Business
- Chef Apprentice
- Cisco Certified Network Associate (CCNA)
- Commercial Transport Pilot
- Computer Aided Design Assistant
- Computer Aided Design Operator
- Computer Programmer - Business Applications
- Computer Programmer - Mobile Applications Development
- Crime Scene Technician
- Cruise Line Operations
- Culinary Arts Management Operations
- Cybersecurity Analyst
- Digital Marketing Specialist
- Digital Marketing Strategy
- Early Childhood Education - Administrator
- Early Childhood Education - Child Development Early Intervention Specialization
- Early Childhood Education - Early Childhood Education Inclusion Specialization
- Early Childhood Education - Preschool
- Emergency Medical Technician
- Endoscopic Technician
- Engineering Technology Support Specialist
- Enterprise Cloud Computing
- Film Production Fundamentals
- Florida Funeral Director
- Food and Beverage Management
- Food and Beverage Operations
- Food and Beverage Specialist
- Geographic Information Systems Technology
- Graphic Design Support
- Health Care Services Specialist
- Healthcare Informatics Specialist
- Help Desk Support Technician
- Homeland Security
- Horticulture Professional
- Horticulture Specialist
- Infant/Toddler Specialization
- Information Technology Support
- Intelligence Studies
- Intermodal Freight Transportation
- International Freight Transportation
- Internet of Things (IoT) Applications
- Lean Manufacturing
- Lending
- Logistics and Transportation Specialist
- Mechatronics
- Medical Coder/Biller

- Mental Health - Neuroscience and Aging
- Microcomputer Repairer/Installer
- Network Server Administration
- Network Systems Developer
- Oracle Certified Database Administrator
- Paramedic
- Passenger Service Agent
- Patternmaking and Construction
- Rapid Prototyping Specialist
- Rooms Division Management
- Rooms Division Operations
- Rooms Division Specialist
- Sales and Customer Management
- Solar Energy Systems Specialist
- Tax Specialist
- Television Studio Production
- Translation and Interpretation
- Virtual and Augmented Reality Technologies

Career Technical Certificate (CTC)

- Advanced Automotive Service Technology - Tesla Technician
- Aircraft Structural Assembly and Fabrication Apprenticeship
- Central Sterile Processing Technician
- Commercial Class B Driving
- Commercial Vehicle Driving
- Correctional Officer - State
- Dental Assisting Technology and Management
- Fire Fighter Minimum Standards
- Fire Fighter/Emergency Medical Technician - Combined
- Florida Law Enforcement Academy
- Licensed Practical Nursing (LPN)
- Low Voltage Technician
- Massage Therapy - Accelerated Option
- Massage Therapy - Generic Option
- Massage Therapy - Transitional Option
- Medical Assisting
- Pharmacy Technician
- Phlebotomy Technician
- Private Investigator Intern
- Private Security Officer

COLLEGEWIDE ACADEMIC SCHOOLS

The College has adopted a management approach to the delivery of occupational and technical education, including respective transfer options through a system of collegewide schools. The primary objective is to serve students more effectively and efficiently, provide more accessible programs countywide, and be more responsive to the needs of business and industry.

Benjamín León School of Nursing

The Benjamín León School of Nursing (BLSON) is accredited by the Accreditation Commission for Education in Nursing (ACEN) (3390 Peachtree Road NE, Suite 1400, Atlanta, Georgia 30326,404-975-5000, info@acenursing.org) and Commission on Collegiate Nursing Education (CCNE) (655 K Street, NW, Suite 750 Washington, DC 20001, 202-887-6791). The BLSON offers an Associate in Science in Nursing (ASN) and a Bachelor of Science in Nursing (BSN) degree to provide students and practicing nurses with a high- quality, accessible, cost-effective and seamless academic program designed to meet the critical workforce need for baccalaureate-prepared nurses in the state of Florida. Students entering the BSN program must have an earned Associate in Science in Nursing (ASN) from a regionally accredited institution/regionally accredited ASN program and an active license as a registered professional nurse (RN).

The Benjamín León School of Nursing also offers the Associate in Science degree in Nursing, leading to eligibility to apply for the licensing examination for registered nurse practice (NCLEX-RN). The Associate in Science program offers four options designed to meet the needs of individual learners (generic, transitional bridge and accelerated and part-time tracks) and all combine class work with clinical nursing experiences in local hospitals and agencies. Students entering the associate degree program should possess college-level cognitive, communication and computational skills. Specific general education and science courses are included in the curriculum; selected courses are required before admission to these health care programs.

Miguel B. Fernandez Family School of Global Business, Trade and Transportation

The Miguel B. Fernandez Family School of Global Business, Trade and Transportation offers a full range of academic programs to prepare students for careers in business or to start a successful business of their own. Course offerings are available in a wide number of disciplines including accounting, business administration,

economics, entrepreneurship, management, marketing, international business, supply chain and logistics, and financial services. The School of Business has a long tradition of preparing students to meet the needs of the local workforce and partnering with industry to offer students cutting-edge instruction in various fields. The School has become known for excellence in providing customized training to meet industry needs. School of Business courses are offered at the North, Kendall, Wolfson, Homestead, Padrón and Hialeah campuses and West Campus, as well as through Virtual College. Academic options include:

- Bachelor of Applied Science (BAS) in Supervision and Management with emphasis on critical thinking and problem solving, skills in high demand among employers worldwide. The BAS in Supervision and Management provides knowledge in a range of organizational settings such as personnel management, organizational behavior, international and small business, finance, business ethics, and leadership. Graduates in this field will develop effective interpersonal skills, foster decision-making and entrepreneurial thinking, and become familiar with diverse business environments.
- Bachelor of Applied Science (BAS) in Supply Chain Management provides knowledge to the supply chain and explores the risks, logistics, economics, regulatory issues, resource allocation, production planning, inventory management and other functions basic to business. Due to the globalization of business, graduates in this field can find employment within the supply chain, logistics and transportation fields.
- Associate in Arts (AA) with a pathway to a degree in accounting, business administration or economics. The Associate in Arts degree is designed for students wishing to transfer to colleges or universities for upper-division coursework. The areas of concentration parallel university coursework and prepare students to enter their junior year at four-year institutions upon completion of the AA degree.
- Associate in Science (AS) in a broad range of business functions including accounting, entrepreneurship, management and marketing. The Associate in Science is designed to prepare students for immediate employment. Credits earned for many courses in these programs are acceptable to upper- division colleges or universities should the student decide to pursue a four-year degree.
- College Credit Certificates including accounting and financial services, entrepreneurship, international business, management and marketing. Focusing on a specific job or set of skills, these programs require fewer credits than an associate degree and are Florida Department of Education Certified College Credit programs. The credits granted will apply to the related AS degree.
- Eig-Watson aviation programs provide students with the education and skills required for a successful aviation career. Associate in Science degrees include Aviation Administration, Aviation Maintenance Management, Professional Pilot Technology, Transportation and Logistics. Related College Credit Certificates include Air Cargo Management, Airline/ Aviation Management, Airport Management, Intermodal Freight Transportation and International Freight Transportation; an Advance Technical Certificate in Certified Flight Instructor is also offered. Additionally, the School offers an aircraft dispatcher course and flight simulation training.
- Training techniques and simulation equipment to provide students with a hands-on approach to their education at Miami International Airport, Miami Executive Airport, and the Homestead Campus. The following flight training courses are offered through contracted flight providers:
  - ATF 2210 Commercial Pilot Flight (3 credits)
  - ATF 2305 Instrument Pilot Flight (3 credits)
  - ATF 2400 Multi-Engine Pilot Flight (1 credit)
  - ATF 2501 Flight Instructor Flight Training (3 credits)
- Miami Culinary Institute. At the Miami Culinary Institute, you will gain the real-world and hands-on knowledge to create a perfect blend of classic skills and innovative techniques used by some of the world's best chefs. Our two-year Associate in Science degree in Culinary Arts Management, has been formulated to prepare students of all ages for dynamic careers in culinary arts. Our core philosophy of Food Culture Innovation requires an examination and understanding of the culture built upon our interaction with food. As culinary professionals, we understand the role we play and the responsibility we must own in elevating our community's expectations about the food they eat. We help our students understand the value of tracing our foods to their source to evaluate how a particular farm, ranch or fishery impacts our environment, community and economy. We examine how food distribution not only contributes to a significant portion of the world's greenhouse gasses, but also how we can make choices that will improve that process. We analyze how food is prepared to ensure that the best nutrition possible is delivered on each plate. Miami Culinary Institute is training the next great culinary professionals and arming them with the tools to innovate the way we interact with food.

  Associate in Science in:

  Culinary Arts Management

College Credit Certificate in:
Culinary Arts Management Operations
Chef's Apprentice

- Miami Hospitality Center. MDC's four-year and two-year academic programs offer a range of degree pathways that prepare you to enter the modern workforce or pursue higher educational goals.
  Bachelor of Applied Science in:
  Supervision and Management-Hospitality Concentration,
  Associate in Arts pathway in:
  Hospitality & Tourism Management
  Associate in Science in:
  Hospitality Administration/Travel & Tourism
  College Credit Certificates in:
  Cruise Line Operations
  Food & Beverage Management
  Food & Beverage Operations
  Food & Beverage Specialist
  Rooms Division Management
  Rooms Division Operations
  Rooms Division Specialist

School of Continuing Education and Professional Development

The School of Continuing Education and Professional Development's (SCEPD) mission is to create high-quality workforce training, adult education programs, and personal enrichment courses that are accessible to the community. The School provides innovative educational experiences that are responsive to the needs and interests of industry and life-long learners of all ages. Through the Continuing Education departments located on each cam¬pus, the school offers noncredit courses in recreational, continuing workforce education and adult education categories. Recreational courses cover a huge range of topics from aerobics to Zen, and they serve individu¬als wanting to enrich their cultural experiences, pursue interests or learn alongside others with similar interests.

Continuing workforce education courses are just-in-time courses intended to help students improve their professional or occupational skills. The topics covered include computer workshops, certification courses, pre¬paring oral presentations, building contractor license exam preparation, as well as several hundred work-relat¬ed topics. Adult education courses prepare the student to pass the GED test or master the basic skills needed for success in one of the College's accredited programs.

The School of Continuing Education & Professional Development endeavors to provide classes both on and off campus. The majority of classes are conducted in the evenings and on weekends at times that are most convenient to the students enrolling. In its effort to meet the diverse needs of a large, multifaceted community, the school also welcomes suggestions and requests for courses that are not being offered.

School of Education

Teaching is a vital and dynamic profession. A career in teaching offers the opportunity to influence children and shape the future. Trends in population growth, an aging teacher workforce and the demand for class size reduc¬tion will result in ample professional opportunities for prospective teachers. The School of Education provides training and professional development opportunities for pre-service teachers as well as practicing professionals.

The School offers a wide variety of programs in Early Childhood Education, K-12 Teacher Education prepara¬tion, alternative pathways to certification and teacher recertification.

- Early Childhood Education:
  Students may earn College Credit Certificates (CCC) with an Infant/Toddler Specialization or Preschool Specialization that may lead to the National Child Development Associate credential and/or the Florida Child Care Professional Certificate (FCCPC). Students may earn a College Credit Certificate with an Administrator Specialization that may lead to the Director's Credential Level 1 or 2. Students may also earn a CCC in Inclusion or a CCC in Intervention Studies. All CCC lead directly to the AS degree program.

  Students may earn an Associate in Science (AS) degree in early childhood education which will prepare students for immediate employment as early child¬hood practitioners or professionals in both the public school system or private school sector. All AS degrees as accredited by the National Association for the Education of Young Children. The AS degree leads seamlessly to the Bachelor of Science in Early Childhood Education from birth to grade three with endorsements in English for Speakers of Other Languages (ESOL), Prekindergarten Disabilities, and Reading.
- K-12 Teacher Education Programs:
  Students may earn an Associate in Arts with the requisite courses needed for a baccalaureate degree in teaching. Students may complete a Bachelor of Science degree in ESE, secondary math or secondary biology, chemistry, earth/space science, or physics. The School's courses meet state certification requirements as a state-approved teacher preparation program. Students who complete the A.A. with requisite courses needed for a baccalaure¬ate degree in teaching may transfer to state university colleges of education or private institution with junior-level standing.

  K-12 Teacher Education programs are in the areas

of: Exceptional Student Education (K-12), Mathematics Education (Grades 6-12), Biology Education (Grades 6-12), Chemistry Education (Grades 6-12), Earth/Space Science Education (Grades 6-12) and Physics Education (Grades 6-12).

The baccalaureate programs in education are designed to prepare future teachers to enter the teaching profes¬sion immediately after graduation. Upon program completion students meet all Florida Department of Education requirements including the successful com¬pletion of the certification exams, an e-Portfolio of arti¬facts that demonstrate Florida Educator Accomplished Practices, clinical experience in a variety of settings and grade levels, and a semester-long internship. Professional development workshops also are provided.

- Center for Professional Development:
  The CPD is the post-baccalaureate branch of the School of Education. Students may complete the substitute teacher training or a variety of teacher certi¬fication and recertification courses as well as endorse¬ments in Autism Spectrum Disorders, ESOL, Gifted, Prekindergarten Disabilities, and Reading. Career chang¬ers who hold a bachelor's degree can become a state-certified teacher holding a Professional Certificate from Florida Department of Education in one year through the Educator Preparation Institute.

School of Engineering, Technology, and Design

The School of Engineering, Technology, and Design provides the dynamic knowledge, skill, hands-on training and indus¬try connection to turn your dreams and imagination into achievable steps to realize the success you desire. Our vision is to provide students with unmatched opportuni¬ties and access to an outstanding curriculum taught by world-class faculty within the information technology and engineering fields. Our programs are strategically formulated to exceed the critical demands of the high-technology marketplace, providing students with a wide variety of options for success in the 21st century.

The School of Engineering, Technology, and Design is a Cisco Regional Networking Academy offering CCNA classes that lead to valuable industry certifications. These courses are available at most campuses. The School also provides instruction using official curriculum from companies like Microsoft, AWS and Oracle. With input from industry partners, including NextEra Energy, Baptist Hospital, Amazon, Visa, IBM, SAS, Dell, Oracle and Microsoft, our courses deliver the knowledge and skills that the nation's top employers are looking for.

The Engineering Department offers pathways to Associate in Arts programs in ten different fields. It also offers three unique Associate in Science pro¬grams in Computer Engineering Technology, Electronics Engineering Technology and Industrial Engineering Technology that provide the skills for high paying jobs. Students looking for short term programs with recognized credentials have access to College Credit Certificates in Mechatronics, Microcomputer Repairer/Installer, Rapid Prototyping Specialist, Engineering Technology Support Specialist and Computer Specialist.

The Technology department offers Associate in Arts degrees in Computer Science and Computer Information Systems, and Associate in Science degrees in emerging technologies. These include: Animation and Game Art, Business Intelligence, Computer Information Technology, Computer Programming and Analysis for Business, Mobile Apps and IoT, Cybersecurity, Database Technology, Game Development and Design, and Network Services Technology with tracks in Cloud Computing and Network Security.

At MDC's School of Engineering, Technology, and Design, you can earn a bachelor's degree in fields that are in high demand. Upon completion of an Associate in Arts degree or an Associate in Science, students can transition to the following baccalaureates:

Bachelor of Science in Data Analytics: This was the first undergraduate program in the state of Florida in data analytics. It prepares students for the booming field of big data across all industries. Students learn how to find patterns, apply statistics, and create data visualizations—all necessary skills to acquire positions as Data Analysts, Database Architects and Business Intelligence Analysts.

Bachelor of Science in Electrical and Computer Engineering Technology: This program opens plenty of doors to a variety of technology-related fields. Graduates are trained as engineering practitioners, ready to take on roles as Electronics Engineers, Manufacturing Engineers and Project Engineers.

Bachelor of Science in Information Systems Technology: The field of information systems contin¬ues to grow, offering graduates a wide range of lucra¬tive and rewarding career opportunities. The program offers students the skills and knowledge to direct and control computerized information resources within an organization. Three concentrations are available for stu¬dents to choose from: Cybersecurity, Networking and Applications Development.

Additional disciplines under the School of Engineering, Technology, and Design include:

- Architecture and Interior Design. Offering programs in:
  Associate in Arts degree with pathways in:
  Architecture
  Building Construction
  Interior Design
  Landscape Architecture
  Associate in Science degrees in:
  Architectural Design and Construction Technology

Building Construction Technology
Interior Design Technology
College Credit Certificate in:
Computer Aided Design Assistant
Computer Aided Design Operator

- Entertainment & Design Technology. Offering design and media production programs in:
Bachelor of Applied Science in:
Film, Television & Digital Production
Associate in Arts degree with pathways in:
Computer Art Animation
Associate in Science degrees in:
Film Production Technology
Radio & Television Broadcasting
Music Business
Graphic Design Technology
Graphic Internet Technology
Photographic Technology
College Credit Certificate in:
Film Production Fundamentals
Television Studio Production
Graphic Design Support
Audio Technology

School of Health Sciences

The Medical Campus is committed to assisting qualified students interested in pursuing careers in the health science professions. Health Science professionals provide more than 60 percent of all health care administered in the United States. The School of Health Sciences offers more than 30 challenging vocational, certificate and degree programs, such as respiratory care, opticianry, clinical laboratory sciences and health information management. Programs in the School of Health Sciences prepare students for employment in a wide variety of settings including hospitals, clinics, research centers, long term care facilities, physician's offices, and wellness centers. In collaboration with more than 300 health care facilities throughout Miami-Dade County, students receive the necessary theory, laboratory experience and clinical practice. Students use state-of-the-art equipment and are supervised by licensed professional faculty. Health Science programs are fully accredited through their respective state and national associations. Most programs have limited access. Program completion affords the graduate the opportunity to seek employment in high-demand professions while receiving a competitive salary. Interested students are encouraged to contact the Medical Campus at 305-237-4141 to receive current information regarding program requirements, application procedures and selection process for the specific Health Science program of interest.

School of Justice, Public Safety, and Law Studies

The School of Justice, Public Safety and Law Studies, located on the North Campus, is a cooperative project between federal, state, county and local government agencies and Miami Dade College. The mission of the Miami Dade College-School of Justice, Public Safety and Law Studies is to offer valuable academic programs to degree seeking students and provide high quality workforce education to public safety professionals.

The School of Justice academic programs consist of an:

- CCC Crime Scene Technician
- CCC Homelad Security
- CCC Intelligence Studies
- A.A. pathway to Criminal Justice Administration
- A.S. in Criminal Justice Technology
- A.S. in Forensic Science
- A.S. in Crime Scene Technology
- A.S. in Computer Crime Investigations
- BAS with a major in Public Safety Management

The A.A. pathway in Criminal Justice Administration is transferable. It prepares students for upper division studies, such as transfer into the Bachelor of Applied Science Program. Students wishing to attend law school find this degree an important first step toward achieving their goal.

The BAS is a workforce education degree that combines rigorous academic training with hands-on, practical experience. It is a 120 credit hour program incorporating lower and upper division coursework, including the required 45 credit hours of electives and general education requirements, 30 credit hours of lower division requirements, 30 credit hours of upper division requirements, and 15 credit hours in one of two tracks.

The School of Justice workforce education programs are designed to develop and/or improve the knowledge, skills and abilities of public safety officers and individuals who aspire to hold positions in public safety including law enforcement officer, corrections officer and the private sector.

Basic Recruit Training: The School of Justice offers Basic Recruit Training Programs (BRTP) in the areas of law enforcement and corrections. Students who successfully complete one of the BRTP in Law Enforcement or Corrections, and who pass the State Officer Certification Exam, are eligible to receive academic credits toward an degree in criminal justice.

Private Sector Training: Private sector training is provided to those who seek to apply to be a Security Officer, Armed Security Guard and/or Private Investigator Intern.

School of Science

Offering a variety of degrees and certificate programs, Miami Dade College's School of Science builds a strong foundation in the study of natural sciences. Whether starting a journey to an advanced degree or building skills for today's workforce, the School of Science offers a modern approach to learning that opens doors to

dis¬covery and success.

A Top Choice - Students choose the school's pro¬grams because of the quality curriculum, undergraduate research experiences, individual attention, small class sizes, internship opportunities and highly qualified and motivated instructors.

Engaging Industry - The School of Science collabo¬rates with industry principally through student intern¬ships, a required component of the Bachelor of Science in Biological Sciences. An example is internship in a local biotechnology company. Students typically spend a semester working with an industry partner.

Research Focused - Students at the School of Science are afforded the rich experience of authentic undergradu¬ate scientific research, culminating in presentations at a number of regional, national and international conferences. The year-round STEM Research Institute (SRI) offers students a semester long Spring Program and a 10-week Summer Program. Students apply and if accepted receive compensation for their work. Most research opportunities are within MDC, but there are a handful of options conducted at collaborating institutions in South Florida and beyond, including the University of Florida, Florida Atlantic University, Nova Southeastern University, St. Thomas University and the University of Miami.

Talented Teachers - Full-time faculty members at the School of Science are talented facilitators of knowledge and are highly qualified in various science fields. Faculty selection is a very competitive process as many excep¬tional instructors want to work here. The school's faculty is inventive in reaching students and leveraging tech¬nology and new teaching methods, resulting in higher success rates in rigorous STEM courses. Furthermore, the school's professors are frequent recipients of the Endowed Teaching Chair award for excellence at MDC. Many get invited to present the results of their research endeavors at scientific conferences.

- School of Science Programs:
  - Bachelor of Science in Biological Sciences Degrees (BS)
    - BSBS – Biopharmaceutical Science Concentration
    - BSBS – Biotechnology Concentration
    - BSBS – Science Education Concentration
  - Associate in Arts Pathways (AA)
    - Atmospheric Science & Meteorology
    - Biology
    - Chemistry
    - Environmental Science
    - Geology
    - Physics
  - Associate in Science Degrees (AS)
    - Biotechnology
    - Biotechnology – Bioinformatics
    - Biotechnology – Chemical Technology
    - Funeral Services
    - Landscape & Horticulture Technology
  - Advanced Technical Certificates (ATC)
    - Biotechnology
    - Biotechnology – Bioinformatics
    - Biotechnology – Chemical Technology
  - College Credit Certificates (CCC)
    - Biotechnology
    - Florida Funeral Director
    - Horticulture Professional
    - Horticulture Specialist

SPECIAL ACADEMIC AND OTHER PROGRAMS

In meeting its commitment to serve the community, Miami Dade College offers a variety of programs, both on and off campus, to meet the specific educational needs of the groups involved. These may take the form of specially structured programs on campus, courses, seminars or workshops offered at times and locations that best serve public interests and needs.

For example, MDC offers:

1. Assistance to companies and governmental agencies in conjunction with their own training programs;
2. Workshops, seminars and institutes in cooperation with business, professional or other groups;
3. Recreation, personal improvement and cultural activities;
4. Postsecondary occupational career offerings to serve business, industry, the professions and governmental agencies.

MDC Apprenticeship Program

MDC is the first academic institution in Florida to receive the designation of Program Sponsor by the Florida Department of Education (FLDOE). MDC was also deemed Apprenticeship Ambassador by the U.S. Department of Labor. As a Program Sponsor, MDC is authorized to register occupations, employers, and apprentices to participate in a Registered Apprenticeship Program. Apprenticeships are an Earn-as-You-Learn model as students are employed, earning a wage, while attending school.

Registered Apprenticeship Programs (RAP) assist employers to develop and apply industry standards to training programs for registered apprentices. These programs can increase productivity and improve the quality of the workforce. Apprentices who complete a RAP are accepted by the industry as journeyworkers. By providing on-the-job training OJT), related technical instruction

(RTI), and guaranteed wage increases, employers who train apprentices retain more highly qualified employees and improve productivity. Certifications earned through registered apprenticeship programs are recognized nationwide.

Benefits of a Registered Apprenticeship Program:

- Free Tuition
- Classroom Training: Apprentices receive Related Technical Instruction that complements on-the-job learning.
- On-the-Job Training: Apprentices participate in hands-on training from an experienced mentor at the job site for at minimum one year.
- Mentorship: Employer must provide apprentices with an experienced mentor throughout the apprenticeship program that involves ongoing, focused supervision and training to ensure apprentices have guidance on the progress of their training and their employability.
- Paid Wages: Apprentices begin receiving wages day one of the training program and is provided pay increase(s) as they gain skills.
- Certification: National Credential from the Florida Department of Education recognized by the United States Department of Labor, upon completion of the Program.

Miami Dade College currently has 21 Registered Apprenticeship and Preapprenticeship Programs, in areas of Automotive, Aviation, Business, Construction, Education, Health Sciences, Hospitality, Information Technology, and Logistics and Transportation. MDC plans to expand its apprenticeships to include Advanced Manufacturing, Creative Design and Energy.

MDC WORKS: Career Studio

MDC WORKS Career Studio is a professional development resource that prepares MDC students for the workforce by giving them the skills, information and contacts to successfully launch their careers and create meaningful futures.

Launched in 2018 in collaboration with the U.S. Department of Labor and the Florida Department of Education, MDC WORKS Career Studio was the first program of its kind to integrate interactive, virtual and augmented reality into its career exploration process at an academic institution in Florida. MDC WORKS is free and automatically available to all MDC students. Students activate their personal Career Portal by signing in with their MDC email address and password. Once the portal is activated, students must confirm their registration via e-mail and then they will have access to apply to the thousands of job and internship postings and networking resources.

The MDC WORKS Career Studio provides the following services to students and alumni up to one year after their last class at MDC:

- Career Coaching
- Career Readiness Workshops & Resources
- Résumé Assistance
- Interview Preparation & Practice
- Networking Events
- Job & Internship Postings
- On-Campus & Virtual Employer Information Sessions
- Interviews with Employers
- Career Fairs and Hiring Events
- Online Career Portal to stay organized

MDC WORKS Career Studio serves all 8 Miami Dade College Campuses and assists all students who are seeking career readiness, internship and job placement assistance who are registered in associate and bachelor degree programs, as well as, GED, ESL and ESOL class's in-person, virtually, and over the phone at 305-237-9675 (WORK), mdcworks@mdc.edu, www.mdcworks.org.

In addition, MDC WORKS Career Studio offers a plethora of career readiness resources, support and downloadable resume templates on their website at www.mdcworks.org.

Center for Economic Education

(Padrón Campus)

The mission of the Center for Economic Education is to work closely with the educational communities in Miami-Dade and Monroe counties to develop greater awareness for economic literacy. Among the most popular of the Center's programs are the four recertification credit courses offered to area teachers in grades K-12. Of these, the national Stock Market Game is played in grades 5-12 in each of the major semesters. The Free Enterprise Bank Program, available to grades K-12, provides real money for class business activities. The Center works with area educational administrators to create and assist in the development of curriculum materials. These materials have included a tourism and development program, a Civics Teachers Resource Guide, Elementary Program of the Economics of the Stanford Achievement Test and many more program examples at each of the major grade levels.

It is the Center's goal to provide the latest and best materials and programs in economic education to our schools. Through these opportunities the Center seeks to promote greater understanding on the part of our young people about the economy in which they live and the economic climate in which they will work.

Cybersecurity Center of the Americas

(Wolfson Campus)

The Cybersecurity Center of the Americas is an all-in-one resource for those interested in building a career in cybersecurity, offering the most advanced education and hands-on experience in cybersecurity defense systems.

The unique, customizable technology in place at the Center caters to all skill levels, allowing for a flexible learning environment for trainees of all backgrounds. The holistic training center provides programs for trainees of all skill levels, from beginners looking to enter the world of cybersecurity, to security experts looking to improve their skills and advance their careers. Dedicated to education and serving the community, the Cybersecurity Center of the Americas also hosts forums, speakers, and events.

Cloud Computing Center
(Padrón Campus)

The Cloud Computing Center serves as a Cloud Computing hub where technology leaders, industry experts and students can engage and collaborate. The Center houses the College Credit Certificate and Associate of Science degrees in Enterprise Cloud Computing, and exposes students and existing IT professionals to industry leading cloud platforms and industry certifications needed to fill increasing demand of IT cloud jobs in the workplace. The Center also hosts Cloud Computing accelerated training programs, summer camps, forums, speakers and events as Miami Dade College continues to serve the community.

Center for Financial Training
(Wolfson Campus)

The Center for Financial Training Southeastern (CFTSE) is a local training provider of the American Bankers Association (ABA). As the largest industry-sponsored adult education program in the world for financial services professionals, CFTSE benefits more than 3,500 financial services professionals locally and is one of 20 centers located throughout the United States.

CFTSE is a unique source for commercial banking and financial industry training and education. CFTSE is a nonprofit educational organization that conducts college credit courses (live classes, guided self-study and online), seminars, webinars, computer workshops and customized and contract training.

Students can earn CFTSE and/or American Bankers Association (ABA) diplomas and certificates that are recognized throughout the industry and accepted as college credit. Students can also earn Banking College Credit Certificates. CFTSE has established an academic partnership with Miami Dade College, enabling CFTSE students to achieve degree status while completing their financial services studies. CFTSE courses are offered at all MDC campuses, and at certain financial institutions. All courses are open to the public however, special fees are charged by CFTSE for certification and materials. The fee structure varies depending on whether the student is a member or nonmemberof CFTSE. The fee is charged in addition to MDC tuition and is paid to CFTSE.CFTSE also offers special programs in partnership with MDC, to include financial literacy workshops and the Future Bankers' Camp.The Future Bankers' Camp is a partnership between CFTSE, MDC - School of Business and Miami Dade County Public Schools - Academy of Finance.

Continuing Education

The School of Continuing Education and Professional Development is committed to the philosophy that learning is a life-long process and that the many years spent in formal education do not complete our learning experience. This philosophy serves as the foundation of our learning experience and values the knowledge we acquire daily and use for the rest of our lives.

Campuses offer recreation and leisure courses and activities for those who wish to enrich their cultural lives or improve their personal efficiency and professional skills. No record of previous education is necessary and little or no homework is required. No grades are given through Continuing Education, no academic credit gained and attendance standards are voluntary.

Continuing Workforce Education training courses are offered to improve employment-related skills for postlicensing and for professional licensing. Training is listed on a student's transcript. The transcript can be used in lieu of continuing education units (CEU) to show evidence of participation in professional development to employers, and licensing or certification agencies (see below). For additional information, contact the campus Continuing Education department.

The Adult Education program offers students the opportunity to learn basic skills to earn a GED or to pursue further training through the College's vocational programs.

The College offers courses both on and off campus to meet the needs of the community, and makes every effort to begin a course when an adequate number of people request it.

Continuing Education Units (CEU)

Miami Dade provides students with the opportunity to obtain continuing education units (CEUs) for certain noncredit courses. The CEU program encourages long-range education goals and lifelong learning, and permits adult students to aggregate a number of continuing education courses to meet their personal needs.

The CEU is used as the basic means for recognizing an individual's participation in, and for recording an institution's offering of continuing workforce education courses. A CEU is defined as 10 contact hours of participation in an organized, continuing education experience under responsible sponsorship, capable direction and qualified instruction. Transcripts indicating completion of

continuing workforce education courses designated for CEUs will be provided.

Contract Training for Business and Industry

Through the School of Continuing Education and Professional Development, business, industry and government can benefit from workshops and courses offered at the job site or at any of our campuses. These contract training programs are designed to meet the educational and training needs of community businesses and organizations by reaching beyond traditional academic curriculum and offering courses and workshops that focus on practical application. Offered in credit and noncredit formats, these programs are available at times and locations convenient to the participants.

Program topics include computers, management, customer service, communications, foreign languages and English as a Second Language, business English, writing and math and many others. All programs may be customized to the specific needs of the client, with job-related materials included in the curriculum.

Cooperative Education

Cooperative Education provides an opportunity for students to obtain career-related work experience and academic credit for such work. It enables students to apply classroom theory to actual work situations. In many instances, it helps students earn needed cash to meet education costs. It gives students work experience that employers look for and it may turn into permanent employment.

Job opportunities are available in many career fields. Transfer students may continue their Cooperative Education program at many four-year colleges and universities. While enrolled at MDC, this work experience may be part time or full time, paid or voluntary, and may continue for one or two terms. The program is flexible and tailored to meet student and employer needs. The volunteer plan provides for one term of six hours or more per week for 12 weeks minimum, and for 10 hours or more per week for 12 weeks during a second term.

Through Cooperative Education, students may earn three elective credits per term for two terms. Application for the program should be made to the Cooperative Education liaison at each campus discipline. A minimum GPA of 2.0 is required.

Earth Ethics Institute

(Collegewide; Located on Wolfson Campus)

Earth Ethics Institute (EEI) is an Earth Literacy and sustainability academic initiative at Miami Dade College (MDC) offering workshops, conferences, courses, and support for MDC administrators, faculty, staff and students as well as the greater South Florida community.

The mission of the Earth Ethics Institute is to foster Earth Literacy in the course objectives of each discipline and all campus operations at Miami Dade College, as well as in the South Florida Community and the extended Earth community beyond. Earth Literacy includes an understanding of cosmology and ecological principles as the basis for sustainable living. The cosmological context is the story of the universe, as contemporary science describes the developmental process out of which Earth and all life emerge.

The Global Sustainability and Earth Literacy Studies (GSELS) Learning Network is EEI's most recent initiative. GSELS provides inclusive educational opportunities for the Miami Dade College community to explore global citizenship, ecological sustainability, and civic engagement, through understanding planetary challenges and limits and by developing values, skills, and behaviors that promote prosperity and communities of well-being. In addition, the GSELS project is replicable, requires very little funding, and hopes to serve as a national model of best practices.

GSELS acknowledges the interconnections and interdependence of the personal, social, economic, cultural, environmental, and political aspects of our world. Collaboratively, students, faculty, administrators, and staff explore the significance of human activity within an evolving Universe and Earth. Through shared leadership, this nurturing learning community facilitates the emergence of awareness, knowledge, skills and solutions necessary to create sustainable systems that support a healthy and just economy, society, culture and environment, while fostering values of Earth ethics, social justice, cultural diversity, and civic engagement.

GSELS draws on several international documents, including the four pillars of life-long learning detailed by UNESCO, The Earth Charter, and Thomas Berry's "12 Principles of Understanding the Universe and the Role of the Human in the Universe Process." Additionally, GSELS is grounded in the principles of ecology, and environmental, sustainability and global education concepts. GSELS course criteria provide the basics to acquire the knowledge and skills needed to cope and constructively engage with the 21st century, including these eight guiding principles of global citizenship (from a consensus of experts in nine countries, East and West, as cited in Sustainable Education by Stephen Sterling):

1. looking at problems in a global context
2. working cooperatively and responsibly
3. accepting cultural differences
4. thinking in a critical and systemic way
5. solving conflicts non-violently
6. changing lifestyles to protect the environment
7. defending human rights
8. participating in the political process

EEI Programs for Faculty and Staff
GLOBAL SUSTAINABILITY AND EARTH LITERACY STUDIES

Earth Ethics Institute grew out of two earlier Miami Dade College programs, Life Lab and the Environmental Demonstration Center. It now offers a series of professional development workshops and programs for Miami Dade College administrators, faculty and staff interested in infusing ecological concepts and a cosmological context into their professions. Through Earth Literacy, one deepens his or her understanding of the interdependent human-Earth relationship and thus broadens the sense of responsibility inherent in the practice of every profession and vocation. Hundreds of MDC faculty and staff have participated in EEI workshops, featuring topics such as incorporating sustainability in existing and new curriculum, biophilia, culture and cosmology, ethics, technology and sustainability, and regenerative, interactive and sustainable design. MDC administrators, faculty and staff are also invited to participate in immersion field trips to explore the unique ecology and hydrology of South Florida. The Institute also collaborates with Genesis Farm in New Jersey, Narrow Ridge Earth Literacy Center in Tennessee,St. Thomas University and Florida International University in Miami in offering courses in Earth Literacy.

Earth Ethic Institute certifies faculty who wish to participate in the GSELS Learning Network. Miami Dade College faculty, who currently hold a Master's Degree and have taken an EEI professional development workshop or course are encouraged to participate and begin exploring GSELS in their courses. Faculty who currently hold a Master's Degree can become GSELS-certified faculty in one of four ways:

1. 36 EEI CTD Professional Development hours
2. 3 Graduate Credits (one course) in Earth Literacy or Sustainability Leadership/Sustainable Education Studies

Environmental Center
(Kendall Campus)

The Environmental Center provides noncredit courses to children and adult community members and to our work force. Enrollment is open to everyone, and there are no prior education levels, transcripts or tests required. Most classes meet weekends or evenings and are scheduled on and off campus for convenient access. The Center has many programs:

1. Landscape/gardening/home improvement courses encourage the public to utilize environmentally appropriate landscape materials and to maintain their home and landscape in ways that minimize environmental impact. Short-term training certification preparation and opportunities to participate in segments of credit courses improve the skill of landscape professionals.
2. Hands-on, interactive environmental education field trip programs are available for school groups, Kindergarten - grade 9.
3. Nature-based teacher-planning day/holiday camps serve the needs of working parents while sensitizing children in pre-kindergarten through seventh grade to the natural world. Children participate in nature games, crafts, outdoor activities and cooperative games.
4. Scout Days provide Boy and Girl Scout groups opportunities to participate in nature-based activities designed to meet badge requirements as well as to implement Eagle Scout and Gold Award projects.

Field trips, day camps and scout days are held at our Environmental Center, which includes a pine rockland, a lake, a floating dock, chickee huts, butterfly gardens, a butterfly house, organic vegetable sand gardens, a composting demonstration exhibit and an Everglades waterflow demonstration exhibit.

The Center also offers courses on the use of natural/alternative healing methods, skills for life change and courses in nontraditional spirituality. Initiatives include Native American cultural programs, expanded pine rockland research, development of community service project opportunities for high school students, weekend recreational and educational programs for adults and families.

The Center @ MDC
(Wolfson Campus)

The Center @ MDC is a cultural and academic initiative that promotes reading, writing and theater throughout the year by consistently presenting high-quality literary activities open to all in South Florida.

Housed at the Wolfson Campus, The Center serves MDC and K-12 students, as well as the larger South Florida community. Center programs include many reading and writing initiatives, in addition to the prominent Teatro Prometeo, a community theater, and Miami Book Fair the largest literary gathering in the U.S.

Center initiatives:

- Visiting Writers participate in readings, teach workshops and conduct residencies that help students and others to deepen their understanding of literature and sharpen their creative writing abilities.
- The Center's reading campaigns for children, students and adults include The Big Read (a national program funded by the National Endowment for the Arts), One Picture Book, One Community and Story Time! All encourage an appreciation for books, while enhancing the reading and comprehension skills of people of all ages. Within the College, Current

Voices in Literature provides thousands of free books every year, along with supporting materials, to students in various disciplines.

- Noncredit Creative Writing Courses are offered throughout the year, giving aspiring writers the opportunity to receive critique and encouragement from published authors with extensive teaching experience. The twice-yearly Miami Writers Institute is a conference that features workshops with bestselling and award-winning authors and publishing professionals.
- The Miami Writers Institute is a twice-yearly conference for writers featuring three and four days of intensive workshops with bestselling and award-winning authors and publishing professionals.
- The Center's Miami: City of Refuge program provides a safe haven for writers persecuted or threatened with imprisonment or death in their home countries.
- The 28-year-old Miami Book Fair International is the largest and finest literary gathering in the U.S. Over eight days in November, more than 400 authors from all over the world present books, and dozens of events and activities celebrate literature and encourage literacy. The Book Fair features a country each year, organizing symposia and festivities that promote cultural understanding.
- Teatro Prometeo is a community theater with the mission of preserving the Spanish language and Hispanic culture. It offers a conservatory-style program that features a rigorous, well-rounded curriculum of study. Prometeo presents full productions and dramatic readings throughout the year. Courses and workshops are offered year-round.

Creative Writing Workshops

Creative writing workshops offer writers in our community a chance to share their work with a supportive, yet critical community of writers whose goal is continual development. All workshops are noncredit and open to everyone in the community.

Twice a year, the Center's Writers Institute offers four days of intensive workshops on poetry, fiction, nonfiction, publishing and more. These are complemented by readings and festive gatherings.

Literacy Initiatives

The Center's literacy-based initiatives include One Book, One Community; One Picture Book, One Community; First Readers; El Club de Lectores; and The Big Read, a nationwide reading initiative funded by the National Endowment for the Arts in partnership with Arts Midwest and the Institute of Museum and Library Services. They encourage an appreciation for books with the goal of fostering dialogue in the community and enhancing the reading skills of children and adults.

Miami Book Fair

The acclaimed Miami Book Fair, the nation's finest and largest literary gathering for more than three decades, held in November to MDC's Wolfson Campus in downtown Miami.

Attended by more than 200,000 people over eight days, Miami Book Fair features more than 600 authors and poets from around the world with readings from new works in English, Spanish and Creole and panel discussions on many topics. Other highlights include author readings, storytelling, and interactive experiences for children and teens, as well as panels on comics and graphic novels.

Founded in 1984 by Miami Dade College and partners, Miami Book Fair engages the community through inclusive, accessible programs that promote reading and support writers year-round. The annual eight-day festival has grown into the largest and most comprehensive community-rooted literary gathering in the United States generating discourse on contemporary literature and current issues of international importance.

Funeral Service Education

(North Campus)

The Funeral Service Education program was the first public community college program in the southeastern United States to offer a degree in funeral service education. The school has embalming and restorative arts laboratories enabling students to do all training on campus.

An on-campus chapel gives students a unique opportunity to work in all aspects of funeral preparation, including embalming, dressing, cosmeticizing and casketing decedents for viewing and final services. The Funeral Services Education degree program at Miami Dade College is accredited by the American Board of Funeral Service Education Inc. (ABFSE), 992 Mantua Pike, Suite 108, Woodbury Heights, NJ 08097 (816) 233-3747. Web: http://www.abfse.org.

The Funeral Service Education Program requires a separate application to be admitted to the program. Miami Dade College requires that students register for the National Board Exam as administered by the International Conference of Funeral Service Examining Boards in order to graduate with the Associate in Sciences degree in their final semester. The program also offers a college credit certificate to obtain licensure as a funeral director only in the State of Florida. This academic program is designed to meet specific state or professional needs. It is not accredited by the American Board of Funeral Service Education. Students graduating from this program are not eligible to take the National Board Examination or any state board examination for which graduation from an ABFSE accredited program is required.

National Board Examination pass rates, graduation

rates, and employment rates for this and other ABFSE accredited programs are available at www.abfse.org. To request a printed copy of this program's rates, go to the Funeral Service Education Office (Building 3142) by e-mail at funeralservices@mdc.edu, or by telephone 305-237- 1244. The annual passage rate of first time takers on the National Board Exam (NBE) for the most recent three year period for this institution and all ABFSE accredited funeral service education programs is posted on the ABFSE website (www.abfse.org).

Funeral service graduates from MDC are qualified to practice in most states provided they have met the requirements for licensure in the given state of choice. The school provides continuing education required for license renewal of Florida funeral directors, embalmers and direct disposers, and conducts special seminars for the enrichment of funeral services personnel.

The Honors College

The Honors College is a collegewide community of student and faculty scholars who collaborate in an intellectually stimulating, enriching, challenging and supportive environment. Housed at Wolfson, North, Kendall, Homestead, and Padrón campuses, The Honors College provides an academically rich curriculum with special scholarship, and enrichment and service opportunities. The Honors College encourages critical and creative thinking and intellectual curiosity in an array of programs and disciplines. Students study in small class settings and work closely with Honors faculty. The Honors College expects its students to take advantage of the many enrichment opportunities provided. These include cultural and community activities, leadership development programs, internships, national tours, study abroad programs and colloquia. The Padrón Campus offers the Honors Dual Language Program, which mirrors the rigorous curriculum of the other campuses. This program offers courses in English or Spanish for students who demonstrate mastery of both languages.

Students receive personalized guidance in preparing applications for competitive scholarship awards and transfer admission to prestigious private and public universities. In addition, The Honors College offers exemplary models of learning, a notable speakers series, discipline-specific honors seminars and student forums. Components of the program include:

The Honors College Fellows award, a stackable scholarship covering in-state tuition, fees and expenses;

1. Opportunities to attend an array of cultural events;
2. Attendance and participation of students and faculty at the annual meetings of the National Collegiate Honors Council, as well as the Regional and Florida Collegiate Honors Council meetings;
3. Transfer admission and scholarship opportunities by upper-division colleges and universities upon graduation from The Honors College;
4. Membership in campus chapters of Phi Theta Kappa International Honor Society for students with a GPA of 3.5 or higher;
5. Opportunities to participate in international study experiences and internships abroad;
6. Recognition as a graduate of The Honors College at commencement and designation on transcript and diploma with 36 credits in honors courses and a 3.5 GPA or higher;
7. Internships and Service Learning opportunities provided in related fields of study.

Additionally, the Honors Dual Language program offers:

1. A global perspective in all classes
2. Proficiency in two languages
3. Opportunity for a global experience as an exchange student or intern.

All of the activities associated with The Honors College are designed to inspire and challenge students in their studies and to provide support and encouragement in their quest for knowledge, academic and personal fulfillment. Students should contact the Dean of The Honors College or the Honors Director on the corresponding campus for specific information. Students may also visit the website for additional information at www.mdc.edu/honorscollege.

MEED Program

The MEED Program (Model for Enhanced Employment Development) has served students with disabilities in Miami-Dade County with distinction for more than 25 years and has received a congratulatory Proclamation from the Office of the Mayor saluting its success. The Program has been redesigned as a national model in employability training, enhanced with the development of digital technology skills and achievement of excellence in professional skills.

The MEED Program's goal is to open doors to competitive employment opportunities. There are two distinct elements of the Program which include (1) employment assistance; e.g., effective résumé development, strategic job searching, defining accommodative needs in the workplace, etc., and (2) employment development; e.g., working with business and industry and agencies throughout the County to expand inclusive employment opportunities.

To learn more about the MEED Program, students are invited to visit the MEED webpage or call 305-237-3072.

New World School of the Arts

(Wolfson Campus)

New World School of the Arts is a comprehensive college program and full-time high school preparing students for professional careers in dance, music, theater and the visual arts. The program, created by the Florida

Legislature in 1984 as a Center of Excellence in the Arts, is an educational partnership of the University of Florida, Miami Dade College and Miami-Dade County Public Schools. Through its sponsoring institutions, New World School of the Arts awards the Bachelor of Music, Bachelor of Fine Arts degrees and Associate in Arts, as well as high school diplomas. Students are admitted on the basis of talent and commitment as demonstrated through audition or portfolio presentation. The school is located at Wolfson Campus in downtown Miami.

Outreach Program

The College endeavors to provide college credit and non-credit classes to residents of Miami-Dade County who find it more convenient to attend a neighborhood center than to travel to a campus. These courses are fully accredited and follow the same curriculum as on-campus courses. Classes are held in community schools, businesses, municipal agencies and other close-to-home locations. The smaller classes provide opportunities for increased interaction with instructors. Students who attend outreach classes also find a strong network of support from fellow classmates.

Reserve Officers Training Corps

Miami Dade College, in cooperation with the University of Miami and Florida International University, permits students to enroll in Air Force ROTC (through the University of Miami) and Army ROTC (through Florida International University). An application for admission to the ROTC program, including eligibility information for new and currently enrolled students, may be obtained from the ROTC offices at the University of Miami or Florida International University. MDC credit is awarded for successful completion of ROTC courses. For further information, see "Military Science" in the Course Description section.

MDC Online

MDC Online has provided award winning online credit courses to students since 1999. The online courses and programs offered by MDC Online are an excellent alternative to classroom-based instruction for the students of Miami Dade College. We take pride in a diverse community of engaged, mature students.

Our online courses use a learning management system (LMS) called Canvas and the internet to deliver instruction and to support class work. Our courses use the latest interactive technology, and provide forums for group study and support. While online courses do not require time on campus, the courses are equivalent to face-to-face courses, meeting the same competencies and learning outcomes. Students can take one course or pursue an entire two-year or four-year degree through MDC Online. MDC Online's course offerings and degree programs allow you to maintain your personal and career schedule while earning the same regionally accredited degree that a student at our MDC campuses are awarded.

At MDC Online, a staff of technical and functional professionals supports the development of new online courses, the teaching of existing online courses, the students in online courses, and the technology used in these courses.

Earn a Degree on Your Time, Online!

MDC Online courses and degree programs were created by making the MDC student's online learning experience our top priority – offering convenience, flexibility and support. These high-quality online courses and degree programs are designed to match workforce needs to ensure that our graduates acquire the knowledge, skills and credentials for a best-fit job.

Online Program Standards

MDC Online suscribes to the following best practice distance learning tenants as prescribed in the following publications:

- Distance and Correspondence Education Policy Statement (09/2020), Southern Association of Colleges and Schools Commission on Colleges (SACSCOC)
- Principles of Good Practice-The Foundation for Quality of Southern Regional Education Board's Electronic Campus
- Five Pillars of Quality Online Education, Online Learning Consortium
- The Quality Matters Higher Education Rubric, Sixth Edition
- MDC Online is an active member of the Florida Virtual Campus

For more information and assistance, please contact: MDC Online - Student Support Center @ 305-237-3800 or Email Us @ online@mdc.edu

Weekend College

Weekend College is designed for students unable to attend weekday or evening classes, but it is not restricted to these individuals; students wishing to complement their schedules with additional courses are encouraged to enroll. Weekend College offers a selection of core, distribution and elective credit courses to satisfy degree and certification program requirements.

Fitness, Aquatic and Wellness Center

(North, Kendall and Wolfson Campuses)

The College has several Wellness Centers, located on the North, Kendall and Wolfson campuses. These programs are designed to meet the wellness needs of faculty/staff, students and the community. The centers have the capability to perform various health/fitness assessments, including sub-maximal cardiovascular testing, blood

pressure measurement, body composition, muscular strength and flexibility. Each center a has a variety of cardiovascular and strength training equipment as well as an array of free-weights.

The MDC Fitness, Aquatic and Wellness Center offers:

- Convenience - Work out before or after work or class, or even on lunch breaks
- Flexibility - The Wellness Center is open Monday - Friday and has hours to suit all types of schedules
- Affordability - We offer unbeatable monthly, term, or yearly membership rates

Our Fitness & Wellness Centers also offer a wide array of group exercise classes. Whether you want to improve your cardiorespiratory endurance, increase your muscle mass, or lose those extra pounds, our fitness classes will help you accomplish your goals. In addition, the Kendall and North campus also have a fully equipped, state of the art Aquatic Facility that is available to all students and employees with an active Aquatic Membership.

For more information about each campus facility visit the appropriate link below:

Kendall Campus Fitness, Aquatic and Wellness Center - https://www.mdc.edu/kendallfitness/

North Campus Aquatic and Fitness Center - https://www.mdc.edu/northfitness/

Wolfson Campus Fitness and Wellness Center - https://www.mdc.edu/wolfsonfitness/

Study Abroad Programs

Miami Dade College is a member institution of the College Consortium for International Studies (CCIS). A cooperative consortium arrangement affords reciprocal access for MDC students to participate in study abroad programs offered by other member institutions and earn college credit. The CCIS is a nationwide partnership of more than 100 membership colleges and universities worldwide, including two- and four-year, public and private. This partnership offers American undergraduates a choice of more than 100 study-abroad programs in more than 20 countries. CCIS offers semester and summer programs. MDC students benefit from other institutional partnerships the college has with international organizations, such as CIEE, that sponsor events and scholarships for our students.

Miami Dade College also offers faculty-led short-term study abroad programs in numerous disciplines to various countries around the globe. Program offerings vary yearly. Traditionally, MDC faculty have led programs in the following disciplines:

- Anatomy & Physiology
- Anthropology
- Art & Humanities
- Culinary Sciences
- Environmental Sciences
- Graphic Design
- Literature
- Multicultural Communications & Relations
- Spanish Literature
- World Languages

Participation is not automatic. Students must apply through the MDC Office of International Education located at the Wolfson Campus. Virtual advising appointments are available. Most programs require a minimum 2.5 GPA. No previous study or knowledge of another language is required for most programs. If a student is eligible for financial aid, this aid may be used for study abroad. After acceptance to a program, the restricted registration for courses abroad is completed with the assistance and authorization of the Office of International Education. Some programs offer a "homestay" option (living with a local family or individual), which accelerates language acquisition and provides in-depth knowledge of the host culture. Course content is usually country-based and many courses are fully compatible with the MDC curriculum. Course descriptions and information on the classes offered in each pro-gram are detailed during the application process.For more information about the study abroad programs and scholarship opportunities, please visit www.mdc.edu/studyabroad.

Time-Saving Degree Opportunities

Miami Dade College encourages students to accelerate their education by providing time-saving programs to shorten the time necessary to complete an Associate degree. The articulated acceleration mechanism includes dual enrollment, early admission, advanced placement, credit-by-examination and the International Baccalaureate Program among others. These accelerated options can save a student valuable time and money because they provide an alternative way of earning credit at MDC and the opportunity to earn a degree more quickly.

Prior Learning Assessment (PLA)

Save money by earning credits for the things you already know. Through military or corporate training, previous learning, or even volunteer experiences, you may already have the knowledge you need to get ahead. Through PLA opportunities, you can prove that knowledge and fulfill the requirements of your degree program. In short, PLA is the evaluation and assessment of an individual's life learning for college credit, certification, or advanced standing toward further education or training. For additional information relating to PLA, contact the Office of Prior Learning at pla@mdc.edu or visit https://www.mdc.edu/pla/.

Competency Based Education Programs

MDC Accelerate competency-based education (CBE) programs are designed in an accelerated and flexible online format for working professionals. Each program

was designed with input from industry advisors. While enrolled in the program, students will have opportunities to network with business leaders.

How Does It Work? The first step is to submit an application for admission. After taking the CBE readiness assessment and meeting with a department chair or advisor, the next step is to register for a CBE program. Once in the program, students complete online performance assessments to demonstrate competency. By demonstrating competency, a student sets his or her own pace through the course. MDC Accelerate allows students to spend more time with the material they need and less time with the material they already know. To get started, apply to MDC and register for your CBE program of interest.

Foreign-Trained Professionals Program

Let your foreign professional experience work for you. With a longstanding commitment to serving multiple and diverse communities, Miami Dade College has initiated the Foreign-Trained Professionals Program (FTP). Designed to assist foreign nationals, as well as U.S. nationals with foreign credentials, FTP helps Foreign-Trained professionals obtain the necessary U.S. credentials to continue their careers. Courses and programs are offered on campuses and online.

Benefits of FTP include:

- Evaluation of foreign credentials
- College credit awarded for applicable foreign work experience
- Opportunity to earn an MDC certificate or degree
- Quick return to your career of choice

Dual Enrollment and Early Admission

(See Special Admissions Categories)

The Dual Enrollment program allows high school students (or home education students) to earn college credit and credit toward a high school diploma simultaneously. The college credit may be applied toward a postsecondary diploma, or a certificate or degree at a Florida public institution. The Dual Enrollment program is an opportunity to take challenging courses and accelerate education opportunities. Students who successfully complete dual enrollment courses will save time in obtaining their college degree, and save money as well, because these students are exempt from the payment of registration, tuition and laboratory fees.

To enroll in courses through the dual enrollment program, students must demonstrate readiness for college-level coursework. Eligibility criteria take both GPA and assessment of communication and computation skills into consideration. The high school must grant permission for the student to enroll in these courses, thereby agreeing to accept these college courses to meet high school graduation requirements.

Early admission is a form of dual enrollment through which eligible high school students enroll at the college on a full-time basis. The courses these students take are creditable toward a high school diploma and the certificate or associate degree. Students selected for early admission or dual enrollment may begin their studies in any term, provided that they complete the dual enrollment admission, advisement and registration procedures and receive permission from their high school.

Alternative Ways of Earning Credit Through Standardized Examination

- Advanced Placement (AP)
- American Council on the Teaching if Foreign Languages (ACTFL)
- Cambridge Advanced International Certificate of Education Examination (AICE)
- Caribbean Advanced Proficiency Examination (CAPE)
- Certified Professional Secretary Examination (CPS)
- College-Level Examination Program (CLEP)
- DANTES Subject Standardized Tests (DSSTs)
- Defense Language Proficiency Test (DLPT)
- International Baccalaureate (IB)
- UExcel

Miami Dade College awards college credit for standardized examinations that document the required knowledge and competencies for one or more subject areas. Evaluations of examinations are made after the student has been admitted to the College. Official score reports must be sent directly from the testing agencies to the College's Transcript Processing Services Office. Awarded credit based on the College's approved course equivalents will appear on the student's permanent record and on the student's official College transcript as earned credit only. There will be no indication of grades or quality points and duplicate credit is not awarded (State Rule 6A-10.024[8]). Miami Dade College uses the minimum scores, credits, and guidelines for awarding credit for exams established by the State of Florida's Articulation Coordinating Committee (ACC). For additional information please visit the Testing Criteria Credit-by-Exam website (https://www.mdc.edu/main/testing/criteria/credit-by-exam.aspx).

Institutional (Departmental) Credit-by-Examination

Students who have been admitted to the College may receive credit for courses through departmental examinations. Applications for this type of credit are available from the Office of Prior Learning Assessment and must be approved first by the appropriate academic department. Subsequently, the registration must be completed at the Registrar's Office and fees need to be paid by each term's published deadline. Credits for departmental examination are not included in any computation of credit load for full-time or part-time student status. Institutional credit-by-examination will become a part of the student's permanent record at the conclusion of the

term in which it is awarded. Grades of A, B, C or D will be assigned for college credits earned by examination and will be computed in the student's GPA. A nonrefundable fee of $30 per credit will be charged for each examination administered.

Credit for Specialized Training
College credit for specialized non-collegiate occupational training may be granted to students enrolled in occupational programs. This credit is granted upon validation of the non-collegiate instruction by the appropriate academic department. A processing fee of $15 per course, up to a maximum of $50 for any single application, will be charged for the evaluation of non-collegiate instruction. Agreements to recognize specialized non-collegiate occupational training must have been previously approved in accordance with College curriculum procedures.

Certified Professional Secretary (CPS)
Students passing the complete national examination of the Certified Professional Secretary Examination (CPS) and the CPS Exam Prep courses may be granted credit toward an Office Administration Associate in Science degree at Miami Dade after official score reports are received from the International Association of Administrative Professionals (IAAP). The credit will appear on the student's permanent record as earned credit only, without any indication of grades.

Industry Certifications
Miami Dade College may award college credit to eligible students who have earned a recognized appropriate industry certification which will be applied toward the specific academic degree.

Evaluations of industry certification(s) are made after the student has been admitted to the College and provides a valid industry certification based on the State Board of Education, which has an inventory of approved a statewide industry certifications. For a complete list of the approved statewide Career and Technical Education articulation agreements visit https://www.mdc.edu/industrycertifications/.

Military Service Schools, Defense Activity for Non-Traditional Education Support (DANTES) and United States Armed Forces Institute (USAFI)
Miami Dade College will grant credit toward an Associate degree for properly validated military service training. This includes military service schools, the United States Armed Forces Institute (USAFI) and Defense Activity for Non-Traditional Education Support (DANTES) end-of-course examinations, as well as acceptable College Level Examination Program (CLEP) test scores. The recommendation of the American Council on Education, a guide to the evaluation of education experiences in the armed services, is used in evaluating military service school training. Active-duty military personnel must submit DD Form 295 and the Miami Dade military service school training record form. USAFI and DANTES college-level credit courses taken by correspondence, or by extension through other accredited colleges, are accepted under regular transfer credit provisions. Official Reports of Educational Achievement must be mailed directly to the College Admissions Department from each approved organization.

College credit earned through military service schools, USAFI, or DANTES college level end of course tests, will appear on the student's permanent record as earned credit only, without any indication of quality points. Transfer credit evaluations of this work are made after the student has been admitted to the College. Veterans must submit a true copy of the service personnel's separation papers (DD Form 214) and the Miami Dade military service school training record form to the Admissions Office.

Veterans who have earned credit through USAFI or DANTES should request transcripts from Educational Testing Service. Prospective students may contact: Representative for DANTES, P.O. Box6604, Princeton, New Jersey 08541 .

SPECIAL INFORMATION

Computer Services

Miami Dade College provides students and faculty with a state-of-the-art computing and telecommunication infrastructure. The College's campuses and centers are interconnected by a highspeed gigabit fiber net work backbone supporting voice, video and data. The network currently provides 10Gbps bandwidth connection to the Internet from diverse sites using multiple service providers. Wireless connectivity for mobile computing is available in classrooms, libraries, conference centers, and outdoor locations. All classrooms are augmented with a variety of technological tools including computers and digital projectors that can enhance the learning experience. In addition to extensive computing facilities at each College location, the College also offers a wide array of online services for students. The MyMDC student portal and mobile app allow students to manage their college experience via web or mobile phone. The portal and mobile app provide self-services in admissions, orientation, registration, advising, financial aid, transcript requests, term grades, credit card payments, and many more. The Blackboard Learning Management System facilitates the creation and delivery of online instructions.

Institutional Advancement

(District Office)

The College secures essential support for student scholarships, STEM education, arts and culture, entrepreneur-

ship, workforce training, and other programs and projects through the Miami Dade College Resource Development Department, the Office of Alumni Relations, and the Miami Dade College Foundation, Inc.

Resource Development Department

The Resource Development Department identifies external sources of grant funding to support the programs and priorities of the College. The department works with College faculty, staff, and leadership to develop, prepare, and submit innovative grant proposals to public and private funding sources designed to promote excellence in teaching, learning, and institutional effectiveness. Resources obtained through grant awards help fund new and existing programs, special projects, student services, curriculum development, professional staff development, the construction of new facilities, exchange programs, research, new equipment, and student scholarships. The Resource Development Department also encourages public-private partnerships, and collaboration with industry, community-based organizations, and other educational institutions. In addition to handling all pre-award processes and post-award compliance assistance for the College, the department serves as the sponsored programs entity, with all grant applications going through it for approval of the College's authorized organizational representative and College Board of Trustees.

Miami Dade College Office of Alumni Relations

The Office of Alumni Relations advances the goals, objectives and priorities of Miami Dade College by generating private financial support, building and maintaining relationships with alumni and donors, and engaging alumni and students to foster a lifelong intellectual and emotional connection between MDC and its graduates.

Alumni are vital to the long-term success of Miami Dade College and supporting its strategic goals. With the Miami Dade College Foundation, the Office of Alumni Relations fosters and cultivates a common bond of pride, affinity and connectivity among alumni, students, prospective students and friends of the College through quality programs, services, events and programmatic initiatives.

Miami Dade College Foundation Inc.

Miami Dade College Foundation was chartered by the state of Florida in 1965 as a nonprofit 501(c)3 direct support organization of Miami Dade College. Governed and guided by an independent Board of Directors of more than a dozen community leaders, the Foundation raises awareness and financial resources for Miami Dade College to maintain open-door access to anyone who seeks an education, and to provide innovative and multicultural academic and cultural programs, all of which contribute to the vitality of our community.

The Foundation ensures the mission of Miami Dade College is accomplished by pursuing funding opportunities that support MDC's 2015-2020 Strategic Plan priorities:

- Students Access and Success
- Educational Quality
- institutional Agility

As state support for higher education continues to decline, the Foundation's efforts to identify alternative funding sources are vital to the future of MDC. The Foundation manages relationships with and seeks funding opportunities from individuals, private and family foundations, civic organizations and corporations. Gifts from these sources have established and continue to support scholarships, new programs, direct faculty support and critical capital improvement funds.

Contributions to the Foundation are tax deductible under Section 170 of the Internal Revenue Code and are administered according to gift agreements and donor intentions. Numerous donations from many generous sources have contributed to the growth of the Foundation's endowment, which is approximately $132 million. The endowment is comprised of more than 1,000 scholarship and program support donor accounts that directly benefit the College.

Endowed Teaching Chairs

The Miami Dade College Endowed Teaching Chair program is the first of its kind at a community college dedicated solely to recognizing excellence in teaching. Inaugurated in 1992, the Endowed Teaching Chair awards each recipient $22,500 over three years, allowing faculty to explore new teaching methods, develop new projects, purchase specialized or innovative teaching materials, enhance their technological expertise and further their own knowledge for the benefit of students.

The Endowed Teaching Chairs represent our institution's highest recognition of our faculty. Recipients of this award, past and present, have demonstrated to their peers the absolute definition of excellence in every aspect of teaching. Further, they have made student learning their top priority and, in doing so, help fulfill the mission of Miami Dade College.

The Endowed Teaching Chairs have been made possible through the generous support of individuals, corporations and organizations committed to the art of teaching and are managed by the Miami Dade College Foundation. Since the program's inception in 1992, the Foundation has awarded more than 300 Endowed Teaching Chairs. A gift of an Endowed Teaching Chair is among the most important contributions that can be made to the College and the thousands who are educated at MDC.

College Credit Courses and Career Technical Courses

College Credit Courses

Accounting

ACG1403 610
ACG2001 610
ACG2001L 610
ACG2011 610
ACG2011L 610
ACG2021 610
ACG2021L 610
ACG2031 610
ACG2071 610
ACG2071L 610
ACG2450 611
ACG2630 611
ACG3103 611
ACG3113 611
ACG3343 611
ACG4401 611
ACG4632 611
TAX2000 611
TAX2002 611
TAX2010 611
TAX2021 611
TAX2401 611
TAX4001 612
TAX4011 612

Aeronautical Science

ASC1210 612
ASC1550 612
ASC1610 612
ASC2320 612
ASC2470 612
ASC2670 612
ATF1601L 612
ATF2210 612
ATF2210L 612
ATF2305 612
ATF2305L 613
ATF2400 613
ATF2501 613
ATF2501L 613
ATT1100 613
ATT2110 613
ATT2120 613
ATT2131 613
ATT2133 613
ATT2660 613
ATT2820 614
ATT2821 614
ATT2822 614
ATT2823 614
AVM1010 614
AVM1022 614
AVM1062 614
AVM1121 614
AVM1160 614
AVM1161 614
AVM1162 614
AVM1163 614
AVM1164 615
AVM1440 615
AVM1949 615
AVM2120 615
AVM2410 615
AVM2431 615
AVM2441 615
AVM2450 615
AVM2510 615
AVM2515 615
AVM2949 615

Agriculture & Related Technologies

ATE1110 615
ATE1110L 616
ATE1211 616
ATE1630 616
ATE1650L 616
ATE1940 616
ATE1941 616
ATE2050L 616
ATE2611 616
ATE2612 616
ATE2614 616
ATE2631 616
ATE2636 616
ATE2636L 617
ATE2638 617
ATE2638L 617
ATE2639 617
ATE2639L 617
ATE2652L 617
ATE2655L 617
ATE2661 617
ATE2671C 617
ATE2710 617
ATE2722C 617
ATE2942 617
HOS1010 617
HOS1011 618
HOS2005 618
IPM2112 618
IPM2301 618
IPM2635 618
LDE2000 618
LDE2310 618
ORH1251 618
ORH1510 618
ORH2932 618
ORH2949 618

American Sign Language and ASL Interpretation

ASL1140C 618
ASL1150C 618
ASL2160C 618
ASL2200C 619
ASL2210 619
ASL2220 619
ASL2400 619
ASL2430 619
ASL2510 619

Anthropology

ANT2000 619
ANT2410 619
ANT2511 619

Architecture

ARC1115 620
ARC1126C 620
ARC1128 620
ARC1301 620
ARC1302 620
ARC1949 620
ARC2053 620
ARC2056 620
ARC2171C 620
ARC2172 620
ARC2180C 620
ARC2201 620
ARC2303 620
ARC2304 620
ARC2312C 621
ARC2461 621
ARC2580 621
ARC2681 621
ARC2701 621
ARC2702 621
ARC2949 621

Art

ARH1000 621
ARH2050 621
ARH2051 622
ARH2740 622
ARH2857 622
ART1201C 622
ART1202C 622
ART1203C 622
ART1205C 622
ART1300C 622
ART1330C 622
ART1803C 622
ART2301C 622
ART2302C 622
ART2400C 623
ART2401C 623
ART2406C 623
ART2500C 623
ART2501C 623
ART2502C 623
ART2600C 623
ART2601C 623
ART2602C 623
ART2701C 623
ART2702C 623
ART2703C 623
ART2750C 623
ART2751C 623
ART2771C 623
ART2802C 623
ART2950 623

Banking

BAN1004 623
BAN1231 624
BAN2210 624
BAN2211 624
BAN2511 624

Biochemistry

BCH3023 624
BCH3023L 624

Biological Science

BOT1010 624
BOT1010L 624
BOT2150C 624
BOT3015 624
BOT3015L 625
BSC1005 625
BSC1005L 625
BSC1084 625
BSC2010 625
BSC2010L 625
BSC2011 625
BSC2011L 625
BSC2020 625
BSC2085 625
BSC2085L 626
BSC2086 626
BSC2086L 626
BSC2426 626
BSC2426L 626
BSC2427 626
BSC2427L 626
BSC2943L 626
BSC3930 626
BSC4422 626

BSC4422L 626
BSC4434 627
BSC4940 627
MCB2010 627
MCB2010L 627
MCB3023 627
MCB3023L 627
MCB4503 627
OCB1010 627
PCB3043 627
PCB3060 627
PCB3060L 627
PCB4023 628
PCB4097 628
PCB4233C 628
PCB4674 628
PHI3633 628
ZOO3021 628
ZOO3021L 628

Building Construction

BCN1272 628
BCN1275 628
BCT1743 628
BCT1750 628
BCT1770 628
BCT1771 629
BCT2760 629
BCT2990 629

Business Law

BUL2131 629
BUL2241 629
BUL2242 629
BUL 4320 629
BUL4461 629

Chemistry

CHM1020 629
CHM1025 629
CHM1025L 630
CHM1033 630
CHM1033L 630
CHM1045 630
CHM1045L 630
CHM1046 630
CHM1046L 630
CHM2200 630
CHM2200L 630
CHM2210 630
CHM2210L 631
CHM2211 631
CHM2211L 631
CHS1522C 631
CHS2523 631

Chinese Language

CHI1120 631
CHI1121 631
CHI2220 631
CHI2221 631

Computer Science & Related Technologies

CAI1001C 631
CAI2100C 631
CAI2300C 631
CAI2820C 632
CAI2840C 632
CAI3303C 632
CAI3821C 632
CAI3822C 632
CAI4420C 632
CAI4505C 632
CAI4510C 632
CAI4525C 632
CAI4830C 632
CAI4950C 632
CAP1788 632
CAP2047 633
CAP2048 633
CAP2743C 633
CAP2761C 633
CAP2791C 633
CAP2920C 633
CAP3321C 633
CAP3330 633
CAP3770 633
CAP4631C 633
CAP4633C 633
CAP4744 634
CAP4767 634
CAP4784 634
CAP4910 634
CAP4936 634
CEN2211 634
CEN2212C 634
CEN4025C 634
CEN4090C 634
CGS1005C 634
.CGS1060C 634
CGS1540C 635
CGS1560 635
CGS1700 635
CGS2091 635
CGS2108 635
CGS3763 635
CIS1321 635
CIS1531 635
CIS1949 635
CIS2322 635
CIS2350 635
CIS2430C 636
CIS2900 636
CIS2949 636
CIS3215 636
CIS3360 636
CIS3361 636
CIS3368 636
CIS3510 636
CIS4204 636
CIS4347 636
CIS4364 637
CIS4366 637
CIS4378 637
CIS4388 637
CIS4617 637
CIS4891 637
CNT3409C 637
CNT3526C 637
CNT4603 637
CNT4702 637
COP1047C 638
COP1332 638
COP1334 638
COP2270 638
COP2333 638
COP2335 638
COP2654 638
COP2658 638
COP2660 638
COP2662 638
COP2800 639
COP2805C 639
COP2842 639
COP3530 639
COP4656 639
COP4723 639
COP4807 639
COP4834 639
COT4400 639
CTS1111 639
CTS1120 639
CTS1131 640
CTS1134 640
CTS1145 640
CTS1328 640
CTS1437 640
CTS1650 640
CTS1651 640
CTS1800 640
CTS2143C 640
CTS2148C 640
CTS2153 641
CTS2154 641
CTS2192C 641
CTS2303 641
CTS2306 641
CTS2314 641
CTS2334 641
CTS2375C 641
CTS2433 641
CTS2440 641
CTS2441 641
CTS2442 642
CTS2444 642
CTS2450 642
CTS2451 642
CTS2463 642
CTS2466C 642
CTS2652 642
CTS2653 642
CTS2664 642
CTS2670 642
CTS2960 643
CTS3452 643
CTS4935C 643
DIG1111 643
DIG1132 643
DIG1302 643
DIG1430 643
DIG1437 643
DIG1705 643
DIG1710 643
DIG1729C 644
DIG1772C 644
DIG2113 644
DIG2304 644
DIG2318 644
DIG2319 644
DIG2370 644
DIG2391C 644
DIG2396C 644
DIG2626 644
DIG2712 644
DIG2717C 645
DIG2771 645
DIG2776C 645
DIG2777C 645
DIG2790 645

Criminal Justice_& Related Technologies

CCJ1010 645
CCJ1020 645
CCJ1191 645
CCJ2053 645
CCJ2358 645
CCJ2650 645
CCJ2760 645
CCJ2949 645
CCJ3032 646
CCJ3663 646
CCJ3666 646
CCJ3700 646
CCJ4054 646
CCJ4450 646
CCJ4641 646
CCJ4651 646
CCJ4660 646
CCJ4678 646
CJC1000 646
CJC1162 646
CJC4163 646
CJC4311 646
CJE1640 646
CJE1642 646
CJE1673 647
CJE1680 647
CJE1772 647
CJE2600 647
CJE2644 647
CJE2671 647
CJE2672 647
CJE3110 647
CJE3115 647
CJE3444 647
CJE3574 647
CJE4615 647
CJE4647 647
CJE4648 647
CJE4650 647
CJE4668 648
CJE4675 648
CJJ2002 648
CJL1000 648
CJL1100 648
CJL2062 648
CJL2610 648
CJL3044 648
CJL3564 648
CJL4133 648
CJL4514 648
DSC1002 648

DSC1006 648
DSC1590 648
DSC2242 648
DSC2501 649
DSC2590 649
DSC4012 649
DSC4014 649
DSC4214 649
DSC4215 649
FES4003 649
FES4823 649

Dance

DAA1100 649
DAA1101 649
DAA1104 649
DAA1105 649
DAA1200 649
DAA1201 649
DAA1204 649
DAA1205 650
DAA1290 650
DAA1291 650
DAA1330 650
DAA1504 650
DAA1680 650
DAA2106 650
DAA2107 650
DAA2202 650
DAA2206 650
DAA2207 650
DAA2570 650
DAA2571 650
DAA2610 650
DAA2611 650
DAA2680 651
DAA2681 651
DAN2100 651
DAN2130 651
DAN2131 651
DAN2430 651
DAN2431 651
DAN2630 651

Dental Hygiene

DEH1002 651
DEH1002L 651
DEH1133 651
DEH1400 651
DEH1710 652
DEH1720 652
DEH1800 652
DEH1800L 652
DEH1802L 652
DEH1804L 652
DEH1811 652
DEH1840L 652
DEH1940L 652
DEH2202 652
DEH2300 652
DEH2300L 652
DEH2602 652
DEH2603 653
DEH2603L 653
DEH2701 653
DEH2702L 653
DEH2806 653
DEH2806L 653
DEH2808 653
DEH2808L 653
DEH2810L 653
DES1200 653
DES1200L 653
DES1600 653
DES2100 653
DES2100L 653

Economics

ECO2013 653
ECO2023 653
ECO2301 654

Education

EDE1040 654
EDE1044 654
EDE1045 654
EDE1046 654
EDF1005 654
EDF2130 654
EDF2144 654
EDF3115 654
EDF4430 654
EDF4433 655
EDG2311 655
EDG2943 655
EDG3321 655
EDG3410 655
EDG3443 655
EDG4343 655
EDG4376 655
EEC1000 655
EEC1200 655
EEC1308 656
EEC1311 656
EEC1522 656
EEC1713 656
EEC1752 656
EEC1753 656
EEC2002 656
EEC2201 656
EEC2202 656
EEC2224 656
EEC2225 657
EEC2271 657
EEC2302 657
EEC2401 657
EEC2407 657
EEC2520 657
EEC2523 657
EEC2527 657
EEC2601 657
EEC3213 658
EEC3301 658
EEC3412 658
EEC3613 658
EEC4219C 658
EEX2000 658
EEX3201 658
EEX4094 658
EEX4232 658
EEX4613 658
EEX4761 659
EEX4932 659
EME2040 659
EME2071 659
EME4610 659
EME4611 659
EME4612 659
EME4671 659
EME4683 659
TSL2082 659

Education Foundations & Policy Studies

EDF4991 659
EDF4993 660
EDF4994 660
EEC3211 660
EEC3212 660
EEC4219C 660
EEC4268 660
EEC4936 660
EEC4936C 660
EEC4940 660
EEC4940C 660
EEX3071 660
EEX3120 661
EEX3226 661
EEX3603 661
EEX4012 661
EEX4024 661
EEX4221 661
EEX4294 661
EEX4833 661
EEX4930 661
EEX4931 661
EEX4940 661
EEX4992 662
MAE3951 662
MAE4360 662
MAE4940 662
MAE4942 662
MAE4945 662
MHF4404 662
SCE4362 662
SCE4363 662
SCE4943 662
SCE4945 662

Education: American Sign Language and ASL Interpretation

INT1000 663
INT1202 663
INT1240 663
INT1400 663
INT1480 663
INT1941 663

Emergency Medical Services

EMS1059 663
EMS1059L 663
EMS1119 663
EMS1119L 663
EMS1431 664
EMS2311 664
EMS2601 664
EMS2601L 664
EMS2602 664
EMS2602L 664
EMS2659 664
EMS2664 664
EMS2665 664

Engineering - General

EGN1008C 664
EGN1949 665
EGN2200 665
EGN2312 665
EGN2322 665
EGS1010 665

Engineering Technology Drafting

ETD1340 665

Engineering Technology Electrical

CET1110C 665
CET1171 665
CET1178C 665
CET1487C 665
CET2113C 666
CET2123C 666
CET2588C 666
CET2664C 666
CET2880C 666
CET3126C 666
CET3383C 666
CET4190C 666
CET4663C 666
EET1015C 666
EET1025C 667
EET1033C 667
EET1082 667
EET1141C 667
EET2101C 667
EET2323C 667
EET2351C 667
EET3716C 667
EET4158C 667
EET4165C 667
EET4166C 667
EET4730C 668
EET4732C 668
ETI1152C 668
ETI1701 668
ETI2670 668
ETI4480C 668
ETP2040C 668
ETP2410C 668
ETP2501C 668
ETP3240 668
ETP3320 669
ETS1603C 669
ETS2632C 669
ETS2673C 669

Engineering Technology-General

ETI1040 669
ETI1172 669
ETI1622 669

ETI1644 669
ETI2404 669
ETM1315C 669

English Language & Literature

AML2010 670
AML2020 670
AML2600 670
CRW2001 670
CRW2002 670
ENC1101 670
ENC1102 670
ENC1112 670
ENC1113 670
ENC2300 670
ENG2012 670
ENL2012 670
ENL2022 670
LIT2000 670
LIT2090 671
LIT2120 671
LIT2480 671

English Language and Literature - College Preparatory

ENC0015 671
ENC0025 671
ENC0027 671

Entrepreneurship

ENT1501 671
ENT2201 671
ENT2212 671
ENT2270 671
ENT2421 672
ENT2502 672

Environmental Science

EVR1001 672

ESL For Academic Purposes

EAP0100 672
EAP0100L 672
EAP0120 672
EAP0140 672
EAP0140L 672
EAP0160 672
EAP0200 672
EAP0200L 672
EAP0220 672
EAP0240 672
EAP0240L 672
EAP0260 673
EAP0300 673
EAP0300L 673
EAP0320 673
EAP0340 673
EAP0340L 673
EAP0360 673
EAP0385 673
EAP0386 673
EAP0400 673
EAP0400L 673
EAP0420 673
EAP0440 673
EAP0440L 673
EAP0460 673
EAP0485 673
EAP0486 674
EAP0493 674
EAP0494 674
EAP1500 674
EAP1500L 674
EAP1501 674
EAP1501L 674
EAP1502 674
EAP1502L 674
EAP1520 674
EAP1540 674
EAP1540L 674
EAP1560 674
EAP1581 674
EAP1585 675
EAP1586 675
EAP1600 675
EAP1600L 675
EAP1620 675
EAP1640 675
EAP1640L 675
EAP1660 675
EAP1683 675
EAP1685 675
EAP1686 675
EAP1689 675

Fashion

CTE1050 675
CTE1401 676
CTE1721C 676
CTE1743C 676
CTE1801 676
CTE1841C 676
CTE1942 676
CTE2111C 676
CTE2120 676
CTE2301 676
CTE2310C 676
CTE2330C 676
CTE2342C 677
CTE2388 677
CTE2610 677
CTE2722C 677
CTE2732 677
CTE2745C 677
CTE2749C 677
CTE2760C 677
CTE2800 677
CTE2802 677
CTE2836 678

Film, Radio, TV Technology

DIG3255C 678
DIG3347C 678
DIG3940 678
DIG4345C 678
FIL1030 678
FIL1055 678
FIL1060 678
FIL1100 678
FIL1420C 678
FIL1431C 678
FIL2131 678
FIL2413 678
FIL2480C 678
FIL2515C 678
FIL2552C 679
FIL2553C 679
FIL2560C 679
FIL2611 679
FIL2945 679
FIL2951 679
FIL3602 679
FIL3651 679
FIL4164 679
FIL4585C 679
FIL4586C 679
RTV1000 679
RTV1240C 679
RTV1241C 679
RTV1242C 679
RTV2243C 680
RTV2245C 680
RTV2246C 680
RTV2300 680
RTV2940 680
RTV2942 680
RTV3203 680
RTV3256C 680
RTV3277C 680
RTV3408 680
RTV3810C 680
VIC1000 680

Finance

FIN1930 680
FIN2000 680
FIN2010 680
FIN2031 681
FIN2032 681
FIN2051 681
FIN2100 681
FIN2642 681
FIN2990 681
REE2304 681

Fire Science

FFP1000 681
FFP1301 681
FFP1302 681
FFP1505 681
FFP1510 682
FFP1540 682
FFP1740 682
FFP1810 682
FFP2120 682
FFP2521 682
FFP2720 682
FFP2741 682

Food Service

FOS2203 682
FSS1100 682
FSS1200 682
FSS1202C 683
FSS1204C 683
FSS1246C 683
FSS1801 683
FSS2205C 683
FSS2242C 683
FSS2248C 683
FSS2381 683
FSS2940 683
FSS2950L 683

Foreign Languages (In Translation)

FOT2220 684
FOT2701 684
FOT2802 684
FOT2821 684
FOT2822 684
FOT2823 684
FOT2824 684
FOT2825 684
FOT2826 684
FOT2827 685
FOT2828 685
FOT2829 685

French Language and Literature

FRE1120 685
FRE1121 685
FRE2220 685

Funeral Services Education

FSE1000 685
FSE1080 685
FSE1105 685
FSE2060 685
FSE2061 686
FSE2100 686
FSE2100L 686
FSE2106 686
FSE2120C 686
FSE2140 686
FSE2140L 686
FSE2160 686
FSE2200 686
FSE2201 686
FSE2202 686
FSE2203C 686
FSE2930L 687
FSE2932 687

General Business

GEB1000 687
GEB1011 687
GEB1432 687
GEB1949 687
GEB2100 687
GEB2112 687
GEB2350 687
GEB2949 687
GEB3213 687
GEB3358 687
GEB3522 688
GEB4363 688

Geographic Information System

GIS1040 688

GIS2045 688
GIS2046 688
GIS2047 688

Geology
ESC1000 688
GLY1010 688
GLY1100 688

German Language
GER1120 689
GER1121 689

Graphic Arts
GRA1111C 689
GRA1113C 689
GRA1206C 689
GRA1280C 689
GRA1750 689
GRA1751 689
GRA1752 689
GRA1753 689
GRA1754 689
GRA1949 690
GRA2117C 690
GRA2121C 690
GRA2151C 690
GRA2156C 690
GRA2162C 690
GRA2190C 690
GRA2191C 690
GRA2203C 690
GRA2207C 690
GRA2305C 690
GRA2545C 691
GRA2546C 691
GRA2727 691
GRA2755 691
GRA2949 691
GRA2991C 691

Health Information Management
HIM1000 691
HIM1110 691
HIM1110L 691
HIM1300 691
HIM1800 691
HIM2012 691
HIM2211C 692
HIM2214C 692
HIM2222 692
HIM2222L 692
HIM2234 692
HIM2234L 692
HIM2253C 692
HIM2400C 692
HIM2433 692
HIM2472 692
HIM2500 692
HIM2500L 693
HIM2512C 693
HIM2652C 693
HIM2813 693
HIM2820 693
HIM9995 693

Health Science
HSA1102 693
HSA1380 693
HSA2001 693
HSA2181 693
HSA2532 693
HSA3533 694
HSC1149 694
HSC2060 694
HSC2400 694
HSC2810 694
HSC3057 694
HSC3202 694
HSC3655 694
HSC3701 694
HSC4942 694

History
AMH2010 694
AMH2020 695
AMH2035 695
AMH2079 695
AMH2090 695
AMH2091 695
EUH2032 695
LAH2021 695
LAH2025 695
WOH2003 695
WOH2012 695
WOH2022 695

Hospitality Management
HFB2990 695
HFT1000 696
HFT1210 696
HFT1212 696
HFT1220 696
HFT1300 696
HFT1841 696
HFT1852 696
HFT2223 696
HFT2241 696
HFT2261 696
HFT2410 696
HFT2421 697
HFT2449 697
HFT2500 697
HFT2501 697
HFT2750 697
HFT2772 697
HFT2800 697
HFT3263 697
HFT3603 697
HFT4064 697
HFT4253 697
HFT4468 698
HFT4809 698
HRM2990 698

Human Services
HUS1001 698
HUS1302 698
HUS1318 698
HUS1421 698
HUS1423 698
HUS1428 698
HUS1440 698
HUS1475 698
HUS1480 699
HUS2303 699
HUS2493 699
HUS2500 699
HUS2820 699

Humanities
HUM1020 699
HUM2513 699

Interdisciplinary Honors
IDH1001 699
IDH1002 699
IDH2003 699
IDH2004 700

Interdisciplinary Studies
IDS1107 700
IDS2124 700

Interior Design
IND1020 700
IND1100 700
IND1130 700
IND1200 700
IND1300 700
IND2201 700
IND2210 700
IND2220 700
IND2330 700
IND2421 700
IND2430 700
IND2500 700
IND2608 701

Italian Language
ITA1120 701
ITA1121 701
ITA2220 701

Japanese Language
JPN1120 701
JPN1121 701
JPN2220 701
JPN2221 701

Journalism
JOU1100 701
JOU1946 701
JOU2200 701

Library Science
LIS2004 701

Linguistics
LIN2011 701

Management
FIN3400 702
FIN3403 702
ISM4011 702
MAN2021 702
MAN2300 702
MAN2604 702
MAN3025 702
MAN3065 702
MAN3240 702
MAN3301 703
MAN3322 703
MAN3504 703
MAN3506 703
MAN3554 703
MAN3562 703
MAN3577 703
MAN3578 703
MAN3583 703
MAN3731 703
MAN3786 704
MAN3888 704
MAN4113 704
MAN4120 704
MAN4162 704
MAN4330 704
MAN4335 704
MAN4350 704
MAN4352 704
MAN4361 704
MAN4402 704
MAN4520 705
MAN4523 705
MAN4552 705
MAN4570 705
MAN4593 705
MAN4597 705
MAN4719 705
MAN4720 705
MAN4732 705
MAN4741 706
MAN4887 706
MAN4894 706
MAN4900 706
MAN4940 706
MAN4941 706
MNA1130 706
MNA1345 706
MNA2120 706
PET1170 706
PET1173 707
SBM1000 707
SPM1000 707
SPM1160 707
SPM2105 707
SPM2151 707
SPM2164 707
SPM2167 707
SPM2201 707
SPM2950 707
TRA1154 708

Marketing
MAR1011 708
MAR1440 708
MAR1502 708
MAR1720 708
MAR1930 708
MAR1931 708
MAR1932 708
MAR1933 708
MAR2101 708
MAR2150 708

MAR2419 708
MAR2520 709
MAR2703 709
MAR2704 709
MAR2935 709
MAR2952 709
MAR3325 709
MAR3803 709
MAR4203 709
MAR4233 709
MAR4327 709
MAR4674 709
MAR4721 709
MAR4860 710
MKA1021 710
MKA1022 710
MKA1160 710
MKA1161 710
MKA1511 710
MKA2024 710

Mass Communications

MMC2000 710
PUR2003 710

Mathematics College Level

MAC1105 710
MAC1105L 711
MAC1106 711
MAC1114 711
MAC1140 711
MAC1147 711
MAC2233 711
MAC2311 711
MAC2312 711
MAC2313 711
MAD1100 712
MAD2104 712
MAD3107 712
MAP2302 712
MAS2103 712
MAS3105 712
MAS3301 712
MAS4203 712
MAT1033 712
MAT1033L 712
MGF1130 712
MGF1131 713
MTB1103 713
MTG3214 713

Mathematics – Developmental Education

MAT0018 713
MAT0022 713
MAT0028 713
MAT0029 713
MAT0057 713

Medical Laboratory Technology

MLS3150 713
MLS4181C 714
MLS4193 714
MLS4195C 714
MLS4196C 714
MLS4198 714
MLS4221 714
MLS4306 714
MLS4335 714
MLS4461 714
MLS4506 714
MLS4552 714
MLS4621 714
MLS4630 714
MLS4705 714
MLS4910 714
MLT1040L 715
MLT1191 715
MLT1191L 715
MLT1195C 715
MLT1196 715
MLT1210C 715
MLT1300 715
MLT1300L 715
MLT1330 715
MLT1330L 715
MLT1500 715
MLT1500L 715
MLT1610 715
MLT1610L 715
MLT1752 716
MLT1840L 716
MLT2180C 716
MLT2192 716
MLT2192L 716
MLT2197C 716
MLT2198 716
MLT2198L 716
MLT2403 716
MLT2403L 716
MLT2440 716
MLT2440L 716
MLT2525 716
MLT2525L 716
MLT2620 717
MLT2620L 717
MLT2624L 717
MLT2807L 717
MLT2809L 717
MLT2810L 717
MLT2811L 717
MLT2841L 717
MLT2930 717
MLT2931 717

Meteorology

MET1010 717

Military Science

AFR1101 717
AFR1111 717
AFR2130 718
AFR2131 718
MSL1001 718
MSL1002 718
MSL2101 718
MSL2102 718
MSL3201 718
MSL3202 718

Music

MUC1201 718
MUC1202 718
MUC2101 718
MUC2102 718
MUC2601 719
MUE1430 719
MUH2111 719
MUH2112 719
MUL1010 719
MUL2380 719
MUM1949 719
MUM2030 719
MUM2600 719
MUM2600L 719
MUM2601 719
MUM2601L 719
MUM2604 719
MUM2605 719
MUM2623C 720
MUM2624C 720
MUM2700 720
MUM2702 720
MUM2703 720
MUM2704 720
MUN1120 720
MUN1210 720
MUN1310 720
MUN1340 720
MUN1391 720
MUN1420 720
MUN1430 721
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MUN1480 721
MUN1710 721
MUN1720 721
MUN2341 721
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MUN2711 721
MUN2712 721
MUO1501 721
MUS1211 721
MUS1241 721
MUT1001 721
MUT1003 721
MUT1111 722
MUT1112 722
MUT1241 722
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MUT2247 722
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MVB2225 723
MVB2321 724
MVB2322 724
MVB2323 724
MVB2324 724
MVB2325 724
MVJ1010 724
MVJ1011 724
MVJ1013 724
MVJ1014 724
MVJ1016 724
MVJ1017 724
MVJ1018 724
MVJ1019 724
MVJ1210 724
MVJ1211 724
MVJ1212 724
MVJ1213 724
MVJ1214 725
MVJ1215 725
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MVJ1316 725
MVJ1317 725
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MVJ1319 725
MVJ2220 726
MVJ2221 726
MVJ2222 726
MVJ2223 726
MVJ2224 726
MVJ2225 726
MVJ2226 726
MVJ2229 726
MVJ2320 726
MVJ2321 726
MVJ2322 726
MVJ2323 726
MVJ2324 726
MVJ2326 726
MVJ2327 726
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MVJ2329 727
MVK1011 727
MVK1012 727
MVK1013 727
MVK1111 727
MVK1112 727
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MVK2121 727
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MVK2221 727
MVK2222 727
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MVK2322 728
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MVS1017 728
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MVV1011 730
MVV1111 730
MVV1211 730
MVV1311 730
MVV2221 730
MVV2321 730
MVW1011 730
MVW1012 730
MVW1013 730
MVW1014 730
MVW1015 730
MVW1211 730
MVW1212 730
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MVW1215 731
MVW1311 731
MVW1312 731
MVW1313 731
MVW1314 731
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MVW2221 731
MVW2223 731
MVW2224 731
MVW2225 731
MVW2321 731
MVW2322 731
MVW2323 731
MVW2325 731

Nuclear Medicine

NMT1002L 732
NMT1312C 732
NMT1705C 732
NMT1713C 732
NMT2102 732
NMT2130C 732
NMT2534C 732
NMT2613 732
NMT2723C 732
NMT2733C 732
NMT2779C 732
NMT2804C 733
NMT2814C 733
NMT2824C 733
NMT2834C 733
NMT2932C 733

Nursing

NSP3685 733
NUR1002 733
NUR1002L 733
NUR1006 733
NUR1008 733
NUR1025 734
NUR1025C 734
NUR1025L 734
NUR1060C 734
NUR1141 734
NUR1211 734
NUR1211L 734
NUR1214C 734
NUR2212 734
NUR2212L 734
NUR2220 734
NUR2220L 735
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NUR2310L 735
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NUR2420L 735
NUR2520 735
NUR2520L 735
NUR2680L 735
NUR2811C 735
NUR2960 735
NUR3069 735
NUR3125 735
NUR3165 736
NUR3178 736
NUR3289 736
NUR3674 736
NUR3805 736
NUR4146 736
NUR4636 736
NUR4636L 736
NUR4667 736
NUR4827 737
NUR4945C 737

Nutrition

HUN1201 737

Oceanography

OCE1001 737

Office Technology

OST2335 737

Paralegal

PLA1949 737
PLA2003 737
PLA2114 737
PLA2120C 737
PLA2227 738
PLA2273 738
PLA2303 738
PLA2600 738
PLA2610 738
PLA2631C 738
PLA2704 738
PLA2736 738
PLA2763 739
PLA2800 739
PLA2890 739
PLA2930 739
PLA2931 739
PLA2933 739
PLA2934 739
PLA2935 739
PLA2940 739

Philosophy and Logic

PHI1100 739
PHI2010 739
PHI2070 739
PHI2600 739
PHI2604 740
PHI2680 740

Photography

PGY2110C 740
PGY2111C 740
PGY2112C 740
PGY2211 740
PGY2222 740
PGY2238 740
PGY2239 740
PGY2401C 740
PGY2404C 740
PGY2470C 740
PGY2475 740
PGY2800C 741

Physical Education

HLP1081 741

Physical Therapist Assistant

PHT1102C 741
PHT1201 741
PHT1201L 741
PHT1211 741
PHT1211L 741
PHT2120 741
PHT2120L 741
PHT2162 742
PHT2224 742
PHT2224L 742
PHT2701 742
PHT2701L 742
PHT2801C 742
PHT2810 742
PHT2820 742
PHT2931 742

Physician Assistant

PAS1800C 742
PAS1801C 743
PAS1803 743
PAS1811C 743
PAS1812 743
PAS1813 743
PAS1820C 743
PAS1822L 743
PAS1823 743
PAS1824 743
PAS1831 743
PAS2936 743
PAS3019 743
PAS3038C 743
PAS3042C 744
PAS3070 744
PAS3075 744
PAS3140 744
PAS3203C 744
PAS4191L 744
PAS4290 744
PAS4391 744
PAS4493 744
PAS4590 744
PAS4690 744
PAS4940 745
PAS4943 745

Physics

AST1002 745
AST1002L 745
PHY1004 745
PHY1004L 745
PHY1020 745
PHY1025 745
PHY2048 745
PHY2048L 745
PHY2049 746
PHY2049L 746
PHY2053 746
PHY2053L 746
PHY2054 746
PHY2054L 746
PSC1121 746
PSC1515 746

Political Science

CPO2100 746
CPO2408 746
CPO2441 747
INR1949 747
INR2002 747
INR2440 747
INR2949 747
INS2200 747
INS2300 747
INS2310 747
ISS2270 747
POS2041 747
POS2112 748
POS2293 748

POT2014 748

Portuguese Language
POR1120 748
POR1121 748
POR2220 748

Psychology
CLP1006 748
CLP2000 748
CLP2140 748
CLP2431 749
CLP2470 749
DEP2000 749
DEP2100 749
DEP2402 749
EAB1001 749
INP2390 749
PSB2041 749
PSB2442 749
PSY2012 749
PSY2050 749
PSY2800 750
PSY2940C 750
SOP2002 750
SOP2772 750

Quantitative Methods in Business
QMB2100 750

Radiation Therapy Technology
RAT1001 750
RAT1021 750
RAT1614 750
RAT1615 750
RAT1619 750
RAT1657 750
RAT1804L 750
RAT1814L 751
RAT1824L 751
RAT2022 751
RAT2061 751
RAT2123 751
RAT2241 751
RAT2243 751
RAT2618 751
RAT2834L 751

Radiologic Technology
RTE1000 751
RTE1418 751
RTE1503 751
RTE1503L 751
RTE1513 751
RTE1513L 751
RTE1613 751
RTE1804 752
RTE1814 752
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RTE2385 752
RTE2457 752
RTE2563 752
RTE2571 752
RTE2575 752
RTE2576 752
RTE2577C 752
RTE2762 752
RTE2834 752
RTE2844 752
RTE2854 752
RTE2940C 753

Reading College Preparatory
REA0007 753
REA0017 753

Reading Education
LAE4211 753
RED3009 753
RED3013 753
RED3393 753
RED4033 753
RED4342 753
RED4519 754
RED4541 754
RED4654 754
RED4854 754

Real Estate
REE2040 754

Religion
REL1210 754
REL1240 754
REL2300 754

Respiratory Care
RET 1024C 754
RET1484 754
RET2264 755
RET2274C 755
RET2275C 755
RET2284 755
RET2284L 755
RET2350 755
RET2414 755
RET2414L 755
RET2503 755
RET2601 755
RET2714 755
RET2714L 755
RET2832 755
RET2833 755
RET2834 756
RET2835 756

Russian Language
RUS1120 756
RUS1121 756

Social Science
ISS1120 756
ISS1161 756
ISS1301 756

Sociology
SYG2000 756
SYG2010 756
SYG2230 756
SYG2430 756

Sonography
SON1000L 756
SON1001L 757
SON1005L 757
SON1006L 757
SON1100L 757
SON1111C 757
SON1112C 757
SON1113L 757
SON1115L 757
SON1121C 757
SON1122C 757
SON1141C 757
SON1145L 758
SON1804 758
SON1814 758
SON1824 758
SON2139L 758
SON2151C 758
SON2171C 758
SON2400C 758
SON2401C 758
SON2614C 758
SON2618C 758
SON2619C 758
SON2834 759
SON2844 759
SON2854 759
SON2930L 759
SON2935L 759

Spanish Language and Literature
SPN1120 759
SPN1121 759
SPN2220 759
SPN2340 759
SPN2341 759
SPT2842 759
SPW2010 759
SPW2020 759

Speech Communication
SPC1017 759
SPC2601 759
SPC2608 760
SPC2940 760

Statistics
STA2023 760
STA3164 760
STA4210 760

Student Life Skills
SLS1106 760
SLS1125 760
SLS1401 760
SLS1502 760
SLS1505 760
SLS1510 760

Surgical Technology
STS1302 761
STS1303 761
STS1304L 761
STS1307 761
STS1308 761
STS1323 761
STS1327L 761
STS1925C 761
STS1926C 761
STS1931 761
STS2179 762
STS2324 762
STS2340 762
STS2360 762
STS2944 762
STS2945 762
STS2946 762

Surveying
SUR1001C 762
SUR1101C 762

Teaching English as a Second Language
TSL3080 762
TSL3243 762
TSL4310 763
TSL4311 763
TSL4324C 763

Theater Arts
THE2000 763
THE2083 763
TPA1200 763
TPA1232 763
TPA1248 763
TPA2233 763
TPA2292 763
TPA2600 763
TPP1100 764
TPP1110 764
TPP1120 764
TPP1150 764
TPP1160 764
TPP1161 764
TPP1170 764
TPP1190 764
TPP1250 764
TPP1260 764
TPP1606 764
TPP1700 764
TPP2111 764
TPP2112 764
TPP2151 764
TPP2152 765
TPP2162 765
TPP2163 765
TPP2191 765
TPP2256 765
TPP2260 765
TPP2300 765

Transportation and Traffic Management
TRA1410 765
TRA1420 765
TRA1430 765
TRA2010 765
TRA2156 766
TRA2321 766
TRA2402 766
TRA2702 766
TRA2945 766
TRA3034 766
TRA3132 766
TRA4234 766

Travel Industry Management
HFT1454 766
HFT1949 766
HFT2949 767

Vision Care Technology/ Opticianry
OPT1110 767
OPT1150 767
OPT1205 767
OPT1330 767
OPT1331 767
OPT1331L 767
OPT1450 767
OPT1450L 767
OPT2060 767
OPT2070L 767
OPT2375 767
OPT2375L 768
OPT2376L 768
OPT2377L 768
OPT2420 768
OPT2420L 768
OPT2421C 768
OPT2422C 768
OPT2451 768
OPT2451L 768
OPT2505 768
OPT2506 768
OPT2506L 768
OPT2800L 768
OPT2801L 768
OPT2802L 768
OPT2830C 769
OPT2831L 769
OPT2875L 769
OPT2876L 769

Educator Preparation Institute
EPI0001 769
EPI0002 769
EPI0003 769
EPI0004 769
EPI0010 769
EPI0020 769
EPI0030 770
EPI0940 770
EPI0945 770

Career Technical Courses

Automotive Mechanics
AER0605 770
AER0606 770

Aviation Maintenance Technology
AMT0044 770
AMT0045 770
AMT0046 770
AMT0047 771
AMT0219 771
AMT0269 771
AMT0509 771
AMT0949 771

Computer Science & Related Technologies
EEV0162 771
EEV0163 771
EEV0164 771
EEV0165 771
EEV0166 771

Criminal Justice & Related Technologies
CJK0002 771
CJK0016 771
CJK0018 771
CJK0019 771
CJK0020 772
CJK0021 772
CJK0031 772
CJK0040 772
CJK0051 772
CJK0063 772
CJK0072 772
CJK0073 772
CJK0079 772
CJK0093 772
CJK0096 772
CJK0132 772
CJK0300 772
CJK0305 773
CJK0310 773
CJK0315 773
CJK0320 773
CJK0325 773
CJK0330 773
CJK0335 773
CJK0340 773
CJK0400 773
CJK0401 773
CJK0402 773
CJK0403 773
CJK0421 774
SCY0051 774
SCY0052 774

Dental Assistant
DEA0020 774
DEA0020L 774
DEA0031 774
DEA0132 774
DEA0800L 774
DEA0804L 774
DEA0930 774

Dental Support
DES0021 774
DES0103 775
DES0103L 775
DES0205 775
DES0205L 775
DES0206 775
DES0206L 775
DES0501 775
DES0602 775
DES0830 775
DES0830L 775

Emergency Medical Services
EMS0110 775

Fire Science
FFP0021 775
FFP0077 775

Health Science
HIM0009 776
HSC0003 776
HSC0003L 776

Massage Therapy
MSS0156 776
MSS0156L 776
MSS0215 776
MSS0250 776
MSS0250L 776
MSS0281 776
MSS0300 776
MSS0300L 776
MSS0803C 776
MSS0995 776
MSS0996 777

Medical Assisting
MEA0204 777
MEA0204L 777
MEA0231 777
MEA0234 777
MEA0242 777
MEA0254 777
MEA0254L 777
MEA0258 777
MEA0322 777
MEA0334C 777
MEA0343 777
MEA0540 778
MEA0802 778
MEA0810 778
MEA0832 778

Nursing
NSG0080 778
NSG0081 778
NSG0082 778
NSG0083 778
NSG0084 778
NSG0085 778
NSG0086 779
NSG0087 779
NSG0089 779

Phlebotomy
MLT0041 779
MLT0048 779
MLT0061 779

Pharmacy Technician
PTN0003 779
PTN0004 779
PTN0006 779
PTN0021 779
PTN0041 779
PTN0049 780

Practical Nursing
PRN0005C 780
PRN0006C 780
PRN0021C 780
PRN0035C 780
PRN0082C 780
PRN0130C 780
PRN0210C 780
PRN0211C 780

Surgical Technology
STS0013 780
STS0019 781

Transportation and Traffic Management
TRA0080 781
TRA0084 781

COLLEGE CREDIT COURSES

Miami Dade College courses are developed and offered to meet the many and varied needs of both individual students and the community.College credit courses are offered in general education, occupational/technical, nursing, allied health, business, and public service disciplines. The following are descriptions of more than 2,000 college credit courses at Miami Dade College. These Courses are applicable to the Baccalaureate, Associate of Arts, and Associate in Science, Associate of Applied Science degree programs and/or certificate programs. They are listed in alphabetical order by title according to the State Course Numbering System directory of taxonomies and are subject to change.Not all courses are offered each term or at each campus.Check the registration handbook of the campus you are attending, or plan to attend, prior to registration each term.

Accounting

ACG1403
Excel for Business
1.00 – 3.00 credits
This course will cover Excel topics relevant to the field of accounting and finance including, but not limited to, VLOOKUP, HLOOKUP, INDEX, MATCH, IF, AND, OR, Pivot Tables, Named Ranges, Array Formulas, Custom Number Formats, Conditional Formatting, Absolute References and Keyboard Shortcuts.

ACG2001
Principles of Accounting 1
3.00 credits
An introduction to the basic principles of financial accounting with emphasis on basic accounting procedures such as the recording of transactions and the preparation of financial statements. Other topics include inventories, receivables, and cash. ACG 2001 and ACG 2011 can be substituted for ACG 2021. Corequisite: ACG 2001L.

ACG2001L
Principles of Accounting 1 Lab
1.00 credits
Students will use personal computer software and financial accounting applications to analyze accounting records and prepare financial statements. This course will reinforce, with tutorial help and problem-solving, the concepts needed to achieve the objectives of ACG2001. Corequisite: ACG 2001.

ACG2011
Principles of Accounting 2
3.00 credits
Accounting for owners' equity with emphasis on corporate financial statements. Other topics include plant assets, intangible assets, current and long-term liabilities. ACG 2001 and 2011 can be substituted for ACG 2021. Prerequisite: ACG 2001; corequisite: ACG 2011L.

ACG2011L
Principles of Accounting 2 Lab
1.00 credits
Students will use personal computer software and financial accounting applications to analyze accounting records, prepare financial statements, and compile EXCEL spreadsheets. This course will reinforce, with tutorial help and problem-solving, the concepts needed to achieve the objectives of ACG2011. Corequisite: ACG 2011

ACG2021
Financial Accounting
3.00 credits
An introduction to financial accounting concepts and analysis with emphasis on corporate financial statements and determination of income. Corequisite: ACG 2021L.

ACG2021L
Financial Accounting Lab
1.00 credits
The student will use computer software and financial accounting applications to analyze accounting records and prepare financial statements. The student will learn, with tutorial help and problem-solving, the concepts needed to achieve the objectives of ACG2021. Corequisite: ACG2021. May be repeated for credit.

ACG2031
Accounting Theory
3.00 credits
Designed primarily for the transferring accounting major, the course covers current topics in both financial and managerial accounting. It exposes the student to a computerized accounting system. It also familiarizes the student with current accounting literature and includes a review of the preparation and analysis of financial statements. Prerequisites: ACG 2071.

ACG2071
Managerial Accounting
3.00 credits
Managerial Accounting focuses on the accounting information needs of the various levels of internal management within an organization. Internal responsibility is directed at three major areas of management responsibility: cost determination, planning and control, and long-term decision-making. Prerequisite: ACG 2011 and ACG 2001 or ACG 2021; corequisite: ACG 2071L.

ACG2071L
Managerial Accounting Lab
1.00 credits
Students will learn to interpret and solve problems related to the managerial accounting field. Additional support will be provided to students in order

to achieve the objectives of ACG2071 Prerequisite: ACG2001 , ACG2021L , ACG2021, ACG2011; corequisite: ACG2071.

ACG2450
Microcomputers in Accounting
1.00 - 3.00 credits
Accounting application of electronic data processing including the preparation, interpretation, and use of computer information in financial decision making. Pre-/ Co-requisite: ACG 2001 or ACG 2021.

ACG2630
Auditing
3.00 credits
Fundamental principles of audit practice and procedure including the verification of balance sheets and income statement items, the preparation of audit working papers, and the compilation of audit reports. The course includes short problems and audit of accounting records. Prerequisite: ACG 2071.

ACG3103
Intermediate Financial Accounting I
3.00 credits
Theory and methodology underlying financial reporting, including the FASB's conceptual framework, the accounting process, financial statements, accounting changes, present value applications, and current assets. Prerequisite:ACG 2071, MAC 2233, QMB 2100.

ACG3113
Intermediate Financial Accounting II
3.00 credits
Continuation of ACG 3103. Particular emphasis on analysis of balance sheet accounts through problem solving. Provides students with a more in-depth knowledge of Generally Accepted Accounting Principles (GAAP), including the advance student of ling-term assets, current and long-term liabilities and equities. Prerequisite: ACG 3103.

ACG3343
Cost Accounting and Controls
3.00 credits
Preparation of accounting information for use in management decision making process. Contains information on budgeting, standard costing, direct costing, performance evaluation, and use of accounting information. Prerequisite: ACG 2701.

ACG4401
Accounting Information Systems
3.00 credits
This is an information systems course for accounting students, and not a traditional accounting course, nor a traditional MIS course.The course aims to provide students with a broad conceptual knowledge of accounting information systems, the need for and control of accounting information systems, current topics in accounting information systems, and discussions of specific transaction-cycle based accounting information systems. The course seeks to examine the linkages between information systems and accounting, and it also provides an overview of how to store, retrieve, analyze, and control data using information systems. Prerequisites: ACG 3113 and ACG 3343. Students must pass course with a grade of "C" or higher.

ACG4632
Auditing
3.00 credits
This course provides a sound conceptual foundation of basic auditing process from the perspective of the public accounting profession.Professional standards, ethics, legal responsibilities, and utilization of technology are addressed. Principles and procedures of internal and public auditing are discussed, including professional standards, ethics, legal responsibilities, and the utilization of technology.

TAX2000
Income Tax
3.00 credits
Federal income tax fundamentals with emphasis on individual returns. Topics considered include gross income, capital gains and losses, deductions and exemptions, and tax credits.

TAX2002
Taxation Practices and Procedures
3.00 credits
This course will cover Internal Revenue Service taxation practices and procedures. Topics covered will convey knowledge of IRS rules and penalties, rules for representing taxpayers before the IRS and in the courts, rules and requirements associated with the tax return filing process and records maintenance rules and basic tax research skills.

TAX2010
Business Taxes & Returns
3.00 credits
A practical course on the various tax reports and forms required in an accounting office. Topics include payroll deposits, payroll returns, corporate tax return, annual report, tangible and intangible tax returns, sales taxes, employment forms and licenses.

TAX2021
Taxation of Business Organizations
3.00 credits
This course will cover federal income taxation of corporations, S Corporations, limited liability companies and partnerships. Topics covered include determining the tax consequences of income, expenses, distributions, redemptions and liquidations for business entities. Practical application of the tax law will be emphasized along with analysis of tax procedures.

TAX2401
Tax of Estates, Gifts and Trusts
3.00 credits
This course covers definitions and operations of various fiduciary forms of wealth transfer including but not limited to fiduciary accounting principles and

concepts; record keeping requirements; and various tax reporting requirements, forms and calculations.

TAX4001
Federal Income Tax I
3.00 credits
A survey of federal income tax with emphasis of taxation of individuals and the ethics of income tax accounting. Students will gain the basic theory, concepts, practice and methods of determining the taxable income and tax liabilities. Prerequisite: ACG 3103

TAX4011
Federal Income Tax 2
3.00 credits
A survey of federal income tax with emphasis of taxation of business entities and the ethics of income tax accounting, student of the basic theory, concepts, practice and methods of determining the taxable income and tax liabilities. Prerequisite:TAX 4001.

Aeronautical Science

ASC1210
Aviation Meteorology
3.00 credits
This is a core aviation course. The student will be prepared to understand weather and environmental issues in commercial aviation. Topics covered will be atmospheric phenomena relating to aircraft operations, the analysis and use of weather data as presented by the U.S. National Weather Service. Prerequisite: ATT 1100 or equivalent; corequisite: ATT 2110 or equivalent.

ASC1550
Aerodynamics
3.00 credits
This is a basic course in aerodynamics. Students will analyze the physics of flight and the application of basic aerodynamics to both airframe and power plant as preparation for the requirements of commercial aviation.

ASC1610
Aircraft Engines and Structure Theory
3.00 credits
This is a foundation course in aircraft engines and structure. Students will learn the elements of aircraft engines, engine theory, construction, systems, operating procedures, performance diagnosis, and aircraft structures.

ASC2320
Aviation Laws and Regulations
3.00 credits
Insight pertinent to federal governing bodies, and current local, federal and international laws forming the present structure of aviation law.

ASC2470
Physiology/Psychology of Flight
3.00 credits
This is an introductory course in the physiology and psychology of flight. Students will learn aero-medical facts of significance to pilots, including causes, symptoms, prevention and emergency treatment of ailments common to the aviation environment through a basic understanding of a person's normal functioning. Cabin pressurization, communications, decompression sickness, hyperventilation, hypoxia, self-imposed stresses, spatial disorientation and vision are examined.

ASC2670
Aircraft Systems
3.00 credits
As preparation for commercial aviation requirements, this course is concerned with a detailed study of aircraft systems, their various sources of basic power and the functional application of mechanisms operated by these systems. Prerequisite: ASC 1610.

ATF1601L
Flight Orientation/Simulator Lab
1.00 credits
This course will provide the student with an introduction to the environment of operating an aircraft from a pilot's point of view. It is designed to provide this knowledge to those students such as Air Traffic Controllers and Aviation Administration Students who have no piloting experience.

ATF2210
Commercial Pilot Flight
3.00 credits
This course provides pilot training required to allow the student to safely conduct flight as a Commercial Pilot. The training will be conducted in accordance with FAR Part 141 and in concert with stages 5 and 6 of the Jeppesen Sanderson Instrument/Commercial Syllabus. Upon satisfactory completion of this course, the FAA written exam, and FAA practical exam the student will receive an FAA Commercial Rating. Minimum approved FAA Part 141 course hours include 120 hours of flight, any additional training required beyond the FAA minimum is the financial responsibility of the student. Prerequisites: FAA Instrument Rating; Corequisite: ATT 2110.

ATF2210L
Commercial Pilot Flight Accelerated
3.00 credits
This accelerated course of instruction provides training required to allow the student to safely conduct flight as a Commercial Pilot. This course is expected to be completed in less than 4-months. The training will be conducted in accordance with Codes of Federal Regulations (CFR) Part 141. This training will be completed utilizing the Jeppesen Sanderson Instrument/Commercial Syllabus. Upon satisfactory completion of this course, the FAA knowledge test, and FAA practical test the student will be awarded an FAA Commercial Pilot certificate. A 1st Class Medical Certificate with Instrument Rating are required. Minimum approved FAA CFR Part 141 course hours include 120 hours of flight.

ATF2305
Instrument Pilot Flight
3.00 credits
This course provides the flight training required to safely conduct flights as an instrument rated pilot. The training is conducted in accordance with FAR Part

141 as outlined in stages 1 through 4 of the Jeppesen Sanderson Instrument/ Commercial Syllabus. Upon satisfactory completion of this course and the Federal Aviation Administration (FAA) knowledge and practical exams, the applicant will receive an FAA instrument rating. Minimum approved FAA Part 141 course hours include 35 hours of flight. Prerequisites: FAA Private Pilot Certificate; Corequisites: ATT 2120.

ATF2305L
Instrument Pilot Flight Accelerated
3.00 credits
This accelerated course provides the flight training required to safely conduct flights as an instrument rated pilot. This course is to be completed in less than 16-weeks. The training is conducted in accordance with Codes of Federal Regulations (CFR) Part 141 of the Federal Aviation Regulations as outlined in the Jeppesen Sanderson Instrument/Commercial Syllabus. Upon satisfactory completion of this course and the Federal Aviation Administration (FAA) knowledge test and practical test, the applicant will receive an FAA Instrument Rating. Minimum approved FAA CFR Part 141 course hours include 35 hours of flight. Prerequisites: FAA Private Pilot Certificate; corequisites: ATT 2120; current FAA 3rd Class Medical (1st Class preferred).

ATF2400
Multi-Engine Pilot Flight (Multi-Engine Land - MEL)
1.00 credits
This course provides the flight training required to prepare the student to safely conduct flight as a Multi-Engine Pilot. Upon satisfactory completion of this course, and the FAA oral and practical exams, the student will receive a Federal Aviation Administration Multi-Engine Rating. This course includes 15 hours of flight. Prerequisites: FAA Private Pilot Certificate and ATT2133.

ATF2501
Certified Flight Instructor-Flight Training (CFI)
1.00 credits
This course provides flight training for the student to gain the aeronautical experience required under FAA Regulations for the Certified Flight Instructor – Airplane rating. This includes developing the proficiency to instruct and analyze the performance of private and commercial flight maneuvers from the right seat of a training aircraft. Prerequisites: FAA Commercial Certificate with an Instrument Rating or ATP and ATT2131.

ATF2501L
Flight Instructor-Laboratory
1.00 credits
Provides the student with internship teaching experience based upon the principles of flight instruction learned in ATT 2131 and ATF 2501. Students will learn to develop lesson plans and how to communicate effectively using instructional materials Prerequisite: ATF 2300; Corequisite: ATT 2131, ATF 2501.

ATT1100
Private Pilot Theory
3.00 credits
This course introduces basic subjects pertaining to pilot knowledge including: basic aircraft systems, aircraft operation and performance, aerodynamic principles, human factors, and aeronautical decision making. This Course can be instructed as Part 61 or Part 141.

ATT2110
Commercial Pilot Theory 3
3.00 credits
This 35-hour course provides students with the aeronautical knowledge required to act as Commercial Pilot. Students will prepare for the FAA Commercial Written Exam. Private Pilot Certificate with Instrument Rating required. Prerequisite: ATF 2305.

ATT2120
Instruments Pilot Theory
4.00 credits
This 30-hour course introduces basic theories of instrument pilot operations to prepare students for the FAA Instrument Written Exam. Students will acquire aeronautical knowledge required to act as an Instrument rated Pilot. It will prepare the students for the FAA Instrument Written Exam. Private Pilot Certificate required.

ATT2131
Flight Instructor Theory
3.00 credits
Provides the student ground instruction to obtain the necessary aeronautical knowledge, to meet the FAA written standards for the Certified Flight Instructors Certificate. Preparation for the written exam is included in the course content. Prerequisite: ATF 2305.

ATT2133
Multi-Engine Pilot Theory
2.00 credits
This course introduces basic theories of multi-engine pilot operations to prepare students for the FAA Multi-Engine oral and practical exams. Students will acquire aeronautical knowledge required to act as a multi-engine rated pilot.

ATT2660
Regional Airline Operations
3.00 credits
This course provides theoretical instruction and practical experience in flight planning inclusive of navigation, weather, fuel management, flight and communication procedures, aircraft performance, crew coordination and simulator procedures. Utilizing flight systems automated panels, the course additionally provides practical instruction in the operation of aircraft systems. Prerequisites: ASC 1610, ATT 2110, 2120.

ATT2820
Air Traffic Control
3.00 credits
The basic elements of air traffic control operations, providing the necessary foundation for successful completion of the Air Traffic Control Basic Certification Examination. Prerequisite: sophomore standing in major program.

ATT2821
Air Traffic Control (ATC) Radar
3.00 credits
This course will provide the student with a fundamental knowledge of air traffic control practices, policies and procedures as they relate to the specifics of the controller function in an air traffic radar operating environment, with air traffic controllers utilizing the radar for traffic separation. The liberal use of the figures and example phraseology assist the student in achieving an overall use of understanding of the air traffic control system. A radar air traffic control simulator is utilized to provide realistic training exercises for the students. Prerequisite: ASC1210.

ATT2822
VFR Tower Operations
3.00 credits
This course expands the knowledge attained from ATT 2820, and is designed to further develop the aviation students skill in the ATC environment. Emphasis is placed on the duties and responsibilities of operational positions in local, ground, flight data, and coordination. Students will also learn the FAA regulations which govern flight under visual conditions. Optimum use of the Hughes Virtual Tower incorporated into this course. Prerequisite: ATT 2820.

ATT2823
Air Traffic Control (ATC) NON-Radar
3.00 credits
In this course, future air traffic controllers will acquire an understanding of air traffic control practices, policies and procedures and their application in a non-radar air traffic environment. Throughout this course, (Non-Radar Procedures) appropriate real-life examples are used to illustrate the reasoning behind procedures used by air traffic controllers utilizing the non-radar methods. The liberal use of figures and example phraseology is used to assist the student in achieving an overall understanding of the air traffic control system. Prerequisites: ATT 2820, ASC 1210.

AVM1010
Aviation Industry Operation
3.00 credits
The course provides insight into the development and present status of aircraft and air transportation, governmental organizations, controls and regulations, and career opportunities in the field.

AVM1022
Flight Operations
3.00 credits
An investigation of the occupational duties, responsibilities, and physical facilities required by the positions of pilot, co-pilot, flight engineer, dispatcher and flight attendant.

AVM1062
Aviation Career Planning
1.00 credits
This course provides direction and guidance in career planning for all aviation students. Topics of discussion will include the job search education and training requirements, resume writing, business etiquette, interview skills and follow-up techniques.

AVM1121
Hazardous Materials/Dangerous Goods
3.00 credits
This course is designed to provide the student with knowledge of dangerous goods/hazardous materials and their effect in air transportation and logistics. The students will be conversant in hazardous material regulations for cargo and passenger transportation. The course will encompass the identification, labeling, packaging and handling of 9 types of dangerous goods in air transportation and general logistics. Prerequisite: AVM 2120.

AVM1160
Aviation Maintenance Programs and Inspections
3.00 credits
This course provides an in-depth study of aircraft inspection programs and maintenance scheduling procedures. Students will learn national and international regulations governing aircraft inspection, maintenance evaluation, and the required procedures to update airline and governmental maintenance technical manuals.

AVM1161
Aircraft Performance Measures and Maintenance Requirements
3.00 credits
Students will learn aircraft performance measures and maintenance requirements for airplanes powered by reciprocating, turboprop, and/or jet turbine and turbofan engines. Topics include stability and control, weight and balance, performance charts and graphs, and takeoff and cruise control, airplane performance characteristics, from which they will extract data that maximizes performance.

AVM1162
Maintenance Repair and Overhaul (MRO) Interactions with Commercial Airline Operations
3.00 credits
Students will learn the Maintenance Repair and Overhaul (MRO) Procedures in Commercial Airline Operations. Topics include, airline maintenance operations, engineering, maintenance, repair of structures, systems, and aircraft components. In addition, students will explore MRO financing, domestic and offshore operations, regulatory requirements, logistics, supply chain support, human resources and industry oversight.

AVM1163
Policies and Procedures for Commercial Airlines Maintenance Programs
3.00 credits
Students will learn the maintenance policies and programs for commercial airlines. Concepts of Maintenance Steering Group (MSG) and Reliability Centered

Maintenance (RCM) programs, Maintenance Control by Reliability Methods (MCEM) program, and Operational Availability (OA) for Commercial Aircraft will be discussed.

AVM1164
Logistics and Maintenance Programs for Commercial Airlines
3.00 credits
This course focuses on the concepts and application of logistics and supply chain management utilized within the aviation maintenance industry to increase efficiency in production and maintenance. Students will learn the logistics support from Maintenance Repair Operators and Original Equipment Manufacturers in aviation maintenance operations.

AVM1440
Aviation/Airport Security
3.00 credits
This course will provide the student with knowledge of the issues and strategies that are used to protect the national airspace system, airports and airlines from security threats. The various types of threats and responses to those threats will be covered. In addition, the legal requirements planning issues, physical equipment and facility requirements and personnel issues will also be discussed.

AVM1949
Co-op Work Experience 1: AVI
3.00 credits
This is a course designed to provide training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval. Prerequisite: 2.0 minimum GPA, approval of Co-op Program Director, minimum of 6 credits in field or work approved experience.

AVM2120
Air Cargo
3.00 credits
The course develops a comprehensive grasp of the characteristics and evolution of air cargo, its impact on United States industry, inherent problems and future development.

AVM2410
Principles of Airport Management
3.00 credits
This course provides the student with a broad background in the Principles of Airport Management. This includes the airport system and its history, planning, land use, community relation issues, financial issues, capacity and growth, operations, organization and administration.

AVM2431
Customer Service Agent
3.00 credits
Covers the generic skills needed for any airline position involving regular contact with the traveling public. Includes human relations, personal appearance enhancement, etiquette, conflict management, speech skills, and the acquisition of attributes that would promote a proper professional image.

AVM2441
Aviation Safety & Human Factors
3.00 credits
This course will provide the student with an understanding of human factors and safety concepts as they apply to aviation. There will be an evaluation of aircraft accidents and their causal factors. Accident prevention measures are stressed as integral parts of an aviation safety program.

AVM2450
Airport Facilities/Financial Planning
3.00 credits
This course provides the student with an in depth knowledge of the techniques and strategies of the airport master plan in planning airport facilities and financial resources. Forecasting, demand analysis, sources of funding, planning requirements, environmental issues and requirements and compliance issues will be discussed. Also implementation and control issues, financial management, budgets, costs and revenues as well as airport economics will be discussed. Prerequisite: AVM 2410.

AVM2510
Airline Management
3.00 credits
An insight relative to the business policies and the functions of management in airline operations. Course involves various internal managerial facets and the impact of external regulatory and economic implications.

AVM2515
Airline Marketing
3.00 credits
A differentiation of the functions of marketing in airline operations; market research, demand analysis, advertising and promotion, sales, traffic, and the theory of price determination.

AVM2949
Co-op Work Experience 2: AVI
3.00 credits
This is a course designed to continue training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval. Prerequisite: 2.0 minimum GPA, approval of Co-op Program Director, completion of AVM 1949.

Agriculture & Related Technologies

ATE1110
Animal Anatomy
3.00 credits
This course explores the physical and functional phenomena that interact to sustain life in animals. The student will learn the relationships of all of the systems in domestic animals, such as

the osseous apparatus, the respiratory, digestive, genitourinary, endocrine, and nervous systems. The student will also be introduced to the descriptive and topographical terms needed to communicate with the professional staff. Prerequisites: CHM 1033, 1033L, ENC 1101; corequisites: ATE 1110L, 1211, 1650L.

ATE1110L
Animal Anatomy & Physiology Lab
1.00 credits
This course will complete the coverage and understanding of the physiological and anatomical relationships required for further development as a veterinary technician. This course will correlate with lecture material learned in the Animal anatomy and Animal Physiology lecture courses. Anatomical dissection, necropsy, examination of live animals will be used as well as the study of radiographs, skeleton models and histological sections.

ATE1211
Animal Physiology
3.00 credits
This course is designed to explore the terminology related to animal physiology, in addition to all aspects of the functions of systems in small and large animals.

ATE1630
Pharmacology for Veterinary Technicians
2.00 credits
This introductory course reviews drug classifications and office procedures/management. Students will learn methods of calculating appropriate drug dosage, routes of administration, and evaluation of drug efficacy as well as office procedures used in veterinary hospital management.

ATE1650L
Introduction to Clinical Practice 1
1.00 credits
This introductory course is designed to acquaint the student with skills associated with veterinary clinical practice. Students will learn basic office, laboratory and nursing skills, including hospital/office management, restraint, history taking, examination room techniques, administration of medication, basic parasitology, and basic clinical pathology procedures.

ATE1940
Veterinary Clinical Experience 1
3.00 credits
This entry clinical course provides supervised clinical experience in a veterinary facility. Students will learn and reinforce competencies in clinical laboratory procedures, venipuncture techniques, physical examination of patients, administration of intramuscular and subcutaneous injections and exam room protocol. A.S. degree only.

ATE1941
Veterinary Clinical Experience 2
3.00 credits
This course consists of supervised clinical experience in the veterinary workplace. Students will learn to enhance the competencies from ATE 1940 Veterinary Clinical Experience 1 while adding application of classroom knowledge in pharmacology, clinical laboratory procedures, and radiology. A.S degree credit only.

ATE2050L
Animal Nursing & Medicine Laboratory 2
2.00 credits
The student will practice training a dog, and applying corrections for common behavioral problems. Clinical training in a small animal necropsy is also presented. Prerequisites: ATE 1110, 2631, 2655L; corequisite: ATE 2612.

ATE2611
Animal Medicine 1
3.00 credits
This course is designed to acquaint the student with anesthesiology, asepsis and general surgical nursing care, essentials in pharmacy and pharmacology, and concepts in microbiology, virology and immunology. Prerequisites: ATE 1110, 1211; corequisites: ATE 2661, 2942, 2631, 2655L.

ATE2612
Small Animal Nursing 2
3.00 credits
A study of the basic concepts of nutrition, obstetric, and pediatric care, as well as the important aspects regarding zoonotic diseases, public health and animal behavior. The student will also be introduced to alternative medicine, including holistic concepts, homeopathic, acupuncture, chiropractic and other emerging specialties. Prerequisites: ATE 1110, 2611, 2631, 2655L; corequisite: ATE 2050L.

ATE2614
Animal Medicine 2
3.00 credits
This course will explore general pathology, causes and nature of disease, toxicology, and an overview of pathologies of major systems, as well as immunity disease prevention, common vaccinations and diseases relating to small animals. Prerequisites: ATE 1110, 2611.

ATE2631
Small Animal Nursing 1
3.00 credits
The student will master the technical skills of medicating animals and the taking and processing of radiographs. This course also covers general care, including grooming and bathing, feeding and watering, nail trimming, ear cleaning, anal sac expression, and determination of vital signs. Prerequisites: ATE 1110, 1211; corequisites: ATE 2611, 2655L.

ATE2636
Large Animal Clinic & Nursing Skills
2.00 credits
This course is designed to acquaint the student with the fundamentals of large animal herd management, reproductive physiology and lactation physiology. Aspects of equine, bovine, ovine and porcine husbandry will be included. Prerequisites: ATE 1110, 1211 corequisite; ATE 2636L.

ATE2636L
Large Animal Clinic & Nursing Skills Laboratory
1.00 credits
This course is designed to acquaint the student with the fundamentals of large animal husbandry, herd health management, preventive medicine, animal restraint and nutrition as it relates to the bovine, equine, porcine and caprine species. Techniques discussed in the Large Animal Clinic and Nursing skills course such as venipuncture, injections and administration of other oral medications will be reviewed and demonstrated. One laboratory session will be devoted to poultry science.

ATE2638
Animal Lab Procedures 1
3.00 credits
This course is designed to introduce the veterinary technician to common parasites and their life cycles seen in routine veterinary practice. Also, hematology and the kinetics of the hematopoietic system are discussed with emphasis on normal blood smears and common changes seen during disease stages of the domestic animals. Prerequisites: ATE1110, 1211; corequisite: ATE 2638L.

ATE2638L
Animal Lab Procedures 1 Laboratory
2.00 credits
This course is designed to acquaint the student with clinical laboratory procedures covered in the Animal Laboratory Procedures 1 course. Areas of emphasis include hematology, coagulation and parasitology as well as general laboratory etiquette. Corequisite: ATE 2638.

ATE2639
Animal Lab Procedures 2
3.00 credits
This course serves as a continuation of Animal Laboratory Procedures 1 and covers immunology, liver function and diagnostic testing for liver abnormalities, kidney function and testing used in disease states, urinalysis, pancreatic evaluation; normal and abnormal exfoliactive cytology; and the evaluation of endocrine disorders. It also will include principles of serological testing and microbiological methods and protocols. Prerequisites: ATE 2638, 2638L; corequisite: ATE 2639L.

ATE2639L
Animal Lab Procedures 2 Laboratory
2.00 credits
This course provides experience in the practical applications discussed in Animal Laboratory procedures 2. It also will include principles of serological testing and microbiological methods and protocols as well as dentistry for the veterinary technician. Prerequisites: ATE 2638, 2638L; corequisite: ATE 2639.

ATE2652L
Introduction to Clinical Practice 2
1.00 credits
The clinical application of basic veterinary radiology and surgical nursing skills will be the primary focus of this practicum. The student will demonstrate skills under supervised instruction. Prerequisite: ATE 1110, 1650L.

ATE2655L
Animal Nursing & Medicine Laboratory 1
2.00 credits
This course is designed to acquaint the student with exam room and restraining techniques, anesthesia and surgical protocols and diagnostic imaging procedures used in veterinary hospitals.

ATE2661
Large Animal Diseases
1.00 credits
This course is designed to acquaint the student with the fundamentals of preventative medicine and with the common disease seen in the large animal species. Aspects of equine, bovine, ovine and porcine diseases and common treatments will be emphasized. Prerequisites: ATE 1110, 2636, 2636L; corequisite: ATE 2611.

ATE2671C
Lab Animal Medicine
2.00 credits
This foundation course provides instruction on laboratory animal care. Students will learn the technical aspects of laboratory animal care, including restraint and handling, common diseases and nutrition. The animals studied include rabbits, rats, mice, guinea pigs, hamsters and primates.

ATE2710
Animal Emergency Medicine
2.00 credits
This course is designed to acquaint the student with fundamentals of emergency veterinary medicine, including veterinary first aid, toxicology and specialized medical techniques and procedures. Prerequisites: ATE 1110, 1211; corequisites: ATE 2611, 2631, 2655L.

ATE2722C
Avian & Exotic Pet Medicine
2.00 credits
This course is designed to acquaint students with the medical care associated with exotic animal and avians. Students will learn types of species that may be encountered in a practice and their associated care techniques.

ATE2942
Veterinary Clinical Experience 3
4.00 credits
This course provides clinical experience to the student, under the supervision of a veterinarian. Students will enhance the competencies learned in ATE 1940 - Clinical Experience 1 and ATE 1941 - Veterinary Clinical Experience 2 and master skills associated with advanced veterinary technology practice. Prerequisite ATE 1941.

HOS1010
Horticulture 1
3.00 credits
This is an introductory course on the principles of horticulture. Students will learn plant structure and function, plant propagation, plant nutrients and fertilizers,

potting media, soils, pruning, and plant pests. A survey of various fields in ornamental horticulture will also be covered.

HOS1011
Horticulture 2
3.00 credits
The student will learn the maintenance and management aspects of horticulture business (nursery facility or landscape maintenance and design) including irrigation systems, plant growing facilities, plant propagation equipment, and landscape maintenance equipment. Hands-on practice in programming of plant production crops and nursery design in our nursery. Prerequisite: HOS1010. A.S. degree only.

HOS2005
Hydroponic Systems
3.00 credits
This course will provide an overview of the different types of hydroponic systems. Students will learn about set-up requirements, maintenance, nutrient formulations, and growing plants in a soilless culture. The course will emphasize knowledge and skills required to run small hydroponic systems. lecture)

IPM2112
Principles of Entomology
3.00 credits
This is an introductory course on the principles of entomology. Students will learn to identify characteristics of arthropods, the insect orders, and the growth cycle of insects. Students will also address insect pest's specific to South Florida and methods to responsibly manage plant pests.

IPM2301
Pesticide Applications
3.00 credits
Students will learn government regulations with regards to pesticide mixing and application, and safety equipment. Preparation for the restricted use applicators license exam will be covered.

IPM2635
Introduction to Plant Pathology
3.00 credits
The students will learn to identify diseases that affect plants and management practices for different types of plant diseases. Environmental factors contributing to a plant's susceptibility to a particular disease will also be discussed. Methods of prevention, eradication, and control will be given for each specific disease.

LDE2000
Planting Design 1
4.00 credits
Basic principles of design, on-the-job sketching and plan presentation as used by nurseries. Prerequisite: ORH 1510.

LDE2310
Irrigation Design & Maintenance
3.00 credits
The students will learn the design, maintenance, and installation of nursery and landscape irrigation systems. All types of nursery systems will be covered including field, shade house, and greenhouse. Both sprinkle and low volume drip systems will be surveyed for appropriateness in nursery and landscape uses. Includes occasional weekend hands-on activities. A.S. degree only.

ORH1251
Nursery Practices 1
3.00 credits
The student will learn the techniques and practices in commercial production of ornamental plants. Emphasis on types of nurseries. Prerequisite: HOS1010. A.S. degree only.

ORH1510
Landscape Plant Identification 1
3.00 credits
Students will learn the identification and usage of plants used in the horticultural trade in South Florida. Subject matter includes trees, shrubs, and flowering plants for both interior and outdoor use.

ORH2932
Special Topics in Landscaping
1.00 credits
Special topics in landscaping offers horticulture students the opportunity of enriching their education with aspects of the field not covered in the A.S. program. Topics will be offered in the areas of irrigation, appropriate landscaping, recent innovations, pests and pesticides, etc.

ORH2949
Landscape Technology Internship
3.00 credits
The internship will provide students with hands-on work experience in horticulture. Landscape, or related technology industries. Students will learn employability skills, and the specific skills and safety requirements necessary for effective work in this environment.

American Sign Language and ASL Interpretation

ASL1140C
American Sign Language 1
4.00 credits
This course provides introductory information on the linguistics of American Sign Language and approximately 500 sign concepts. Course includes lecture, discussion and lab practice.

ASL1150C
American Sign Language 2
4.00 credits
This course provides continued instruction in the linguistic principles of American Sign Language and an additional 500 sign concepts. Course includes lecture, discussion and lab practice which is conducted in ASL. Prerequisite: ASL 1140C.

ASL2160C
American Sign Language 3
4.00 credits
This course provides linguistic principles of American Sign Language at the intermediate level and an additional 500 sign concepts. Lecture, discussion and

lab practice are included. Students have increased opportunities for interaction with members of the deaf community. Increasingly, class sessions are conducted in ASL. Prerequisite: ASL 1150C; Pre/corequisite: ASL 2210.

ASL2200C
American Sign Language 4
4.00 credits
This course provides linguistic principles of American Sign Language at the advanced level and an additional 500 sign concepts including idioms used in ASL. Lecture, discussion and lab practice are included. Class sessions are conducted predominately in ASL. Prerequisite: ASL 2160C.

ASL2210
ASL Conversational Skills
3.00 credits
This course will provide practice communication in American Sign Language (ASL). Students will use previously acquired knowledge of ASL vocabulary and linguistic principles to communicate in the language. Prerequisite: ASL 1150C or 2160C.

ASL2220
Receptive Skills Development
3.00 credits
The course will focus on increasing the student's receptive understanding of signed communications. Examples of American Sign Language (ASL) will be presented via videotapes and live interactions with deaf persons. Students will identify all the components and linguistic features of ASL and will provide appropriate English translations either in speech (paraphrasing) or in written form. Prerequisite: ASL 1150C.

ASL2400
Linguistics of American Sign Language
3.00 credits
The course is designed for persons who already have an understanding of ASL principles. Provides an overview of the various systems of manual communication used in the U.S. including PSE, Cued Speech and signed English. Prerequisite: ASL 2160C.

ASL2430
Manual alphabet Skills Development
3.00 credits
The course content focuses on acquiring both expressive and receptive skill in the manual alphabet of American Sign Language, commonly known as fingerspelling. A performance test is given at the beginning of the course to determine existing competency. Prerequisites: ASL 1140C, 1150C.

ASL2510
Deaf Culture and Community
3.00 credits
The course provides an in-depth study of the lives and experiences of deaf and hard of hearing persons and examines perceptions of belonging to a unique cultural group. Cultural characteristics are examined alongside the impact of hearing loss on one's family, friends, and employment. Multicultural issues and the impact of hearing loss are examined within various ethnic groups. Societal attitudes regarding disability in general, and hearing loss and communication difficulties in particular, are addressed.

Anthropology

ANT2000
Introduction to Anthropology
3.00 credits
In this course, students will learn the foundations of anthropology as the study of human variation in its biological, social, and cultural dimensions. Students will learn about anthropological concepts, principles, and methodologies to understand and explore past and present human behavior. They will apply the anthropological approach to analyze issues pertaining to past and contemporary cultures, and develop intellectual skills and habits to understand behavioral, social, and cultural issues from multiple disciplinary perspectives. Student learning outcomes: students will explain scientific approaches to the study of human variation and human origins, including primatology, extinct and extant human cultures, language, and ethnicity; students will explain the origins of anthropology as a foundation discipline in the social sciences that examines the nature and definition of culture; students will apply anthropological concepts, principles, and methods to the scientific study of past and present human behavior; students will explain how anthropology incorporates multidisciplinary knowledge and perspectives; and students will describe contemporary anthropological contributions.

ANT2410
Introduction to Cultural Anthropology
3.00 credits
This course focuses on the study of human organization and culture by exploring similarities and differences among a variety of cultures. Students will apply theories and methods developed by anthropologists to understand complex human behaviors revealed in the cultural expression of race, ethnicity, language, economic systems, political systems, families and kinship, marriage, gender, religion, ecology, art, transnational migration, and the globalization of the world system.

ANT2511
Introduction to Physical Anthropology
3.00 credits
This course introduces students to the origins of humanity from early primates, extinct hominins, and to modern people. Students in this course will learn the basics of evolutionary theory and genetics, investigate human evolutionary history through the fossil record, observe contemporary non-human primates, and apply this knowledge to a biocultural understanding of human variation, past and present.

Architecture

ARC1115
Architectural Communications 1
2.00 credits
Exercises in freehand drawing, sketching and linear perspective are designed to increase the student's awareness of the architectural environment. This is accomplished through a series of form studies of nature, architectural forms, and abstract elements of composition. Corequisite: IND 1020.

ARC1126C
Architectural Drawing 1
4.00 credits
This course exercises the visualization and drafting of architectural objects and construction conditions. Students will learn to draw orthographic projections, isometric and sectional drawings as an expression of architectural communication. Topics include drawing of plans, elevations, details, schedules, and sections of wood frame and masonry structures.

ARC1128
Architectural Drawing 2
4.00 credits
A simulation of an actual architectural drafting room. The instructor issues preliminary design drawings from which the student prepares working drawings. The problems presented have varied materials and structural systems, differing occupancies, etc., offering a series of new experiences in architectural drawing. Prerequisite: ARC 1126.

ARC1301
Architectural Design 1
4.00 credits
Introductory course to architectural design, its scope, methods and vocabulary interfacing graphics and design as a means towards an awareness and understanding of basic organizational principles. Design concepts analyzed through graphical representation and modeling. Pre/corequisite: ARC 1115.

ARC1302
Architectural Design 2
4.00 credits
A continuation of ARC 1301, emphasizing the application of ordering concepts, and aspects and determinants of form and space. An individual design process is developed by the student. Pre-/Co-Requisites: ARC 1126, 2701; Prerequisite: ARC 1301.

ARC1949
Co-op Work Experience 1: ARC
1-3.00 credits
This course is designed to provide training in the students' field of study through work experience. Students will learn to make connections between their internship experiences, academic coursework, and career goals. Students are graded on the basis of documentation of learning and goal achievement as reported by both student and employer. Prerequisite: Departmental Approval

ARC2053
Architectural Computer Applications
4.00 credits
Applications of software and computer languages in the fields of architecture, building construction and interior design. Corequisite: ARC2052.

ARC2056
Computer Aided Architectural Presentation
4.00 credits
This course is designed to introduce the student to the concept of three-dimensional modeling and rendering for the purpose of producing an animated architectural presentation.

ARC2171C
Computer Aided Drafting 1
4.00 credits
Computer-aided drafting as it applies in the fields of architecture and interior design using office simulation. Emphasis is on the production of computer-aided drafting of working drawings involving different types of structure. Prerequisite: ARC 1126 or 2461.

ARC2172
Computer Aided Drafting 2
4.00 credits
This course is designed for students with previous computer-aided design knowledge. Students will use both 2-dimensional and 3-dimensional CAD software to further develop their abilities to apply CAD techniques to the solution of architectural, engineering, and interior design problems. Prerequisite: ARC 2171.

ARC2180C
Introduction to 3D Building Modeling
4.00 credits
An introduction to 3D building modeling and generative drafting as it applies to the fields of architecture and interior design. Students will learn current practices in 3D building design by emphasizing the manipulation of commands used for modeling, drawing, editing, dimensioning, basic drawing management, and drawing output. Prerequisites: ARC 2172, CGS 1060, MAC 1105.

ARC2201
Theory of Architecture
3.00 credits
An introduction to the meaning of Architecture to society, the foundation theories of architecture and an exposure to the ways and means of the creative process. Prerequisite: ARC 1115.

ARC2303
Architectural Design 3
5.00 credits
Integration of the natural and built environment with physiological, functional, organizational, spatial and environmental forces. Prerequisites: ARC1302 and 2461.

ARC2304
Architectural Design 4
5.00 credits
A continuation of ARC 2303. Introduction to programming and design methods in architecture. Applications of building technology in the design process.

Overview of computer applications in design. Prerequisite: ARC 2303; pre/corequisites: ARC 2053, 2681.

ARC2312C
Introduction to Building Assembly Modeling
4.00 credits
Introduction to the principles of Building Assembly Modeling. Students will learn to explore a building as an assembly of architectural objects and subassemblies, using virtual design and construction software. In addition, students will learn part modeling, assembly modeling, generative drafting, and general representational and modeling techniques. Prerequisites: ARC 2172, CGS 1060, and MAC 1105.

ARC2461
Architectural Materials and Construction 1
4.00 credits
An introduction to basic materials and methods of building construction. Emphasis is on wood, concrete, unit masonry, and light steel construction. Laboratory projects may include working drawings interpretation, sketching construction details, or field trips to construction sites and fabricant plants. Designed primarily as the initial materials and methods course for architectural transfer students. Prerequisite: ARC 1126 or BCN 1251.

ARC2580
Architectural Structures 1
4.00 credits
A basic structural course, designed primarily for Architectural and Construction majors, covering the fundamentals of statics. Timber design emphasized. Prerequisite: MAC1114; pre-/corequisites: PHY 2053, 2053L and ARC 1126, 2461.

ARC2681
Environmental Technology
3.00 credits
An introduction to technology aspects of building design which relates to human comfort, safety, and building performance. Includes a survey of the fundamentals of water supply, waste lines, plumbing equipment, heat and air conditioning; solar applications; and electrical components and equipment in the design and construction of buildings. Prerequisite: ARC 1126.

ARC2701
History of Architecture 1
3.00 credits
This course offers a survey of architecture from ancient times through the 18th century and includes works from the Western canon. Students will examine the integration of art forms, structural elements, and ornamental designs across world civilizations, analyzing their connections to broader aspects of human development. Through this exploration, students will develop critical thinking skills and gain understanding of how architecture reflects and influences societies throughout historical periods.

ARC2702
History of Architecture 2
3.00 credits
This course provides a survey of architecture from the 19th century to the present and includes works from the Western canon and examining architectural developments. Students will analyze the integration of art forms, structural elements, and ornamental designs across civilizations, exploring their connections to human development, including art and history. Through this study, students will develop critical thinking skills and gain understanding of how architecture reflects and influences societal changes and cultural expressions throughout modern and contemporary periods. Writing intensive course.

ARC2949
Co-op Work Experience 2: ARC
3.00 credits
This is a course designed to continue training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval. Prerequisite: 2.0 minimum GPA, approval of Co-op Program Director and completion of ARC 1949.

Art

ARH1000
Art Appreciation
3.00 credits
In this course, students will develop an appreciation of and the ability to think critically about culture and be provided with the tools to understand, analyze, and discuss worksof visual art and material culture. Student learning outcomes: students will identify and describe terms, concepts, and methods used in the discipline of art history; studentswill apply terms, concepts, and methods used in the discipline of art history to works of visual art and material culture; students will identify and describe works of visual art andmaterial culture in the works' cultural context, including works from or inspired by the Western canon and other cultural traditions; students will analyze works of visual art andmaterial culture in the works' cultural context, including works from or inspired by the western canon and other cultural traditions; and students will generate an analyticalesponse to works of visual art and material culture in the works' cultural context.

ARH2050
Art History 1
3.00 credits
This course offers a survey of visual arts from prehistory to 800 C.E. and includes works from the western canon. Students will examine artistic expressions across civilizations, analyzing their connections to historical contexts and aspects of human development. Through this exploration, students will develop critical thinking skills and gain understanding of how

visual arts reflect and influence societal developments, ideas, and values throughout early history.

ARH2051
Art History 2
3.00 credits
In this course, students will embark on a world survey of the visual arts from 800 to 1850 A.D., exploring various artistic movements, styles, and cultural contexts. The course will delve into the rich and distinct artistic traditions from different regions, including works from the Western canon. Writing Intensive Course.

ARH2740
Cinema Appreciation
3.00 credits
An analysis of the cinema as an important social force and an artistic medium. Significant American, British, and foreign language films will be shown and discussed. Prerequisite: HUM 1020. Writing Intensive Course

ARH2857
Introduction to Museum Studies
3.00 credits
This is a foundation course that offers a practical introduction to the nature, context and operations of museums with the intention of providing practical examples and indicators of good practices. This course introduces students to the history and theory of museums and museum practices, museum administration, exhibition planning, museum education and museum careers. In addition to the comprehensive overview of museum studies, this course also delves into the influence of the western canon on museum curation and interpretation, providing students with a well-rounded understanding of the cultural and historical significance of the artifacts and artworks displayed in museums.

ART1201C
Basic Design
3.00 - 4.00 credits
This introductory course is designed to familiarize students with the basic elements and principles of design and to give hands-on opportunity to transform visual and experiential information into basic forms. Creative individual thinking and image making and successful problem solving both aesthetically and technically are ultimate goals.

ART1202C
Two-Dimensional Design
3.00 - 4.00 credits
This course is designed to give students an understanding of advanced concepts of two dimensional design and to give hands on opportunity to transform visual and experiential information into two-dimensional form. Creative individual thinking and image making and successful problem solving both aesthetically and technically are ultimate goals.

ART1203C
Three Dimensional Design
3.00 - 4.00 credits
This course is designed to give students an understanding of the concepts of three-dimensional design and to provide hands-on opportunity to transform visual and experiential information into three-dimensional form. Creative individual thinking and image making and successful problem solving both aesthetically and technically are ultimate goals. Self-evaluation and safety skills will also figure prominently. Prerequisite: ART 1202C.

ART1205C
Color and Composition 1
3.00 - 4.00 credits
ART 1205C is a studio art course that is focused on learning the theory and practice of color mixing and compositional arrangement. The course will examine the various interactions of color and their creative application so that the student may use color more effectively in fine arts and applied design.

ART1300C
Drawing
3.00 - 4.00 credits
Basic problems in freehand drawing, including perspective, still-life and landscape. Emphasis is on developing a sense of structure through line, form and texture.

ART1330C
Figure Drawing
3.00 - 4.00 credits
Drawing and painting from the live model with emphasis on structure, movement and expression.

ART1803C
Workshop for ART Research and Practice: Studio
6.00 credits
Small enrollment sections. Interdisciplinary, team taught, introductory studio experience in a wide variety of media. In-depth exploration of creative processes, principles of artistic integrity, and the nature of artistic meaning. Concepts in two-dimensional and three-dimensional design will be explored through studio experience.

ART2301C
Drawing 2
3.00 - 4.00 credits
In this course students will execute drawings in various media, working with the figure or from various assigned drawing problems which are more complex and incorporate other design possibilities. Assignments in drawing will go beyond the realistic or literal and will incorporate media not usually used such as painting, collage, mixed media, and found objects.

ART2302C
Advanced Drawing
3.00 - 4.00 credits
An exploration of varied approaches to drawing through studio problems. May be repeated for credit. Prerequisites: ART 1300C, 1330C.

ART2400C
Printmaking 1
3.00 - 4.00 credits
Basic techniques of printmaking including relief prints (wood cut and wood engraving), intaglio (dry point and etching) and lithography. Prerequisite: ART 1202C or 1300C.

ART2401C
Printmaking 2
3.00 - 4.00 credits
Advanced techniques in printmaking. Prerequisite: ART 2400C.

ART2406C
Advanced Printmaking
3.00 - 4.00 credits
Individualized instruction on printmaking concepts specifically oriented toward the student's aesthetic concerns. May be repeated for credit. Prerequisites: ART 2400C, 2401C.

ART2500C
Painting 1
3.00 - 4.00 credits
Studio problems in painting involving contemporary styles, techniques and materials. Prerequisite: ART 1202C or 1300C.

ART2501C
Painting 2
3.00 - 4.00 credits
Advanced techniques in painting. Prerequisite: ART 2500C.

ART2502C
Advanced Painting
3.00 - 4.00 credits
Individualized instruction in painting concepts specifically oriented to the student's aesthetic concerns. May be repeated for credit. Prerequisites: ART 2500C, 2501C.

ART2600C
Computer Art
3.00 - 4.00 credits
This course is an introduction to basic theory and skill techniques of visual communications using computers. It gives students a basic understanding of technical devices for the electronic production of visual images. Prerequisites: ART 1201C, ART 1300C.

ART2601C
Intermediate Computer Art
3.00 - 4.00 credits
An intermediate computer art course focusing on the integration of computer technology with traditional design and fine art media such as illustration, painting, printmaking and photography. Prerequisite: ART 2600C.

ART2602C
Advanced Computer Art
4.00 credits
An advanced computer art class which focuses on new and emerging computer technology utilizing multiple platforms to produce advanced computer art portfolio assignments in illustration, fine art, 2D animation and digital photography.

ART2701C
Sculpture 1
3.00 - 4.00 credits
An introduction to sculpting techniques and materials. Prerequisite: ART 1202C or 1300C.

ART2702C
Sculpture 2
3.00 - 4.00 credits
Advanced sculpturing techniques. Prerequisite: ART 2701C.

ART2703C
Advanced Sculpture
3.00 - 4.00 credits
Individualized instruction in sculptural concepts specifically oriented to the student's aesthetic concerns. May be repeated for credit. Prerequisite: ART 2701C, 2702C.

ART2750C
Ceramics 1
3.00 - 4.00 credits
Basic techniques in pottery design-forming, decorating, glazing and firing. Prerequisites: ART 1202C or 1300C.

ART2751C
Ceramics 2
3.00 - 4.00 credits
Advanced techniques in pottery design and preparation. Prerequisite: ART 2750C.

ART2771C
Advanced Ceramics
3.00 - 4.00 credits
Advanced work in ceramics. Emphasis placed on individual concepts and their application in ceramics. May be repeated for credit. Prerequisites: ART 2750C, 2751C.

ART2802C
Visual Arts Workshop
1.00 - 4.00 credits
Special Studio Topics including methods, materials and theory related to specific studio processes. Permission of department chairperson. May be repeated for credit.

ART2950
Portfolio Preparation - ART
3.00 credits
Provides students with knowledge and skills to compile a portfolio which prepares them for a college or professional career. Course content focuses on individual development through the use of varied media and styles. Emphasis is placed on selection, evaluation, and presentation. May be repeated for credit.

Banking

BAN1004
Principles of Banking
3.00 credits
In this course the students will learn the foundation, structure and function of financial systems. The course plan includes the review of the role of banks as businesses and their impact on the economy. The students will receive an overview of the main entities that comprise the financial system: financial intermediaries, investments and financial markets. The students will be able to describe the risk infrastructure of financial institutions, the regulatory environment, and the responsibilities inherent in

complying with regulatory requirements associated with safety and soundness of banks.

BAN1231
Commercial Lending
3.00 credits
This course provides an increased awareness of the credit underwriting process. It provides a comprehensive foundation to the lending process including technical and interpretative analysis of financial information from liquidity, solvency, ratio and cash flow analysis to the basics for the completion of a credit approval memorandum. Students will learn the concepts of qualitative analysis including the assessment of industry risk, market risk and management risk. The course provides an understanding of the role of loan policy and the need to summarize the borrowers various risks into an appropriate credit risk rating. Prerequisites: BAN2210

BAN2210
Analyzing Financial Statements
3.00 credits
In this course the students will learn the framework and resources available to analyze financial statements and to assess a company's operation and future performance. The course covers the critical objectives with the assessment of business performance such as: the relationship between the company's business and financial strategy, their financial statements, ratio, profitability, balance sheet and cash flow analysis. The course plan includes the use of financial and accounting information to make lending/credit and investment decisions. The course is targeted to a wide range of students including those pursuing careers in banking, general management, investment banking, financial analysis and consulting. Pre-requisites: ACG2021

BAN2211
Applied Financial Statement Analysis
3.00 credits
This course provides a comprehensive analysis of business strategy, operating performance, financial condition and cash flow strength. The student will learn basic and advanced financial concepts impacting the viability of a business, including accounting rules, methods of credit analysis, assessment of financial ratios, historical financial analysis, cash flow and financial forecasting. Pre-requisites: BAN2210

BAN2511
Marketing for Financial Service
3.00 credits
Marketing of financial services is a specialized segment of marketing. It is highly competitive, making the process of selling for bankers a highly specialized and challenging endeavor. Changing market conditions, deregulation, the emergence of new competitors from within and external to the banking industry and the rapid integration of new technologies are some of the challenges bankers encounter. It covers the aspects of a consultative selling approach with emphasis on planning, implementing and fostering a long term advisory relationship with clients. The students will learn to become proficient on how to prepare for a successful sales presentation and closing.

Biochemistry

BCH3023
Introductory Biochemistry
3.00 credits
This course surveys the fundamental components of biochemistry. In this course, students will learn concepts such as the structure and function of amino acids, proteins, carbohydrates, lipids, and nucleic acids, together with discussions of oxidative metabolism and regulation. Prerequisites: BSC 2010/L, 2011/L, CHM 2200 or CHM 2211/L. Corequisites: BCH 3023L.

BCH3023L
Introductory Biochemistry Laboratory
2.00 credits
This laboratory course complements the lecture corequisite BCH 3023, which involves the study of the fundamental components of biochemistry. In this laboratory course students will learn and will be provided with hands-on experiences with the concepts addressed in the lecture course. Prerequisites: BSC 2010/L, 2011/L, CHM 2200 or CHM 2211/L. Corequisites: BCH 3023.

Biological Science

BOT1010
Botany
3.00 credits
A survey of the plant kingdom based on a detailed study of the morphology, anatomy and physiology of selected representative specimens. Corequisite: BOT 1010L.

BOT1010L
Botany Laboratory
1.00 credits
Laboratory for BOT 1010. Corequisite: BOT 1010.

BOT2150C
Native Plant Identification and Usage in South Florida
3.00 credits
Plants native to South Florida are identified and presented by their typical ecological community. Emphasis is primarily upon pineland, tropical hammock, mangrove and costal, Everglades marsh, and cypress swamp communities. Plants appropriate for use in urban landscapes as well as in ecological restorations are covered. A combination lecture and lab course.

BOT3015
Survey of Plant Diversity
3.00 credits
This course explores the plant kingdom and gives emphasis on structure, function and genetics of plants. Students will learn the evolutionary relationships, natural history, ecological adaptations,

physiology, morphology and reproductive biology of gymnosperms and angiosperms. Prerequisites: BSC 2010, 2010L, 2011, 2011L. Corequisite: BOT 3015L.

BOT3015L
Survey of Plant Diversity Laboratory
1.00 credits
This course is designed to provide the necessary laboratory experiments and dissection exercises to supplement/ accompany the BOT 3015 Survey of Plant Diversity lecture course. Students will learn about the plant kingdom and with emphasis on structure, function and genetics of plants. Dissections and laboratory exercises are designed to explore the fundamental cell and tissue structures of both vascular and non-vascular plants. Prerequisites: BSC2010, 2010L, 2011, 2011L. Corequisite: BOT 3015.

BSC1005
General Education Biology
3.00 credits
This course applies the scientific method to critically examine and explain the natural world including but not limited to cells, organisms, genetics, evolution, ecology, and behavior. Student learning outcomes: students will evaluate data regarding validity; students will read and interpret a variety of scientific data; students will describe the natural world; and students will articulate and practice the scientific method.

BSC1005L
General Education Biology Laboratory
1.00 credits
An optional one-credit lab to provide students with experience in the scientific process. This course applies the scientific method to critically examine and explain the natural world including but not limited to cells, organisms, genetics, evolution, ecology, and behavior.

BSC1084
Functional Human Anatomy
3.00 credits
Basic human anatomy for the students in allied health and mortuary science programs. Includes the dynamics of gross and functional anatomy, terminology, body orientation, and systematic relationships.

BSC2010
Principles of Biology
3.00 credits
In this course students will apply the scientific method to critically examine and explain the natural world. This course will cover molecular biology, cellular biology, genetics, metabolism, and replication. Student learning outcomes: students will demonstrate scientific literacy by articulating and practicing the scientific method; students will evaluate data regarding validity; students will read and interpret a variety of scientific data; students will identify major macromolecules and state their importance to living organisms; students will explain metabolism; students will compare and contrast prokaryotic and eukaryotic structures and processes of cell division and replication; and students will explain gene expression; students will solve problems in transmission genetics. Pre/Corequisite: BSC 2010L, CHM 1045.

BSC2010L
Principles of Biology 1 Laboratory
2.00 credits
This laboratory course is designed to complement BSC 2010, Principles of Biology 1. It covers the nature of scientific investigation, the chemistry of life, microscopy, cell structure and function, metabolism, and the continuity of life. Corequisite: BSC 2010.

BSC2011
Principles of Biology 2
3.00 credits
This is the second in a sequence of two courses that deals with the principles of modern biology. It covers organic evolution, phylogeny, biological diversity, overviews of plant and animal form and function, behavior, as well as population, community, and ecosystem ecology. Prerequisites: BSC 2010, 2010L; corequisite: BSC 2011L.

BSC2011L
Principles of Biology Lab 2
2.00 credits
This course is intended for major's students and complements the lecture course BSC 2011. As such, it functions to provide majors students with hands-on experience with laboratory exercises designed to complement the presentation of the principles of biology as they relate to evolution, biological diversity, form and function in plants and animals, ethnology, ecology and conservation biology. Prerequisite: BSC 2010L; corequisite: BSC 2011.

BSC2020
Human Biology: Fundamentals of Anatomy/Physiology
3.00 credits
This course provides a basic understanding of the human body, its systems and their functions. It includes the dynamics of physiology, terminology, and physiological relationships of the body systems.

BSC2085
Human Anatomy and Physiology 1
3.00 credits
This course is the first part of a two-semester sequence in which students examine human anatomy and physiology through a systems approach based on the interaction between form and function, from the microscopic components of cells and tissues to the organismal level. Emphasis is placed on histology and the integumentary, skeletal, muscular, and nervous systems. Student learning outcomes: students will identify cell structures and describe their functions; students will distinguish tissues by structure, location in the body, and contrast their normal physiology; students will demonstrate an understanding of anatomical structure, organization of the body, cavities, planes, and directional terms; students will identify and describe structures of integumentary, skeletal,

muscular, and nervous systems; students will interpret the functions of the integumentary, skeletal, muscular, and nervous systems; students will explain how the components of the human body maintain homeostasis; and students will analyze and interpret physiological data. Corequisite: BSC2085L.

BSC2085L
Human Anatomy and Physiology 1 Laboratory
1.00 credits
In this laboratory course, student will learn to apply the concepts covered in BSC2085 as it pertains to structure and function of the human body from an experiential approach. This course is the first part of a two-semester sequence in which students examine human anatomy and physiology through a systems approach based on the interaction between form and function, from the microscopic components of cells and tissues to the organismal level. Emphasis is placed on histology and the integumentary, skeletal, muscular, and nervous systems. Corequisite: BSC2085

BSC2086
Human Anatomy & Physiology 2
3.00 credits
Building on concepts learned in BSC2085, students will learn the structure, function, and physiology of the human body, with an emphasis on the Endocrine, Cardiovascular, Lymphatic, Respiratory, Digestive, Urinary, and Reproductive Systems. Prerequisite: BSC2085 Corequisite: BSC2086L

BSC2086L
Human Anatomy & Physiology 2 Laboratory
1.00 credits
In this laboratory course, students will learn to apply the concepts covered in BSC2086, which include the structure and function of the Endocrine, Cardiovascular, Lymphatic, Respiratory, Digestive, Urinary, and Reproductive Systems and development, from an experiential approach. Prerequisite: BSC2085L , BSC2085 Corequisite: BSC2086

BSC2426
Biotechnology Methods and Applications 1
3.00 credits
This course addresses the basic principles, concepts and techniques of biotechnology necessary for an understanding of the field, and effective work in a pharmaceutical-biotechnology-and/or research laboratory setting(s). Practical applications of biotechnology are explored. Prerequisite: Previous knowledge of chemistry and biology strongly recommended; corequisite: BSC 2426L.

BSC2426L
Biotechnology Methods & Applications 1 Laboratory
2.00 credits
This laboratory course is designed to complement BSC 2426 Biotechnology Methods and Applications 1. This is a hands-on course that emphasizes the basic laboratory principles, techniques, and instrumentation, necessary for effective work in pharmaceutical, biotechnology, and/or research laboratory settings(s). Prerequisite: Previous knowledge of chemistry and biology strongly recommended. Corequisite: BSC 2426.

BSC2427
Biotechnology Methods and Applications 2
3.00 credits
This course addresses advanced principles, concepts and techniques of biotechnology necessary for an understanding of the field, and effective work in a pharmaceutical-biotechnology-and/or research-laboratory setting(s). The following areas of contemporary biotechnology are covered: forensics, bioremediation, and medical-, animal-, plant-, and marine biotechnology. Prerequisites: BSC 2426, 2426L.corequisite: BSC 2427L.

BSC2427L
Biotechnology Methods & Applications 2 Laboratory
2.00 credits
This laboratory course is designed to complement BSC 2427 Biotechnology Methods and Applications 2. This is a hands-on course that emphasizes advanced laboratory principles, techniques, and instrumentation necessary for effective work in a pharmaceutical, biotechnology, and/or research-laboratory setting(s). Prerequisite: BSC 2426, 2426L; Corequisite: BSC 2427.

BSC2943L
Bioscience Internship
3.00 - 6.00 credits
This internship course is a capstone for students majoring in bioscience and related programs. Students will learn to apply acquired knowledge and skills to gain experience in the bioscience workplace

BSC3930
Biological Sciences Seminar
1.00 credits
This course is designed for biological science majors. Students will gain an understanding of the broad range of career options within the biological sciences. Additionally, students will learn how to read, interpret, discuss, and cite selected examples of the scientific literature in different areas of biology. Prerequisites: BSC 2010, 2010L, 2011, 2011L.

BSC4422
Biotechnology Methods and Applications - III
3.00 credits
This course will explore biotechnology as a science and its implications in modern society. Students will learn how to make well-designed and controlled experiments. Students will also demonstrate knowledge of data acquisition and interpretation. Requisites: BSC 2427, 2427L, PCB 3060, 3060L, BCH 3023, 3023L. Corequisites: BSC4422L.

BSC4422L
Biotechnology Methods and Applications - III Lab
2.00 credits
This course provides students with hands-on laboratory experiences to supplement the BSC4422 lecture course. Students will learn how to perform advanced molecular bio techniques that build on previous

knowledge. They will perform diagnostic assays, western blots, purifications, etc and determine howto correlate findings with the basic research or clinical data. Prerequisites: BSC 2427, 2427L, PCB3060, 3060L, BCH3023, 3023L. Corequisite: BSC 4422.

BSC4434
Bioinformatics for Biologists
4.00 credits
The student will be introduced to the basic concepts and tools that scientists use to analyze biological information. Students will learn, through the examination of literature, development of projects and use of available web-based tools, how to store, retrieve and analyze genetic information. Prerequisites: BSC 2010, 2010L, 2011, 2011L, and PCB

BSC4940
Senior Specialty Internship
3.00 credits
This course will provide students with hands-on experience in the biological science workplace by conducting an internship. The experience readies the individual for their first position in-field. Prerequisite: Pre-completion of BS-BS core curriculum and approval by BS-BS faculty.

MCB2010
Microbiology
3.00 credits
This course introduces basic principles of morphology, physiology, biochemistry and genetics of microorganisms. The students will learn representative types of microorganisms including bacteria, algae, protozoa and viruses and the roles of various microorganisms in health and disease, modes of transmission and the effects of their activities in our biosphere. Students are strongly recommended to take the laboratory component MCB 2010L. Prerequisites: BSC 2010/2010L or BSC 2085/2085L, CHM 1033/1033L or CHM 1045/1045L.

MCB2010L
Microbiology Laboratory
2.00 credits
This laboratory course to accompany MCB-2010 complements lecture topics. Students will learn and have direct experience with fundamental techniques for observation, isolation, cultivation, counting, identification, and control of microbes. Prerequisites: BSC2010/2010L or BSC2085/2085L CHM1033/1033L or CHM 1045/1045L; corequisite MCB 2010.

MCB3023
Principles of Microbiology
3.00 credits
This course offers an introduction to the principles of microbiology. Students will learn the taxonomy, biochemistry, genetics, and ecology of microorganisms and will have an understanding of the impact of microorganisms on the advancement of the biological sciences. Prerequisites: BSC 2010, 2010L, 2011, 2011L, CHM 2211, 2211L. Corequisites: MCB 3023L.

MCB3023L
Principles of Microbiology Lab
2.00 credits
This Laboratory course accompanies MCB3023. Students will learn and have direct experience with fundamental techniques for observation, isolation, cultivation, enumeration, biochemistry, identification, genetics, and control of microbes. Prerequisites: BSC 2010, 2010L, 2011, 2011L, CHM 2211, 2211L.Corequisites: MCB3023.

MCB4503
Virology
3.00 credits
This course will cover general virology, including virus structure, replication cycles, infection and mode of transmission of human diseases. Student will learn the major families of the bacterial (bacteriophages), plant and animal viruses and how they influence infection. Prerequisites: MCB 3023, 3023L.

OCB1010
Introduction to Marine Biology
3.00 credits
An introduction to the biology of the seas. Emphasis is placed on the variety of marine organisms and their structural, physiological, and behavioral adaptations within specific marine environments. Special attention is directed to marine communities, e.g., coral reefs and shallow grass flats, and the factors limiting the distribution of organisms within those communities. Discussions will also be directed towards geological, chemical and physical characteristics of the world's oceans.

PCB3043
Fundamentals of Ecology
3.00 credits
This is a foundations course in ecology. In this course, students will learn the basic principles of ecology at organismal, population, community, and ecosystem levels, including consideration of Florida's ecosystems and human impact on those systems. Prerequisites: BSC 2011, 2011L.

PCB3060
Principles of Genetics
3.00 credits
This course is an introduction to the mechanisms of transmission of hereditary information. Students will learn the classical Mendelian principles of heredity, deviation of Mendelian principles, genetic analysis, linkage and mapping, genetics of populations, gene regulation, mutation, the genetic gases of cancer and other genetic disorders will also be studied. Prerequisites: BSC 2010, 2010L, BSC 2011, 2011L.

PCB3060L
Principles of Genetics Laboratory
2.00 credits
This laboratory course is designed to complement PCB 3060 Principles of Genetics. Students will learn hands-on skills with emphasis on laboratory principles, techniques, and instrumentation within the field of genetics. Prerequisites: BSC 2010, 2010L, 2011, 2011L. Corequisites: PCB 3060.

PCB4023
Molecular and Cell Biology
3.00 credits
Students will learn the structure and function of cells and biological membranes, signal transduction pathways, cell cycle and cell division, the flow of genetic information and the regulation of gene expression. Exploration of laboratory techniques and discussion of the cellular basis of human diseases will also occur. Prerequisites: BSC 2010, 2010L, 2011, 2011L.

PCB4097
Human Physiology
3.00 credits
The student studies the physiology of organism's major organ systems with emphasis on humans. Student will learn the principles of physics, cell biology, and anatomy in order to explain how the different organs systems work individually and in the context of the whole organism. Prerequisites: PHY 2054, 2054L, BCH 3023, 3023L, and PCB 4023.

PCB4233C
Fundamentals of Immunology
4.00 credits
Students will learn the immunological processes and concepts as they pertain to human health, disease prevention, development, and treatment. Its primary emphasis is on the cellular and non-cellular components of the immune system, and the ways in which these components interact to provide immunity. This is a combination lecture and lab course. Prerequisites: MCB3023, 3023L.

PCB4674
Evolution
3.00 credits
Students will learn the theory of evolution as it pertains to different fields of modern biology including the theory of natural selection, the evidence for evolution, microevolution, speciation, macroevolution, the origin of life on Earth, major evolutionary trends, and the evolution of humans. Prerequisites: BSC 2010, 2010L, 2011, 2011L, PCB 3060, 3060L.

PHI3633
Biomedical Ethics
3.00 credits
This is a foundation course in biomedical ethics and ethical theory. Students will learn to use methods of effective reasoning to apply to topics in biomedical ethics. These topics may include, but are not limited to, genetic engineering, stem cell research, human cloning, euthanasia, and clinical research ethics.

ZOO3021
Survey of Animal Diversity
3.00 credits
This course presents zoology as a scientific discipline. Students will learn the basic principles of zoological nomenclature, taxonomy, systematics, and the basic understanding of the relationships of animals to one another, to humans, their environment and to society. Prerequisites: BSC 2010, 2010L, 2011, 2011L.

ZOO3021L
Survey of Animal Diversity Laboratory
1.00 credits
This laboratory course provides hands-on experience with the concepts covered in the lecture ZOO 3021. Students will learn the basic principles of zoological nomenclature, taxonomy, and systematic; and the basic understanding of the relationships of animals to other organisms and to one another. Prerequisites: BSC 2010, 2010L, 2011, 2011L. Corequisite: ZOO 3021.

Building Construction

BCN1272
Building Construction Plans Interpretation 1
3.00 credits
Develops the students' ability to interpret working drawings. Students will learn the conventions of graphic and symbolic language used by construction professionals to communicate information on drawings. Emphasis is on architectural and structural details with limited coverage on mechanical and electrical aspects.

BCN1275
Building Construction Plans Interpretation 2
3.00 credits
Plan interpretation of complex working drawings for multi-story residential and commercial buildings. Students will learn to read and understand construction working drawings, identifying structural systems and their details. Familiarity with all aspects of complex working drawings will be addressed. Prerequisite: BCN1272

BCT1743
Building Construction Law
3.00 credits
The legal aspects of construction contracts and the responsibilities arising particularly from the field operations. Also includes relationship of the general contractor to owner, architect, and subcontractor; material men and mechanics lien law; bonds; labor law; and other statues and ordinances regulating contractors.

BCT1750
Building Construction Financing
3.00 credits
A study of building construction financing and related contract requirements. Topics include construction loans, permanent building mortgages, construction bids and contracts, penalty and incentive provisions, progress payments and retention, escalation, escalation provisions, costs extras, performance and bid bonds, company profits, cash flow, and business loans.

BCT1770
Building Construction Estimating Fundamentals
3.00 credits
An analysis and calculation of building construction costs. Students will learn the classification of materials, labor, and subcontracted work into the smallest manageable units. Students will develop a simple estimate for a residential structure. Prerequisite: BCN1272.

BCT1771
Building Construction Advanced Estimating
3.00 credits
Estimating more advanced elements of building construction. Students will learn to calculate direct, indirect, and overhead costs, as well as prepare bid proposals and related documents for commercial buildings. Prerequisite: BCN1275, BCT1770.

BCT2760
Building Code Regulations
3.00 credits
The restrictions and limitations of the various agencies concerned with the building industry. Provisions of the South Florida Building Code are stressed.

BCT2990
CBE Building Construction Specialist
1.00 – 18.00 credits
The BCT 2990 Building Construction course is designed to assess learner mastery of the competencies and skills necessary for a successful career in the Construction Industry. It provides a foundation in pursuing a career in building inspection and quality control. The course offers a sequence of coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed for further education and careers; provides technical knowledge and skills proficiency, and includes competency-based applied learning that contributes to the academic knowledge, occupation-specific skills, and knowledge of all aspects of the Architecture and Construction career cluster.

Business Law

BUL2131
Legal Environment
3.00 credits
Law in relation to the proper conduct of business including a consideration of the nature and sources of law, its legal environment and history. The Topics of business torts, crimes, contracts and forms of organizations are also covered.

BUL2241
Business Law 1
3.00 credits
Law in relation to the proper conduct of business, including a consideration of the nature and source of law, courts and courtroom procedure, contracts, sales of goods, negotiable instruments and secured transactions.

BUL2242
Business Law 2
3.00 credits
Emphasis on the laws affecting agencies, the formation and operation of partnership and corporation, personal and real property, insurance, surety ship, estates and bankruptcy, and a general review of government regulations affecting usual business operations. Prerequisite: BUL 2241.

BUL 4320
Business Law
3.00 credits
This course covers the basics of business law for accountants which include the topics of business organizations, securities law and corporate governance, agency and employment, sales and lease contracts, creditors' rights and bankruptcy, professional liability, government regulation, and property.The course also focuses on the nature of legal relationships in business with a particular emphasis on the government regulation of business, ethical, global, and corporate issues while addressing core curriculum requirements. Prerequisites: ACG 3113 and ACG 3343. Student must pass course with a grade of "C" or higher.

BUL4461
Law of International Trade
3.00 credits
Students will learn to interpret laws of international trade, licensing, and customer's regulation. This course also addresses U.S. customs regulations, classification of merchandise, application of tariff rules, duty free treatment, importing and exporting, liquidation inspection, search and seizure, and fines and penalties. In addition, the course will review the general rules and how to interpret the harmonized tariff schedule. Prerequisites: MAN 2021 and GEB 3358.

Chemistry

CHM1020
General Education Chemistry
3.00 credits
This course provides students with an introduction to chemical principles and applications for the non-science major. Students will engage in problem solving and critical thinking while applying chemical concepts. Topics will include the scientific method of problem solving, classification of matter, atomic theory, the periodic table, gases, chemical reactions, energy, and chemical bonds. Student learning outcomes: students will be able to distinguish between physical and chemical properties and changes; students will recognize components of gaseous chemistry; students will recognize components of aqueous chemistry including properties of water, solutions, and acids and bases; students will correlate the design of the periodic table to periodic trends and physical and chemical properties elements; and students will write and interpret chemical formula and write balanced chemical equations.

CHM1025
Introductory Chemistry
3.00 credits
This course will provide beginning students with certain basic knowledge and skills, which will enable them to be successful in the first semester of General Chemistry I, CHM 1045. The students will learn elementary principles of modern chemistry, including basic measurements, chemical bonding, chemical reactions, stoichiometry, concentration of solutions, and chemical nomenclature. Prerequisite MAT 1033.

CHM1025L
Introductory Chemistry Lab
1.00 credits
This course is an optional beginning chemistry laboratory course, which has been designed for those students who have little or no background in chemistry and are enrolled in CHM 1025. Students will reinforce what they learn in CHM 1025, including basic measurements, chemical bonding, chemical reactions, stoichiometry, concentration of solutions, and chemical nomenclature.

CHM1033
Chemistry for Health Sciences
3.00 credits
This course emphasizes chemistry topics related to allied health. Students will learn the essentials of inorganic chemistry, organic chemistry, biochemistry and their applications to physiological functions. Prerequisite: MAT 1033; Corequisite: CHM1033L.

CHM1033L
Chemistry for Health Sciences lab
1.00 credits
This course emphasizes chemistry topics related to the allied health sciences. Students will learn the essentials of inorganic chemistry, organic chemistry, biochemistry, and their application to physiological functions in a laboratory setting. Prerequisite: MAT1033 Corequisite: CHM1033

CHM1045
General Chemistry and Qualitative Analysis
3.00 credits
This course is designed for students pursuing careers in the sciences or who need a more rigorous presentation of chemical concepts than is offered in an introductory course. Students will engage in problem solving and critical thinking while applying chemical concepts. Topics will include the principles of chemistry including atomic theory, electronic and molecular structure, measurement, stoichiometry, bonding, periodicity, thermochemistry, nomenclature, solutions, and the properties of gases. Student learning outcomes: students will apply the law of conservation of matter and energy; students will implement rules of significant numbers to all measurements; students will explain the fundamental properties of matter including but not limited to atomic and electronic structure, and periodicity; students will apply IUPAC rules of nomenclature; students will predict molecular geometry and properties from bonding theories; and students will predict and explain the products of chemical reactions (e.g., acid-base, oxidation-reduction, precipitation, dissociation). Prerequisite: CHM1025 or a passing score on the CART exam, MAC 1105. Co-requisite: CHM 1045L.

CHM1045L
General Chemistry and Qualitative Analysis Lab
2.00 credits
This laboratory course complements the principles of chemistry covered in CHM1045, providing hands-on experience in applying chemical concepts. Students will engage in practical experiments and data analysis to reinforce their understanding of atomic theory, electronic and molecular structure, measurement, stoichiometry, bonding, periodicity, thermochemistry, nomenclature, solutions, and gas properties. Through these laboratory exercises, students will develop critical thinking skills, learn proper laboratory techniques, and gain experience in scientific reporting. This course is designed to prepare students pursuing science careers with the practical skills necessary for advanced study in chemistry and related fields. Prerequisite: MAC1105, CHM1025 or a passing score on the CART exam; Corequisite: CHM1045.

CHM1046
General Chemistry and Qualitative Analysis
3.00 credits
CHM 1046 is the second course in the CHM 1045-1046 sequence. Students will learn major topics in modern chemistry including but not limited to thermodynamics, kinetics, solutions equilibria including acids, bases, and other ionic equilibria and electrochemistry. Prerequisite: CHM1045 Corequisite: CHM1046L

CHM1046L
General Chemistry & Qualitative Analysis Lab
2.00 credits
CHM 1046L is the second semester general chemistry laboratory course. Students will learn the basic laboratory techniques involved in general chemistry and to reinforce and illustrate several of the important topics in general chemistry (e.g., qualitative and quantitative analysis, equilibrium, thermodynamics, and kinetics). The enrollment generally consists of pre-medical, pharmacy, medical technology, physical therapy, engineering, and science students. Prerequisite: CHM 1045, 1045L; Corequisite: CHM1046.

CHM2200
Survey of Organic Chemistry
3.00 credits
This one-semester course briefly examines the structure, synthesis, nomenclature and reactivity of selected mono-and-poly-functional organic compounds. Theories that relate the structure of organic molecules to their chemically reactivity will be presented as a unifying principle. Prerequisite: CHM 1046 and CHM 1046L; Corequisite: CHM 2200L.

CHM2200L
Survey of Organic Chemistry Laboratory
1.00 credits
Experiments and exercises will be conducted to introduce students to the basic laboratory techniques that are used in organic chemistry and that re-enforce and illustrate several important topics in organic chemistry. Prerequisite: CHM 1046 and CHM 1046L; Corequisite: CHM 2200.

CHM2210
Organic Chemistry 1
3.00 credits
In Organic Chemistry 1, students will learn about aliphatic hydrocarbons and their derivatives. Lectures are supplemented by

laboratory preparation of representative compounds. Prerequisite: CHM1046 and CHM 1046L; Corequisite: CHM2210L

CHM2210L
Organic Chemistry 1 Laboratory
2.00 credits
Students will learn to reinforce and illustrate topics learned in CHM 2210. Topics such as nomenclature, preparations, reactions and electronic and structural features of alkanes, alkenes, alkynes, alkylhalides, aromatic hydrocarbons and other organic compounds will be performed in a laboratory setting. Prerequisite: CHM1046L Corequisite: CHM2210.

CHM2211
Organic Chemistry 2
3.00 credits
In organic chemistry 2, students will learn about nomenclature, preparation reactions, and electronic and structural features of alcohols, ethers, phenols, aldehydes, ketones, carboxylic acids, acid anhydrides,amides, esters, and other organic compounds. Prerequisite: CHM 2210 and CHM 2210L; Corequisite: CHM 2211L

CHM2211L
Organic Chemistry 2 Laboratory
2.00 credits
Students will learn to reinforce and illustrate topics learned in CHM 2211. Topics such as nomenclature, preparations, reactions and electronic and structural features of alkanes, alkenes, alkynes, alkyl halides, aromatic hydrocarbons and other organic compounds will be performed in a laboratory setting. Prerequisite: CHM 2210 and CHM 2210L; Corequisite: CHM 2211.

CHS1522C
Forensic Science 1
4.00 credits
An introductory course in the principles and techniques of forensic science. Students will learn how forensic science pertains to crime scene investigation and crime laboratory analysis.

CHS2523
Forensic Science 2
3.00 credits
This is a continuation of Forensic Science 1. Students will learn topics which include but are not limited to: drug identification and toxicology; document analysis; death determination; soil examination methodology; forensic anthropology; tool marks and casts/impressions. Prerequisite: CHS 1522C.

Chinese Language

CHI1120
Elementary Mandarin Chinese 1
4.00 credits
In this course, students will develop appropriate proficiency in interpersonal, interpretive, and presentational modes at the novice mid-level in mandarin Chinese. Note: Students must pass this course with a C or better to continue to CHI1121.

CHI1121
Elementary Mandarin Chinese 2
4.00 credits
In this course, students will develop appropriate proficiency in interpersonal, interpretive, and presentational modes at the novice high level in mandarin Chinese. Note: Students must pass this course with a C or better to continue to CHI2220. Prerequisite: CHI1120.

CHI2220
Intermediate Mandarin Chinese 1
4.00 credits
A continuation of CHI 1121. Students will learn Chinese language and culture through a systematic review of reading and writing skills with emphasis on oral as well as written presentations. Students will also learn the use of Chinese radicals and characters rather than pinyin. Prerequisite: CHI1121 or equivalent.

CHI2221
Intermediate Mandarin Chinese 2
4.00 credits
A continuation of CHI2220. Students will learn advanced grammar, together with the introduction of more complex reading materials and an increase in the number of radicals and characters. Students will also be exposed to cross-cultural awareness. Prerequisite: CHI2220 or equivalent.

Computer Science & Related Technologies

CAI1001C
Artificial Intelligence (AI) Thinking
3.00 credits
A survey of artificial intelligence (AI) where students explore different technologies utilizing concepts and skills widely accepted for AI and digital competency. Classification algorithms, supervised vs. unsupervised learning, data preparation, and training/using learning models for predictions are presented. CGS1060C and MAT1033 are recommended, but not required. (2 hr. lecture, 2 hr. lab)

CAI2100C
Machine Learning Foundations
3.00 credits
Students are introduced to machine learning concepts and Python applications, including data acquisition, supervised, unsupervised, and reinforced learning. In addition, students will develop and deploy artificial intelligence (AI) models utilizing classification algorithms. Prerequisite: CAI 1001C and COP 1047C.

CAI2300C
Introduction to Natural Language Processing
3.00 credits
Students will learn the fundamental concepts of Natural Language Processing (NLP) and text processing. In addition, focus will be on knowledge and skills necessary to create a language recognition application. Prerequisite: CAI 2100C and recommended preparation: COP1047C or equivalent knowledge of Python programming language.

CAI2820C
Artificial Intelligence Applications Solutions
3.00 credits
A lower division course for students majoring in Applied Artificial Intelligence (AI). Students will demonstrate competence to scope, acquire/explore data, model, evaluate, and deploy an AI/machine learning solution in a team environment. Students will create and present a code or no-code AI solution. Must be taken during the last semester before graduation. Prerequisites: CAI 2300C and CAI 2840C.

CAI2840C
Introduction to Computer Vision
3.00 credits
Students will learn fundamental concepts in Computer Vision (CV) and image processing, including introduction to necessary proprietary and opensource Python libraries. Prerequisite: CAI 2100C and recommended preparation: COP1047C or equivalent knowledge of Python programming language.

CAI3303C
Natural Language Processing
3.00 credits
Students will further explore Natural Language Processing domains. Focus on deep learning application and use of the latest pre-trained models on real world applications. Prerequisite: CAI 2300C

CAI3821C
Computational Methods and Applications for Artificial Intelligence 1
3.00 credits
Computational data analysis is an essential part of artificial intelligence (AI). This course is designed to help students develop programming skills for AI applications. Students will learn core concepts of computational methods to solve data analysis problems, AI algorithmic methodologies, and how to test AI models.Prerequisites: CAI2100C, COP 1047C, MAC 1105, STA 2023

CAI3822C
Computational Methods and Applications for Artificial Intelligence 2
3.00 credits
This course is designed for students to acquire a deeper understanding of computational methods used in the applications of artificial intelligence (AI) with programming. The topics of this course will be a continuation of those covered in Computational Methods and Applications for Artificial Intelligence I, with added emphasis on case studies using machine learning. Prerequisite: CAI 3821C

CAI4420C
Applied Decision and Optimization Theory
3.00 credits
Students will learn how to formulate and optimize queuing, linear and nonlinear programming models. Students will understand how to apply decision-making logic and optimization techniques to artificial intelligence models and conduct decision analysis of real-world problems. Prerequisite: CAI 4505C

CAI4505C
Artificial Intelligence
3.00 credits
The course provides an in-depth survey of important concepts, problems, and techniques in artificial intelligence, including heuristic and adversarial search, constraint satisfaction problems, logical reasoning, reasoning with uncertainty, and machine learning. A particular focus and a unifying theme of the course will be the notion of intelligent agents and their implementation. Prerequisites: CAI 3822C, COP 3350

CAI4510C
Machine Intelligence
3.00 credits
The course will cover advanced modeling techniques, including ensemble learning, extended linear models and kernel methods (PCA, support vector machines), probabilistic graphical models, Bayesian networks, mixture and latent variable models, biologically inspired computing (neural networks), feature selection and feature engineering techniques, Markov models, and temporal modeling to find patterns over time. Prerequisites: CAI 3822C, COP 3350

CAI4525C
Artificial Intelligence Systems Automation
3.00 credits
Students will learn how to use automated tools to develop enterprise automation projects. Students will understand how to create variables, arguments, workflows, build and publish automated process and effective user interface automations. Prerequisites: CAI4505C and CAI 4510C.

CAI4830C
Simulation for Applied Artificial Intelligence
3.00 credits
Students will learn how to choose the right constructs of the modeling language to create a representation of a real-world system that is suitable for risk-free dynamic experiments. In addition, the students will learn how to build and deploy simulation models using the three major paradigms in simulation modeling for AI: agent-based, system dynamics, and discrete-event. Pre/Corequisite: CAI 4505C

CAI4950C
Artificial Intelligence Capstone
3.00 credits
Students will demonstrate competence to scope, acquire/explore data, model, evaluate, and deploy an AI/Machine Learning solution in a team environment. Students will create and present an AI solution. Must be taken during the last semester before graduation. Prerequisites: CAI 4510C, 4420C, 4830C; Pre/Corequisite: CAI 4525C

CAP1788
Introduction to Data Analytics
4.00 credits
This course offers a broad introduction to data analytics and the role it plays in modern organizations. Students will use Excel and Tableau to import, clean,

transform, and visualize data. Students will also learn how to effectively communicate findings to decision makers.

CAP2047
User Interface Design
4.00 credits
This course is for students majoring in game development. Gaining a foundational understanding of programming and the use of Adobe Photoshop or Illustrator is suggested prior to enrolling in this course. It covers designing and developing interfaces for games. Students will learn how to use different input/output hardware devices, how to create and use existing interfaces for different types of hardware, and the development process for different types of gaming systems. Prerequisite: DIG 1710 and DIG 1729C; Pre/Corequisite: COP 2335.

CAP2048
Game Development Project
5.00 credits
This capstone course is for students majoring in Game Development and Game Animation. Student's will work in cross disciplinary teams to develop a working animated game or film. Students will learn how to apply the skills and knowledge they have acquired in a real world working development environment. Pre-Req:CAP 2047 or DIG 1302, COP 1334 or DIG 1111, COP 2335 or DIG 1437, DIG 1430, DIG 1710 or DIG 1132; Pre/Co-Req:DIG 1712 or DIG 2113

CAP2743C
Power BI: Data Visualization and Analysis
4.00 credits
This is the second of two introductory courses aimed at preparing students for the Microsoft Power BI certification exam. Students will learn how to create informative data visualizations and leverage Power BI's analytic capabilities to provide meaningful business insights. Prerequisite: CAP 2791C.

CAP2761C
Intermediate Analytics
4.00 credits
This course offers an introduction to the SQL language and how it can be used by data analysts to query databases and gain valuable insights. Students will also gain extensive hands-on experience with Microsoft SQL Server, Azure, and GitHub. Prerequisite: CAP 1788 and CGS 1540C.

CAP2791C
Power BI: Data Preparation and Modeling
4.00 credits
This is one of two introductory courses aimed at preparing students for the Microsoft Power BI certification exam. Students will learn how to get data from different sources, clean and transform the data, and design a data model that will be used in analysis and reports. Prerequisites:CAP 1788 and CGS 1540C.

CAP2920C
Game Development Project II
4.00 credits
This capstone course is for students majoring in Game Development and Game Animation. Students will work in cross disciplinary teams to develop a working 5-10 min interactive game experience. Students will learn how to apply the skills and knowledge they have acquired in a real world working development environment. Pre-Req:CAP 2048, DIG 1712 or DIG 2113.

CAP3321C
Data Wrangling
4.00 credits
This course offers a broad introduction to data wrangling, data retrieval, and the use of Python in data analytics. Students will use Python and other business intelligence tools to retrieve data from various sources, clean the dataset, and prepare it for data analysis tasks. Prerequisites: CAP 1788 and CAP 2761C.

CAP3330
Programming R for Statistics
4.00 credits
This upper division course is for students majoring in data analytics. Students will learn the R programming language and use it to perform intermediate-level statistical analysis. Techniques used in data analysis, such as analysis of variance and regression, will be emphasized. Prerequisite: STA 2023.

CAP3770
Predictive Analytics Algorithms
4.00 credits
This course is for students majoring in Data Analytics. Students will learn the fundamental algorithms used in data mining and analysis. Students will learn various methods and techniques used in data mining, clustering and classification. Prerequisite: STA2023.

CAP4631C
Machine Learning for Data Analytics I
4.00 credits
This upper division course is for students majoring in data analytics. Students will learn why machine learning is crucial for data analytics and why regression analysis is a foundation of supervised machine learning. Using Python programming, students will use a variety of packages to create regression models that make predictions. Prerequisites: COP1047C; STA3164 or CAP3330.

CAP4633C
Machine Learning for Data Analytics II
4.00 credits
This upper division course is for students majoring in data analytics. In this second-level course, students will use the Python programming language to create additional machine learning models for classification. In addition, students will explore various applications of multi-layer neural networks. Prerequisites: CAP4631C.

CAP4744
Data Visualization
4.00 credits
This course focuses on creating complex and informative visualizations using Tableau. Students will learn how to formulate business questions, organize complex and large datasets, analyze and interpret data, deliver actionable insights, and publish the results. Coverage includes preparation for intermediate-level Tableau certifications. Prerequisites: CAP 1788 and CAP 2761C.

CAP4767
Data Mining
4.00 credits
Students will learn how to extract useful data from an organization's data warehouse and analyze it to uncover hidden patterns and relationships. An emphasis will be placed on unsupervised data mining techniques, as well as the use of the RapidMiner software. Prerequisites:CAP 1788 and CAP 2761C.

CAP4784
Big Data
4.00 credits
This course focuses on the processing of massive datasets, both structured and unstructured. Students will learn how to use Databricks and Spark to manage and analyze large datasets from a variety of sources. In addition, student will gain an understanding of how Databricks supports the end-to-end data science workflows that allow users to extract and share business insights. Prerequisites: CAP 1788 and CAP 2761C.

CAP4910
Data Analytics Capstone
4.00 credits
This upper-division course is for students majoring in Data Analytics. Students will initiate a business-driven data analytics solutions to a real-world problem utilizing acquired skills in statistical analysis, machine learning, data mining, and data visualization. Must be taken during the last semester before graduation. Departmental approval required. Prerequisites: CAP4633C, CAP4767, CAP4744.

CAP4936
Special Topics in Data Analytics
4.00 credits
This upper division course is for students majoring in data analytics. The course centers around topics of current interest or of special interest to students or instructors. Topics or focus may vary from semester to semester. Prerequisite: Department permission.

CEN2211
C/C++ Programming for Embedded Devices
4.00 credits
This course teaches the principles of programming in the C/C++ languages for embedded devices. The student will learn how to create programs to control open source hardware for building digital devices that can sense and control the physical world around them and communicate with the Internet. Prerequisite: COP1334; Corequisite: EET 1033C.

CEN2212C
Introduction to Programming the Internet of Things (IoT)
4.00 credits
This course teaches the principles of programming Internet of Things devices using a computer language. The student willlearn fundamental programming concepts and systematic design techniques.At the end of the course, the student will be able to write programs that control development boards, with sensors, connected to the Internet. Prerequisites: CEN2211; EET 1033C.

CEN4025C
Software Engineering II
4.00 credits
This upper division course is for students majoring in the B.S. in Information Systems Technology or the B.S. in Electrical and Computer Engineering Technology programs. This course covers in-depth topics in software process structures, process models, requirements modeling with use-cases and class-based methods. Students will also learn design concepts including abstraction, OOD concepts, component-level and architectural design, user interface analysis and design, and design patterns. Prerequisite(s): CET 3383C.

CEN4090C
Software Engineering Capstone
4.00 credits
This upper division course, for students majoring in the BS-IST Software Engineering concentration, requires students to demonstrate their competence to analyze, design, develop, and test a software system. Student(s) will create, implement, and present a software project plan that includes the following work products: software requirements specification, design specification document, code, unit tests and project system test plan to create an operational system. This course should be taken during the last semester before graduation and with a departmental permission. Prerequisite(s): Student must be classified as a Senior and have completed at least 3 of the 5 concentration courses to obtain departmental approval.

CGS1005C
Computing Fundamentals for Entrepreneurship
4.00 credits
This interactive discovery course for non-computer majors teaches how to apply computational thinking to solve real world problems. Students will learn basic computer programming, web design, mobile application development, project management and desktop publishing through the use of case studies and scenarios that simulate real world business applications.

.CGS1060C
Introduction to Computer Technology & Applications
4.00 credits
This foundational course provides the computer science and mathematical skills required for academic and professional success through a comprehensive introduction to technology principles in

Computer Science and Algorithms, Applied Artificial Intelligence (AI), Data Analytics, Cybersecurity, Cloud Computing, and productivity software. Bridging theory and applications, students acquire current and well-rounded computational and technological competencies.

CGS1540C
Database Concepts Design
4.00 credits
This course is designed for computer science majors and non-majors who require a fundamental knowledge of databases and database management systems. Students will learn how to design, implement and use databases to maintain and manipulate data. Students should have knowledge of basic computer concepts or seek faculty advisement.

CGS1560
A+ Computer Operating Systems
4.00 credits
This is a comprehensive course in the use of operating systems for microcomputers suitable for students seeking preparation for A+ operating system certification. Students will learn how to install, configure, use, manage, and troubleshoot the Disk Operating System (DOS), Microsoft Windows, and other microcomputer operating systems. Prerequisite: CGS 1060 or computer experience is required.

CGS1700
Introduction to Operating Systems
4.00 credits
This course examines the role of operating systems as the interface between the hardware, the software and the users of a computer system. It explores the concepts such as processes and threads, file systems, virtual memory, interrupt handling, virtualization and security.

CGS2091
Professional Ethics and Social Issues in CS
4.00 credits
This course is designed to provide computer science majors and others with an introduction to professional ethics & social issues in Computer Science. Students will learn theories associated with the legal, ethical, and social issues relevant to information technology, and the roles and responsibilities of computer professionals in today's technological society.

CGS2108
Advanced Desktop Applications
4.00 credits
This is an advanced level course for major and non-major students who have completed CGS 1060, Introduction to Microcomputer Usage. Students will learn advanced computer skills using software applications, such as word processing, spreadsheets, database, presentation graphics, and communications and scheduling software. Students will also learn advanced file management techniques, deal with security issues, and troubleshoot hardware and software. Prerequisite: CGS1060C.

CGS3763
Operating System Principles
4.00 credits
This upper division course, for students majoring in Information Systems Technology, introduces fundamental operating system topics and includes both computer system and operating system structure. Students will learn how processes, threads, concurrent programming, interrupt handling, CPU scheduling and process synchronization, and I/O system memory management affect the system structure. Additionally, students will learn how virtual memory, deadlocks, file system, and command interpreter relate to client/server systems. Prerequisite: COP 1334.

CIS1321
Introduction to Systems Analysis and Design
4.00 credits
This course introduces computer science and non-majors to fundamental skills of analysis and design of management information systems. Students learn the concept of charting, investigating, documenting and reporting using current information systems, system analysis tools and system design tools. The related concept of management, organization, computers, information processing and the system approach are combined and applied to case studies. Prerequisites: CGS 1060. Knowledge of business accounting is recommended.

CIS1531
Introduction to Secure Scripting
4.00 credits
This course provides students with the knowledge and skills to: create secure scripts and programs using system shells and programming languages; implement and debug algorithms to solve problems; automate and perform administrative tasks; manage data handling, and backup and storage.

CIS1949
Co-op Work Experience 1: CIS
1.00 - 4.00 credits
This course is designed as a work experience for students majoring in computer information systems programs. Students will learn to apply the skills and knowledge that they have acquired through their program of study in a real work environment. Prerequisite: Successful completion of required program course work. Department approval required.

CIS2322
Systems Analysis and Design Implementation
4.00 credits
This course is designed for students majoring in computer programming. Students build on the concepts learned in CIS 1321 by applying detailed design and analysis techniques to implementing an information system. Students will learn to synthesize concepts of management, organization, computers, information processing, and the system approach to analyze case studies. Prerequisites: CGS 1060 and CIS1321. Knowledge of business accounting is recommended.

CIS2350
Cybersecurity Analysis
4.00 credits
This course provides students an intermediate skills-level approach to cybersecurity analysis. Students learn to identify the

phases of an attack, the motivations of the adversary, the resources and techniques they use, the intended effect, or end-game, and how to mitigate threats. Topics include intrusion detection and response, analytics and advanced threat visibility. Prerequisites: CTS1120 and CTS1134.

CIS2430C
Remote IT and Security Management
4.00 credits
This course equips students with essential tools and strategies for Remote IT and Security Management (RITSM). It covers proactive security, business continuity, disaster recovery, and the use of Managed Service Provider (MSP) tools. Participants explore RITSM tools and technologies such as RMM, IT Glue, and Datto Networking. Prerequisites: CTS1134 and CTS1120.

CIS2900
Directed Study IT
1.00 credits
This course is for students majoring in Information Technology. Students will complete projects and make presentations based on self-directed research and related experiences. Prerequisite: Successful completion of required program course work. Department approval required.

CIS2949
Co-op Work Experience 2: CIS
1.00 - 4.00 credits
This course is designed as a second-level capstone for students majoring in computer information systems programs. Students apply advanced skills and knowledge that they have acquired through their first capstone course in a real work environment. Prerequisite: CIS1949. Successful completion of required program course work. Department approval required.

CIS3215
Ethics in CyberSecurity
4.00 credits
This course provides the study of the risk factors for digital and ethical misconduct and it explores ethics, relevant laws, regulations, policies, standards, moral, and social issues and responsibilities faced by CyberSecurity professionals. Coverage includes examination of CyberSecurity policies; Federal Laws and Authorities and International Standards; ethical and legal compliance and enforcement; business issues; contractual management of assets and liabilities; and issues involving privacy, disclosure, free speech and individual rights.

CIS3360
Principles of Information Security
4.00 credits
This upper division course, for students majoring in Information Systems Technology, provides an overview of information systems security principles, practices, methods, and tools for organizational and institutional computing. Students will learn about the relationship between policy and security, the mechanisms used to implement policies, and the methodologies and technologies for assurance and vulnerability analysis and intrusion detection. Students will be required to perform security analyses, and set up protection schemes. Prerequisites: CTS 1134 or CTS 1650.

CIS3361
Information Security Management
4.00 credits
This course covers how to manage, design, oversee and assess an organization's information security. The student will learn how to develop an information security strategy, how to write information security policies, and how to manage information risk. Other topics include security program development and management, business continuity planning and disaster recovery planning. Prerequisite: CIS3360.

CIS3368
Data Security & Governance
4.00 credits
This upper division course is for students majoring in Data Analytics. Students will gain an understanding of how analytics can be applied to a variety of security-related problems across organizations. In addition, students will explore various ethical, legal, and data governance issues that affect data analysts.

CIS3510
Information Technology Project Management
4.00 credits
This upper division course, for students majoring in Information Systems Technology, covers the general aspects of project management and emphasizes the important special considerations which apply to information technology projects. Students will learn the principles, processes and practices of information technology project management, including techniques for planning, organizing, scheduling, and controlling software projects with a substantial focus on cost estimation and risk management.

CIS4204
Ethical Hacking I
4.00 credits
This upper division course introduces students to penetration testing techniques. The student will learn how to footprint, scan, and enumerate networks, how to hack web applications, wireless networks, and mobile platforms, and how to evade IDS, firewalls and honeypots. Other topics include denial of service attacks, social engineering, malware and relevant laws. Prerequisite: CIS3360.

CIS4347
Information Storage Management
4.00 credits
This upper division course, for students majoring in Information Systems Technology, introduces challenges and solutions for data storage and data management. Students will learn how to manage advanced storage systems, protocols, and architectures, including storage area networks (SAN), network attached storage (NAS), fiber channel networks, internet protocol SANS(IPSAN), ISCSI, and content-addressable storage (CAS). Prerequisite: CGS 1540.

CIS4364
Intrusion Detection and Incident Response
4.00 credits
This upper division course addresses the underlying principles and techniques for detecting and responding to current and emerging cybersecurity threats. Students will learn how to handle various types of malware, email, web, network, cloud and internal network incidents, as well as risk assessment methodologies, and policies related to incident handling. Prerequisite: CIS 3360.

CIS4366
Computer Forensics
4.00 credits
This upper division course, for students majoring in Information Systems Technology, provides the student with knowledge and skills to conduct formal incident investigations. The student will learn how to collect and analyze evidence from Windows and Linux computer systems. Other topics include legal issues, evidence analysis, and report writing. Prerequisite: CIS3360.

CIS4617
Knowledge Management
4.00 credits
This upper division course, for students majoring in Information Systems Technology, explores how an enterprise gathers, organizes, shares, and analyzes its knowledge in terms of resources, documents, and people skills. Students will learn how to gather, organize, refine and disseminate information needed in a small business or corporation using technical applications to house and mine the data. Prerequisite: COP 4723.

CIS4378
Ethical Hacking II
4.00 credits
This upper division course is a continuation of Ethical Hacking I. Students will focus on how web applications, wireless networks, and mobile platforms can be hacked, and how intrusion detection systems (IDS), firewalls and honeypots can be evaded. Other topics include cloud computing security, Internet of Things (IoT) security, and cryptography. Prerequisite: CIS4204.

CIS4388
Advanced Computer Forensics
4.00 credits
This upper division course is a continuation of Computer Forensics. The course examines forensics techniques necessary to investigate and analyze network traffic. The course covers packet capture and analysis, log file analysis, and flow analysis. Other topics include mobile forensics, cloud forensics, malware forensics, database forensics, and investigating email crimes and web attacks. Prerequisite: CIS 4366.

CIS4891
Cyber Security Capstone Project
4.00 credits
This upper-division course requires students to apply the knowledge and skills acquired for a cyber security project. Students will assess risk and define the cyber security requirements for a real-world scenario. Then they will design, implement and test the necessary cyber defenses to reduce the risk to an acceptable level in an emulated IT environment. Must be taken during the last semester before graduation and with a departmental permission. Prerequisite(s):Senior status. Department approval required.

CNT3409C
Network Security
4.00 credits
In this course, the student will be introduced to current and emerging threats to the security of computer networks, as well as tools and techniques for the prevention, detection and recovery from such attacks. Topics include firewalls, intrusion detection and intrusion prevention systems, virtual private networks, remote authentication and authorization systems, and security protocols. Prerequisite: CIS3360.

CNT3526C
Wireless and Mobile Networking
4.00 credits
This is upper division course for students majoring in Information Systems Technology introduces students to wireless and mobile network architecture, protocols and technologies. The student will learn about Wireless Local Area Networks (WLANs), Wireless Personal Area Networks (WPANs) and Wireless Metropolitan Area Networks (WMANs) technologies. Other topics include antenna concepts, cellular networks, the 802.11 network architecture, and wireless security. Prerequisite: CTS1134 or CTS1650.

CNT4603
System Administration and Maintenance
4.00 credits
This upper division course, for students majoring in Information Systems Technology, explores UNIX and Microsoft Windows systems and their administration and maintenance within the network setting. Students will learn how to install, maintain, and extend multi-user computer systems and how to develop administrative policies and procedures. Students will also learn how to apply troubleshooting and problem solving skills to resolve user and system issues. Prerequisite: CTS 1134 or 1650.

CNT4702
Network Design and Planning
4.00 credits
This upper division course, for students majoring in Information Systems Technology, presents network design using layering. Students will learn how to apply cabling, topology, and architecture to design systems. Students will also learn how design impacts network performance and control issues such as congestion control, error control, and contention resolution. Prerequisite: CIS 3360.

COP1047C
Python Programming
4.00 credits
This is a course in Python programming available for students at all levels. Students will learn the syntax and rules of the Python language, including how to code, compile, and execute programs. Students study program design, structured modular programming arrays, report generation, and file processing.

COP1332
Introduction to Visual Basic Programming
4.00 credits
This course introduces computer science and non-major students to fundamental programming skills using the Visual Basic Integrated Development environment. Students will learn program design, the fundamentals of event driven object-oriented programming, arrays, validation of user input, and how to create menu driven programs and multiple form applications. Pre/Co-requisite: CGS1060C. Knowledge of high school algebra is recommended.

COP1334
Introduction to C++ Programming
4.00 credits
This course is designed for students in technology majors who require a foundation in computer programming. Students will learn the syntax and rules of the C++ language, including how to code, compile, debug and execute programs. Students will learn program design, structured and modular programming, arrays, and file processing. No previous computer courses are required although CGS 1060C is recommended.

COP2270
"C" for Engineers
4.00 credits
This course is intended for students majoring in Computer Engineering Technology, Electronics Engineering Technology, or any engineering discipline. Students will learn the C programming language, MATLAB, and the Engineering Problem Solving Method to analyze, design, code, compile and execute programs that solve engineering related problems. Pre/Corequisite: MAC1105. Recommended Preparation: CGS1060C or knowledge of computer skills.

COP2333
Advanced Programming Concepts using Visual Basic
4.00 credits
This course provides Microsoft Visual Basic developers with the knowledge and skills needed to develop Microsoft. Net-based applications using Visual Basic.NET. Students use advanced programming and object oriented tools to create enterprise applications for the .NET Platform and to create more traditional Visual Basic applications that take advantage of the enhancements to the language. Prerequisite: COP1332.

COP2335
Object Oriented Programming using C++
4.00 credits
This second course in C++ programming is recommended for Computer Science and Computer Information Systems majors. Students will learn techniques and skills of object oriented programming including object-oriented modeling, analysis, and design. Prerequisite: COP1334. Knowledge of high school algebra is recommended.

COP2654
iPhone Application Development 1
4.00 credits
This is an introduction to iOS programming course using the Objective C computer language, recommended for Computer Science and Computer Information Systems majors. Students will learn to code, compile and execute mobile iOS applications while learning advanced programming concepts and object oriented programming design concepts and principles. Prerequisite: COP 1332 or COP 1334.

COP2658
iPhone Application Development 2
4.00 credits
This intermediate iOS course teaches the principles of iPhone application development for majors in Computer Science, Computer Information Systems, and related disciplines. Students will learn how to create mobile applications that can be deployed to iPhone smartphones, tablets or simulators utilizing Cocoa and X Code for development. Emphasis will be placed on learning the underlying iPhone framework and components in order to create quality mobile applications. Prerequisite: COP 2654.

COP2660
Android Application Development 1
4.00 credits
This course teaches the principles of Android application development for majors in Computer Science, Computer Information Systems, and related disciplines. Students will learn how to create mobile applications for deployment to Android smartphones, tablets or simulators utilizing open source software (Java, Eclipse IDE, Android Plug-In and Android SDK) for development. Emphasis will be placed on the underlying Android framework to create quality applications. Prerequisite: COP 2800.

COP2662
Android Application Development 2
4.00 credits
This course for majors in Computer Science, Computer Information Systems, and related disciplines teaches how to develop advanced Android applications. Students will learn how to create applications utilizing the advanced capabilities of Android smartphones, including interfacing the application to the devices content provider's databases, GPS and location based services, notifications, background threads, audio, video, SMS, motion sensors and network connectivity. Prerequisites: COP2660, 2800.

COP2800
Java Programming
4.00 credits
This is an intermediate level programming course using the Java computer language. Students will learn to code, compile, and execute programs while learning advanced programming concepts and object-oriented programming and design principles. Prerequisite: COP 1047C, COP 1334, or COP 2270.

COP2805C
Advanced Java Programming
4.00 credits
This is an advanced level programming course using Java. Students will learn how to code, compile and execute programs. Topics include object serialization, Java Collection, sorting/searching algorithms, multithreading and networking capabilities, and Java databases. Prerequisite: COP2800.

COP2842
Developing Websites using PHP/ MYSQL
4.00 credits
This is an intermediate course for students preparing to become web developers. Students will learn to develop dynamic, interactive web sites using PHP5, an open source programming language and MYSQL database Prerequisites: COP 1332 or COP 1334.

COP3530
Data Structures
4.00 credits
This upper division course is for students majoring in B.S. in Information Systems Technology. The student will learn the fundamentals of data structures using the Java programming language. The students will learn to design, implement and use data structures to organize and store data in a computer so that it can be accessed and modified efficiently. Prerequisite: COP2800.

COP4656
Mobile Applications Development
4.00 credits
This upper division course, for students majoring in Information Systems Technology, covers project-oriented development of applications for mobile computing devices. Students will learn how to develop mobile applications utilizing memory management, user interface design, user interface building, input methods, data handling, network techniques, URL loading, and GPS and motion sensing. Students will develop a project that produces a professional-quality deployable mobile application. Prerequisites: COP 2800 and 4723.

COP4723
Database Administration
4.00 credits
This upper division course, for students majoring in Information Systems Technology, builds a deeper understanding of how databases work, including topics in database theory and architecture, data modeling, query languages, and security. Students will learn the fundamentals of SQL, including how to create and maintain database objects, and how to store, retrieve, and manipulate data, and the basics of managing the database environment. Prerequisite: CGS 1540.

COP4807
Web Programming with Java
4.00 credits
This is upper division course for students majoring in Information Systems Technology introduces students to the design, implementation and testing of web-based applications using the Java language. The student will learn about the three-tier architecture, the Model View Controller architecture, servlets, and Java Server Pages, JDBC/JPA, and Web Services. Prerequisite: COP3530.

COP4834
Data Driven Web Applications (Web Administration)
4.00 credits
This upper division course, for students majoring in Information Systems Technology, utilizes modern three-tier application development to build web-based applications that use relational database systems. Students will learn how to integrate client-side and server-side scripts and database server to build a transaction processing and report generating data-driven web application system. Prerequisites: COP 1334 and 4723.

COT4400
Design and Analysis of Algorithms
4.00 credits
This upper division course is for students majoring in the B.S. in Information Systems Technology or the B.S. in Electrical and Computer Engineering Technology programs. This course covers general techniques in algorithm design (such as divide-and-conquer, greedy method, dynamic programming, search and traversal techniques, branch-and-bound) in the context of problem domains like graph, sorting and optimization problems. Prerequisite(s): COP1334 or COP2270.

CTS1111
Linux +
4.00 credits
This course is designed to help students prepare for the CompTIA Linux+ Certification Exam and to teach the skills needed to administer GNU/Linux-based work-stations and servers. Students learn how to plan, install, maintain, document, and troubleshoot GNU/Linux operating system services. Prerequisite: CGS 1060 or computer experience is required.

CTS1120
Cybersecurity Fundamentals
4.00 credits
This course provides a foundation of knowledge in the information technology security field. The student will learn general network security concepts; compliance and operational security; threats and vulnerabilities; application,

data, and host security; access control and identity management; cryptography. Hands on training benefits the novice as well as the experienced network professional.No prerequisite but prior knowledge in Networking Technologies recommended.

CTS1131
A+ Computer Essentials & Support
4.00 credits

This is an intermediate level course designed for students preparing for A+ certification as a support technician. Students will learn how to install, configure, upgrade and replace computer system components; how to troubleshoot processors, memory, storage devices, adapter cards, peripherals and other system components; how to install, configure and troubleshoot operating systems, laptops, portable devices, printers, scanners, network devices, security measures and virtualization and cloud computing; and how to provide professional IT support and customer service. Prerequisite: CGS 1560.

CTS1134
Networking Technologies
4.00 credits

This course will provide an introduction to the technical areas of network connectivity, data communications, and communication protocols. Emphasis on understanding the foundation of networking technologies and data communication concepts. Topics covered will include an exploration of computer networking development, the OSI reference model, data signaling, data translation, standards for communications and data transmissions, network topologies and access methods.

CTS1145
Cloud Essentials
4.00 Credits

This course provides knowledge of Cloud computing concepts, services, architecture, system integration, connectivity, data center migration, administration, security, and technical support. Coverage includes preparation for the CompTIA Cloud Essentials certification examination.

CTS1328
Supporting Microsoft Clients
4.00 credits

This course is intended for students preparing for IT careers as desktop and network support specialists and server administrators, as well as candidates for industry certification. Students will learn how to implement and maintain a Microsoft client operating system. Prerequisite: CGS1060C or Previous Computer Experience .

CTS1437
Microsoft SQL Administration
4.00 credits

This is an introductory database administration course for students majoring in Internet Services, Database Technology Microsoft Database Administrator (DBA), Computer Programming and Analysis, and for students preparing for Microsoft DBA certification exams. Students will learn to install, administer, and optimize an enterprise-level database system, and how to use SQL to define databases, tables, stored procedures, and constraints. Recommended Preparation: CGS1540.

CTS1650
CCNA 1: Cisco Fundamentals
4.00 credits

This is the first course of the four-course Cisco curriculum that will prepare students for professional certification as a Cisco Certified Network Associate (CCNA). Students will learn networking concepts and practices, network terminology and protocols, the OSI reference model, cabling, cabling tools, routers, router and switch configurations, LAN/WAN topologies, IP addressing, and network standards.

CTS1651
CCNA 2: Routing and Switching
4.00 credits

This is the second course of the four-course Cisco curriculum that will prepare the student for professional certification as a Cisco Certified Network Associate (CCNA). Students will learn the architecture, components and operation of routers and switches, LAN (Local Area Networks) switch protocols and operations, VLANs (Virtual Local Area Networks), network routing protocols and concepts, static and dynamic routing, router and switch configuration and troubleshooting, and IP Address services. Prerequisite: CTS 1650.

CTS1800
Introduction to Web Page Development
4.00 credits

This introductory course covers the basics of web design and development. Students will learn about the World Wide Web., Hypertext Markup language (HTML), Extensible Hypertext Markup Language (XHTML), Cascading Style Sheets (CSS) and JavaScript using popular web authoring tools such as Dreamweaver. Students will also learn the basic functions of HTML, XHTML, CSS and JavaScript and how to develop and maintain a website. Prerequisite: CGS 1060.

CTS2143C
Server Administration
4.00 credits

This course is designed for students preparing for IT careers as server administrators, and focuses on server hardware and operating systems, system management and administration, security and disaster recovery, infrastructure and network services, data storage, and troubleshooting. This course is intended to prepare students for the CompTIA Server+ certification. Recommended Preparation: server operating systems experience.

CTS2148C
IT Project Management
4.00 credits

This course prepares students to effectively plan, implement, coordinate and manage small to medium size information technology-related projects. The concepts and tools covered in this course offers practical knowledge on managing project scope, planning and scheduling, risk assessment, and identification of project resources. This course also prepares students for the CompTIA Project+ examination, an industry standard IT certification.

CTS2153
Supporting Windows Users & Applications
4.00 credits
This is an advanced course designed to help students prepare for the Microsoft Certified IT Professional Support Technician Certification. Students will learn how to install, configure and manage Windows applications in a networked Windows environment and how to support enterprise users. Students will also deploy Windows and applications using various methods, resolve installation and compatibility issues, establish group policies and user profiles, perform support functions, troubleshoot user and application issues, secure the desktop and network from unauthorized use, install software upgrades and updates, perform systems monitoring and documentation, and develop customer service skills. Prerequisite: CTS 1328.

CTS2154
IT Help Desk Support
4.00 credits
This course is designed to prepare students as entry-level help desk computer support technicians. Students will learn skills needed to support computer users within the business organization and to provide exceptional customer service, including how to identify the appropriate tools, technologies, and processes to assess and meet computer user needs, essential communications skills, the IT function within the business organization, and career opportunities in computer user support. Prerequisites: CGS 1060, CGS 2108.

CTS2192C
Microsoft Azure Administration
4.00 credits
This course is intended for students preparing for IT careers as cloud administrators, as well as candidates for industry certification. Students will learn the administration skills and knowledge required to implement, manage, and monitor identity, governance, storage, and compute virtual networks in the Microsoft Azure cloud environment. Recommended preparation: CTS1145 or equivalent knowledge in Microsoft Azure Fundamentals.

CTS2303
Windows Server Administration
4.00 credits
This course is intended for students preparing for IT careers as network support specialists as well as server and cloud administrators. Students will learn the fundamental administration skills and knowledge required to deploy and support Windows Server core services. Recommended Preparation: CGS1060C and CTS1134 or equivalent knowledge.

CTS2306
Administering Windows Servers
4.00 credits
This course is intended for the student majoring in Information Technology (IT) as network support specialists and/or server administrators. The student will learn to administer the tasks required to maintain a Windows Server infrastructure. In addition, the student will be eligible for industry certification.Recommended Preparation: CTS1134 and CTS2303 or equivalent knowledge.

CTS2314
Network Defense and Countermeasures
4.00 credits
In this course, students will take an in-depth look at network defense concepts and techniques. Coverage includes network defensive concepts; policy development; problem solving; and implementation of firewalls, DMZ, VPN, IDS, NAT and proxy servers. Prerequisites: CTS1120 and CTS1134.

CTS2334
Windows Identity Services
4.00 credits
This course is intended for the student majoring in Information Technology (IT) as network support specialists and/or server administrators. The student will learn how to perform the advanced configuration tasks required to deploy, manage, and maintain a Windows Server infrastructure. In addition, the student will be eligible for industry certification. Recommended Preparation: CTS2303 and CTS2306 or equivalent knowledge.

CTS2375C
Cloud Infrastructure and Services
4.00 credits
This course helps students develop technical expertise in Cloud computing and prepares them for Cloud computing industry certification. Students will learn the essentials of Cloud computing, business security and compliance considerations, migrating to the Cloud, architecting a Cloud server, and how to troubleshoot Cloud services. Prerequisite: CTS 1145, Corequisite: CTS 2960.

CTS2433
Microsoft SQL Implementation
4.00 credits
A comprehensive course in learning how to design and implement enterprise database solutions using SQL. Working through a system of modular lessons and hands-on labs to comprehend SQL Architecture. Prerequisite: CTS 1437.

CTS2440
Introduction to Oracle: SQL and PL/SQL
4.00 credits
This is an introductory level course for students majoring in the Oracle Database Administrator and/or Solutions Developer programs. Students will learn the fundamentals of SQL and PL/SQL programming languages including the concepts of relational databases, how to create and maintain database objects, and how to store, retrieve, and manipulate data. Students will also learn to create PL/SQL blocks of application code that can be shared by multiple forms, reports, and data management applications. Prerequisite: CGS 1060.

CTS2441
Introduction to Oracle Database Administration
4.00 credits
This course is designed to give students who are preparing to become Oracle database administrators (DBA) a firm

foundation in basic administrative tasks. Students will learn through instructor-led learning, structured hands-on practices, and challenge-level exercise labs, the necessary knowledge and skills to set up, maintain and troubleshoot an Oracle database. Prerequisite: CTS 2440.

CTS2442
Intermediate Oracle Database Administration
4.00 credits
This is the second course in Oracle database administration. Students will learn basic network administration, including techniques to backup and to recover an Oracle database. The skills developed in this class will help prepare students for the Oracle database administrator (DBA) certification exam. Prerequisite: CTS 2441 .

CTS2444
Oracle Database Performance Tuning
4.00 credits
This course teaches students tuning steps which can be used to improve database performance. Students will learn through a combination of demonstrations, lectures, and lab exercises, gaining practical experience tuning an Oracle database. Students will also learn how to recognize, troubleshoot and resolve common performance related problems in administering an Oracle database. Prerequisite: CTS2442.

CTS2450
Business Intelligence: Analysis Services and Data Mining
4.00 credits
This is one of two sources in business intelligence designed to provide students with the skills necessary for advanced web-based applications. This course provides an introduction to various data mining and business intelligence techniques. Students will learn Analysis Services and Data Mining, including database and problem-solving skills. The course focuses on how these techniques are applied in the corporate environment to better manage business processes and how data analysis is utilized to achieve business success. Prerequisite: CTS1437 or CTS2433 or CTS2451.

CTS2451
Business Intelligence: Integration Services & Reporting
4.00 credits
This course is designed to provide students with the skills necessary for advanced web-based applications. Students will learn how to analyze business requirements to determine data access and data transfer requirements and how to apply database and problem solving skills to build data flow, design integration services, and reporting services. Prerequisite: CTS1437 or CTS2433.

CTS2463
C# Web Application Development
4.00 credits
This course is designed to provide AS degree students majoring in computer information technology, database technology, or Internet services technology with skills necessary for web-based programming. Students will learn C# programming for ASP.NET, including database skills and problem-solving, using modular design techniques. The skills developed in this class will help prepare students for MCTS certification. Prerequisites: COP 1332 or COP 1334.

CTS2466C
Internet of Things (IoT) Development with C#
4.00 credits
This course teaches the principles of Internet of Things applications development using the C# language. The student will learn how to write programs in C# and deploy the applications to devices running Windows IoT Core. The student will also develop advanced working programs that connect the devices to cloud services. Prerequisite: CEN2211.

CTS2652
CCNA 3: Advanced Routing and Switching
4.00 credits
This is the third course of the four-course Cisco curriculum that will prepare the student for professional certification as a Cisco Certified Network Associate (CCNA). Students will learn how to create virtual local area networks (VLANs), configure inter VLAN routing, and implement wireless network access and VLAN security. Prerequisite: CTS1651.

CTS2653
CCNA 4: Connecting Networks
4.00 credits
This is the fourth and final course of the four-course Cisco curriculum that will prepare the student for certification as a Cisco Certified Network Associate (CCNA). Students will learn how to implement a hierarchical network design, configure wide area networks (WANs), including point-to-point and frame relay connections, implement IP addressing services such as Network Address Translation, VPN and broadband solutions, monitoring and troubleshooting enterprise networks. Prerequisite: CTS 2652.

CTS2664
CISCO Certified Network Associate (CCNA) Security
4.00 credits
This course is designed for students specializing in Cisco Network Security. Students will learn how to master core security concepts, secure network infrastructure, manage secure access, recognize threats and vulnerabilities, and mitigate security threats. The course prepares students for the Cisco IINS Exam 210-260 certification.Prerequisite: CTS1651.

CTS2670
Check Point Security Administration
4.00 credits
This course, designed for students specializing in network security, prepares students for the Check Point Certified Security Administrator (CCSA) certification exam. Students will learn how to install security gateways; configure rules

on servers; create a rule base; assign user permissions; schedule backups and upgrades; monitor and troubleshoot common network traffic.Prerequisite: CTS1134, CTS1120.

CTS2960
Cloud Computing Capstone
4.00 credits
This course requires students to demonstrate their competence to analyze, design, develop, and test a cloud based complex system. Each student will create and present a cloud based solution proposal that includes: design documentation, implementation plan, cloud resources required, projected cost analysis, basic security plan and project test plan to create an operational cloud based system solution. Must be taken during the last semester before graduation and with a departmental permission. Prerequisite: Departmental Approval.

CTS3452
Business Intelligence
4.00 credits
This course is for students majoring in Data Analytics. Students will learn how to organize, manage and analyze massive amounts of data on servers. Students will learn how to create reports and present information to optimize business decisions and performance.

CTS4935C
Networking Capstone
4.00 credits
This upper division course, for students majoring in the BS-IST Networking concentration, requires students to demonstrate their competence to analyze, design, develop, and test an information system in a team environment. Each team will create and present an information technology (IT) solution proposal that includes design documentation, implementation plan, and project test plan to create an operational information system. Students will also implement a proof-of-concept in a real or simulated/virtualized environment. Prerequisite(s): Student must be classified as a senior and have completed at least 3 of the 5 concentration courses to obtain departmental approval.

DIG1111
Digital Character Design
3.00 credits
This course, for students majoring in Animation and Game Art, covers the observation and translation of three-dimensional form into two-dimensional drawings. The student will learn the interpretation of the human body, based on major masses organized by gestural lines.The student will create original characters and create design elements to support them.Students will transition to draw on digital tablets.Knowledge or proficiency in Adobe Photoshop recommended.

DIG1132
Digital art and Design
3.00 credits
This course is for students majoring in Animation and Game Art and introduces environmental design. Students will learn the concepts, hardware, and software related to digital image acquisition, image editing, manipulation, color management basics, masking, layering, retouching, scanning and output, and color theory as it relates to digital media. Knowledge or proficiency in Adobe Photoshop and Illustrator recommended.

DIG1302
3D Modeling
4.00 credits
This course, for students majoring in Animation & Game Art introduces students to the basic tools, techniques and applications for feature 3D animation and game development Students will learn how to manipulate objects, build models, employ lighting, design movement, work with materials and textures and render a final image. Prerequisite: DIG1111.

DIG1430
Storyboarding
3.00 credits
This course is for students majoring in Animation and Game Art. It introduces the necessary tasks in the storytelling phase of an animation project. Students will learn how to develop and design visual storyboards and how to sell their storyboard ideas.

DIG1437
Narrative Storytelling
3.00 credits
This course is for students majoring in Animation and Game Art. It introduces the conceptual structure and design of visual storytelling. Students will learn principles of animation, mechanics, cinematics, character development, structure of story and adapting movement for the animation medium. Pre/Corequisite: DIG 1430.

DIG1705
3D Programming 1
4.00 credits
This course, provides students with a foundation in 3D programming which will allow them to develop programs using popular graphics libraries such as DirectX, OpenGL, and GLSL. Gaining a strong foundation in math (including advanced concepts of algebra and vector math) is suggested prior to enrolling in this course. Students will learn basic image progressing, geometric transformations, geometric modeling of curves and surfaces, 3D viewing, shaders, and ray tracing.Prerequisite: COP2335 and MAC1105.

DIG1710
Introduction to Game Development
4.00 credits
This course is an introduction to the computer game design and development industry. Gaining strong foundational writing skills and a knowledge of word processing and presentation software is suggested prior to enrolling in this course. Students will learn about game development careers, game development and design processes, marketing themes, copyright laws, game company structures, programming languages used

by different types of games, the impact of video games on modern society, general programming concepts, how to create game design documentation, and how to use common game development environments.

DIG1772C
Introduction to Virtual & Augmented Reality Technologies
3.00 credits
This course introduces students to basic concepts, history and tools commonly used for stereoscopic image acquisition and immersive technologies. Students will learn origins of Virtual Reality (VR) and its current role in the industry, its applications and opportunities and how to generate and manipulate VR imagery. Prerequisite: DIG 1729C.

DIG1729C
Game Engines
4.00 credits
This course is an introduction to game engines and their uses. Students will learn the basic techniques for creating interactive applications and how these techniques can be used for Virtual Reality (VR) and Augmented Reality (AR) projects.

DIG2113
Post Production & Editing
4.00 credits
This course, for students majoring in Animation &Game Art, equips students with skills required in post-production editing. Students will learn how to combine computer-generated imagery with matte painting and backgrounds and the core principles of proper compositing, color correction, and editing. Prerequisite: DIG1430.

DIG2304
Character Animation 3
3.00 credits
This course, for students majoring in Animation &Game Art, equips students with the skills needed to create animated characters. Students will learning-depth character design, development, rigging, and animation techniques, how to create segmented and solid model mesh of bipeds and quadrupeds, and techniques used to create facial expressions and lip syncing. Prerequisite: DIG2790

DIG2318
Animation Studio 1
3.00 credits
This course is for students majoring in Animation and Game Art. Students will learn to design and implement a project involving computer animation, game production, VFX or scientific/architecture visualization. Students will work in collaboration with faculty and industry mentors. Prerequisite: DIG1430, DIG1302 Pre/Corequisite: DIG2113

DIG2319
Animation Studio 2
3.00 credits
This is a capstone course for students majoring in Animation and Game Art. Building on skills learned in Animation Studio 1, students will learn enhanced skills in the areas of 3D modeling, texturing,lighting, and animation. Working in groups, students develop a project plan and produce a short, 3D animated movie. Prerequisite of CAP 2048 or DIG 2318 with a grade of "C" or higher.

DIG2370
Character Modeling & Rigging
4.00 credits
This course focuses on the modeling and rigging of characters for performance. The student will solve complex issues of character articulation with an emphasis on skeleton, skin, and binding techniques. Prerequisite:DIG 1302.

DIG2391C
Animation Studio 3
4.00 credits
This is a capstone course for students majoring in Animation and Game Art. Students develop a project plan and produce a short, 3D animated movie. Students also create a website for the project, social media and market campaigns, and submit the short animated movie to festivals. Prerequisite: CAP 2920C or DIG 2318.

DIG2396C
Motion Capture
4.00 credits
This course is for students majoring in Animation and Game Art. Students will learn to digitize motion and clean-up and editing techniques. They will also learn how to set up motion capture and shooting, data tracking, skeleton retargeting, as well as animation correction and enhancements. Pre/Corequisite: DIG1302.

DIG2626
Artificial Intelligence for Game Development
4.00 credits
This course covers key aspects of Artificial Intelligence (AI) for students majoring in game development. Gaining a strong foundation in math (including advanced concepts of algebra and vector math) is suggested prior to enrolling in this course. Students will learn the origins and history of Artificial Intelligence, current and future uses of AI, AI methods algorithms such as: path planning, stimulus-response agents, agent architectures, decision-making systems, game trees, neural networks, and genetic algorithms. Students will create and modify existing games to include an AI system. Prerequisites: CAP 2047 and COP 2335.

DIG2712
Level Building & Design
4.00 credits
This is a core course for students majoring in game development and design. Gaining a good foundation in math is suggested prior to enrolling in this course, a basic understanding of vector math and advanced concepts in algebra is preferred. Students will learn how to develop game environments in industry standard engines, how to create documentation to plan out effective game play experiences, and the requirements to create virtual worlds. Prerequisite: CAP2047, COP2335, and DIG1430.

DIG2717C
Game Systems Design
4.00 credits
This is a core course for students majoring in game development and design. Students will learn how to develop game systems such as combat, economy, and social society. Students will also learn how to model and test systems before incorporating them into development, and how to use probability to create more interesting gameplay. Prerequisites: CAP 2047, DIG 1712, and MAC 1105.

DIG2771
3D Programming 2 - Virtual Reality
4.00 credits
This course is for students majoring in game development and covers key aspects of advanced 3D programming. Students will learn how to program special effects and create realism for games by using: illumination, shading, reflections, collision detection/ reaction, light mapping, sound, music, alpha blending, fog, and applying basic Newtonian physics to objects. Prerequisite: DIG1705 Pre/Corequisite: COP2335

DIG2776C
Virtual Reality Platform Development
4.00 credits
Students will learn the fundamentals of Virtual Reality (VR) gaining practical experience using state of the art technology. This course mixes together knowledge from a variety of correlated topics, including computer graphics, tracking systems, and perceptual psychology. Prerequisite: DIG1729C, DIG1772C.

DIG2777C
Augmented Reality Platform Development
4.00 credits
This course provides a comprehensive curriculum that targets the key areas of augmented reality (AR). Students will learn how to enhance real life objects and environments with digitally generated image overlays. Prerequisite: DIG1729C, DIG1772C.

DIG2790
Texturing & Environment Design
4.00 credits
This course is for students majoring in Animation & Game Art. Students will learn advanced 3D animation job skills used in creating 3D feature animation and game development, including advanced texturing, lighting and rendering a final image. Prerequisite: DIG1302

Criminal Justice_& Related Technologies

CCJ1010
Introduction to Criminology
3.00 credits
Theories and causes of criminal and delinquent behavior, including its variations, ramifications, explanations and measures of prevention, control and treatment.

CCJ1020
Introduction to Criminal Justice
3.00 credits
History, development, philosophy, constitutional aspects, introduction to and survey of the agencies and processes involved in the administration of criminal justice in a democratic society.

CCJ1191
Human Behavior in Criminal Justice
3.00 credits
Human behavior and how it relates to the duties and responsibilities of the criminal justice practitioner.

CCJ2053
Criminal Justice Ethics and Professionalism
3.00 credits
This course will provide students with an overview of moral, ethical, and professional issues and dilemmas facing individuals and organizations within the criminal justice system. Students will learn to define and implement ethical and professional standards by examining what they will be confronted with and how to respond appropriately. Prerequisite: PHI 2604.

CCJ2358
Criminal Justice Reporting
3.00 credits
This course prepares students through instruction and practice to properly prepare written reports common to the criminal justice community. Students will learn a variety of criminal justice scenarios presented and students will be instructed as to proper report format and presentation. Prerequisite: ENC 1101

CCJ2650
Narcotics and Drug Education
3.00 credits
The general problems created by illegal use of narcotics and dangerous substances, with emphasis upon classification, description and history of drugs, etiology of addiction, extent of drug use and its relationship to criminal behavior and methods of control.

CCJ2760
Cannabis Policy & Regulation
3.00 credits
In this course students will gain knowledge of the history, the control, and the regulations of cannabis as a recurring legal and social problem. Course completion will result in an understanding of the changing state-level law reforms, the ability to analyze the consequences of new legal, political, and practical issues, with a particular focus on the implications and impact of Florida's new cannabis laws.Students will examine the social and historical backdrop of cannabis usage and regulation, and will assess the reforms and debates impacting the control and regulations of cannabis distribution and use in Florida.

CCJ2949
Co-op Work Experience 2: CCJ
3.00 credits
This is a course designed to continue training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-op Work Experience. Students will be assigned specific course prefixes related to their

academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval.

CCJ3032
Crime and the Media
3.00 credits
An examination of the inter-relationship among the mass media, crime, and criminal justice. Includes media and the social construction of crime and criminal justice; media effects on attitudes toward crime and justice; and media as a cause of crime.

CCJ3663
Female Crime and Delinquency
3.00 credits
A study of females in society and the criminal justice system. Includes the female delinquent, females as criminals, females as victims, and the impact of females as professionals in the Criminal Justice System.

CCJ3666
Victimology
3.00 credits
A comprehensive study of victimization; analysis of contemporary victim-assistance and victim compensation programs and related research; review of the historical importance of victim restitution as a basis for punitive criminal law.

CCJ3700
Methods of Research in Criminal Justice
3.00 credits
Evaluates the application of research methodologies as applied to the study of Public Safety Management.

CCJ4054
Ethics in the Criminal Justice System
3.00 credits
An in depth study of moral, ethical, legal, and professional issues and dilemmas facing individuals and organizations within the Criminal Justice systems.

CCJ4450
Criminal Justice Administration
3.00 credits
An analysis of leadership styles, management principles, supervisory techniques, policies and procedures within Law Enforcement agencies.

CCJ4641
Organized Crime
3.00 credits
An analysis of organized crime in today's society, as well as, past, present, and future perspectives of the topic.

CCJ4651
Drugs and Crime
3.00 credits
An analysis of the interrelationship among drug usage, crime and the criminal justice system.

CCJ4660
Crime, Violence, and Schools
3.00 credits
An examination of comprehensive and proven theoretical models of explaining, predicting, and preventing school-based violence.

CCJ4678
Race, Gender, Ethnicity & Crime
3.00 credits
Focuses on the challenges and controversies of managing and treating special offender populations such as juvenile, elderly, disabled, mentally ill, pregnant inmates, etc.

CJC1000
Introduction to Corrections
3.00 credits
A comprehensive view of the historical and philosophical treatment programs and developments in the field of juvenile and adult corrections. Emphases on understanding the offender in the correctional system; an examination of the correctional client, the non-institutional correctional systems, agencies and recidivism.

CJC1162
Parole and Probation
3.00 credits
The history, current practices and the consideration of philosophical concepts in the areas of probation and parole.

CJC4163
Advanced Probation & Parole
3.00 credits
A study of the process in which a convicted person can be released into society by means of probation or parole.

CJC4311
Contemporary Issues and Trends in Corrections
3.00 credits
Focuses on and analyzes of major changes in incarceration philosophies and policies, prison populations, and operational costs.

CJE1640
Crime Scene Technology 1
3.00 credits
This is an introductory course in Crime Scene Technology. Students will learn the techniques, materials and instrumentation used in securing, searching, recording, collecting, and examing physical evidence. There will be special emphasis on the tools, instruments, and techniques used in the studies of crime scene reconstruction, fingerprints, firearms, tool marks, and blood stain pattern analysis.

CJE1642
Crime Scene Technology 2
3.00 credits
This course covers advanced principles, theories and applications in crime scene technology. Students will learn specialized collection procedures of weapons, arson, gunshot residue, blood spatter, and recovery of buried bodies and surface skeletons are also included. Data analysis, reporting and plan of action development are emphasized. Prerequisite. CJE 1640.

CJE1673
Crime Scene Photography 1
3.00 credits
This is an introductory study of the history of photography including basic photography skills. Students will learn camera operations, exposure control, relational photographs and flash control for crime scene and evidentiary documentation.

CJE1680
Introduction to Computer Crimes
3.00 credits
This course provides the student with an overview of crimes involving the use of computer technology and the internet. The course will cover computer related crimes, how they are committed and investigated, computer crime scene management, and the legal issues involved in the prosecution of computer crimes and legislation enacted to protect the public.

CJE1772
Crime Scene Photography 2
3.00 credits
This course expands upon concepts; knowledge and skills taught in Crime Scene Photography 1. Students will learn to include specialty light sources, darkroom techniques and procedures, filters and specialized equipment including black and white and color enlargers. Prerequisite: CJE 1673.

CJE2600
Criminal Investigation
3.00 credits
Fundamentals of criminal investigation, theory and practice, including crime scene search; preservation, collection and transportation of physical evidence interviewing, interrogating; statement taking; and case preparation, with investigation of specific offenses; relationship with the police science laboratory.

CJE2644
Crime Scene Safety
3.00 credits
This course provides the fundamentals of protecting and preserving the crime scene and identifies the essential techniques of properly handling physical evidence. Students will learn the understanding of various hazards and safety issues and provides basic techniques for preserving evidence as it relates to various hazardous chemical and biological materials.

CJE2671
Basic Fingerprinting
3.00 credits
This course provides a foundation in basic fingerprinting. Students will learn topics which include classification, identification, filing and rolling of fingerprints, problems and practices associated with post mortem fingerprinting and proper presentation of fingerprint evidence.

CJE2672
Fingerprint Development
3.00 credits
This course provides a continuation of CJE 2240 Basic Fingerprinting. Students will learn different methods involved in detection, enhancement, and recovery of latent fingerprints. Techniques will involve chemical and mechanical methods on substrates and evaluation for proper application in both theory and practices. Prerequisite: CJE 2671.

CJE3110
Law Enforcement Systems
3.00 credits
An analysis of the different law enforcement systems in Criminal Justice. Focuses on the different law agencies and their mission at the local, state, and federal levels.

CJE3115
Police and Society
3.00 credits
Identifies police roles and philosophies, the nature of police work, community policing, and the debates pertaining to police discretion, community relations, and police misconduct.

CJE3444
Crime Prevention
3.00 credits
Provides students with strategies of how to develop, implement and maintain a crime prevention program. Includes the history of crime prevention, homeland security programs, public speaking, media relations, crime against the elderly, sexual assault programs, youth crime prevention, and telemarketing fraud and scams.

CJE3574
Interpersonal Communications for Law Enforcement
3.00 credits
An examination of the communication process and how it affects the relationship between the police and the people they serve.

CJE4615
Advanced Criminal Investigations
3.00 credits
The understanding, interpretation, and application of criminal investigative procedures in the U.S., based upon constitutional issues and legal precedent.

CJE4647
Advanced Crime Scene Technology
3.00 credits
An application of crime scene investigation techniques to include recording, preserving, and documenting a crime scene.

CJE4648
Crime Scene Safety
3.00 credits
A study of how to properly handle crime scenes and hazardous crime scenes relative to various hazardous materials, to include chemical and biological.

CJE4650
Advanced Crime Scene Investigations
3.00 credits
A study of advanced search techniques, crime scenes reconstruction, computer sketching, laser mapping. DNA evidence, trajectory, and blood spatter evidence.

CJE4668
Computer Crime
3.00 credits
Synthesizes knowledge of crime elements, legal issues, investigative techniques, and computer skills used in the prevention and investigation of computer-generated crime.

CJE4675
Modern Fingerprint Technology
3.00 credits
A study of the detection, preservation, and removal of fingerprint evidence pertaining to latent, patent, and plastic prints.

CJJ2002
Juvenile Delinquency
3.00 credits
An analysis of the theories and causes of juvenile delinquent behavior. The role of the three components of the juvenile justice system (Police, Court, Corrections) and their impact on prevention and rehabilitation.

CJL1000
Street Law
3.00 credits
This course will cover the evaluation, debate, and critical analysis of law and legal issues that affect individuals, their families, and communities. Students will learn about practical aspects of civil, criminal, constitutional, family, immigration, and consumer law in a diverse society with an orientation toward civic involvement in the local community.

CJL1100
Criminal Law
3.00 credits
Historical background and foundations of American criminal law, including United States Constitutional requirements, Federal and State court organization and jurisdiction, criminal law basics, Florida statutes, rules of evidence and procedure.

CJL2062
Constitutional Law and Legal Procedure or Evidence
3.00 credits
An examination of the United States and Florida Constitutions, with emphasis on leading cases dealing with arrest, search and seizure, confessions and the rules of evidence.

CJL2610
Courtroom Presentation
3.00 credits
This course introduces students to proper courtroom presentation and procedures. Students will learn the appropriate techniques for proper attire, grooming, speaking, listening and stress control during courtroom proceedings, visual aid preparation, and presentations of all evidence (commonly referred to as "scientific evidence") collected at the crime scene are also included.

CJL3044
Civil Law
3.00 credits
A study of civil liability for damages caused by breach of an imposed duty, which includes intentional torts, negligence, strict liability, product liability, civil nuisance, defamation, civil wrongful invasion of privacy, and damages.

CJL3564
Judicial Policy Making
3.00 credits
An analysis of the components, policies, and procedures of the court structure of the United States and various components. An analysis of local, state, and federal courts in the Criminal Justice System.

CJL4133
Criminal Evidence
3.00 credits
A study of evidentiary principles and rules of evidence, and their application in a courtroom setting.

CJL4514
Criminal Sentencing
3.00 credits
An examination of the various pre-trial and post-trial community based treatment and supervision programs.

DSC1002
Terrorism
3.00 credits
This course is a study of domestic and international terrorism as it relates to domestic security. Through focused topics, students will learn about terrorist organizations and motivations, investigating terrorism threats, conducting vulnerability assessments of potential terrorist targets, and the role of government agencies in response to a terrorist incident and recovery afterwards.

DSC1006
Introduction to Homeland Security
3.00 credits
This course will introduce students to the vocabulary and important components of Homeland Security. Students will learn about the agencies associated with Homeland Security and their interrelated duties and relationships.

DSC1590
Introduction to Intelligence Studies
3.00 credits
This course will provide a comprehensive overview of intelligence for the purpose of national security for the entry-level intelligence practitioners and beginning students. The student will learn security issues, define critical terms and review the history of intelligence as practiced in the United States.

DSC2242
Transportation and Border Security
3.00 credits
This course introduces students to global supply chains and intermodal transportation systems. Students will learn the threats to these systems, their vulnerabilities and potential for terrorist attacks, and the measures being undertaken to secure them.

DSC2501
Effective Communication Skills for Security Professionals
3 credits
This course will provide a focused review and practice for effective writing within the intelligence community. The student will learn the basic elements necessary for effective writing in any situation or any type of report specifically within the intelligence community. It is designed for the entry-level criminal justice practitioner and beginning student interested in entering the field. Prerequisite: ENC1101.

DSC2590
Intelligence Analysis and Security Management
3.00 credits
This course examines intelligence analysis and its indispensable relationship to the security management of terrorist attacks, man-made disasters and natural disasters. Students will learn substantive issues regarding intelligence support of Homeland Security measures implemented by the United States and explore how the intelligence community operates.

DSC4012
Terrorism
3.00 credits
A study of domestic and international terrorism, using current events and past incidents for analysis, to include the events, the responses, and the outcomes. Prerequisite: CCJ 1020.

DSC4014
Domestic & International Terrorism
3.00 credits
A study of the causes and effects of domestic and international terrorist events.

DSC4214
Catastrophic Event Response Management
3.00 credits
An analysis and evaluation of domestic and international terrorism, the events, the responses, and the outcomes.

DSC4215
Emergency Planning & Security Measures
3.00 credits
A study of empirical vs theoretical approaches; human behavior in disasters; myths and realities; group disaster behavior; community social systems, and disaster; cultures, demographics and disaster behavior distinctions; and model-building in sociological disaster research.

FES4003
Public Policy in Emergency Management
3.00 credits
An exploration of public policy used in emergency management, including how policy is made and conveyed.

FES4823
Integrated Emergency Management Planning Systems
3.00 credits
An analysis of technology applications and its role in emergency planning, responses, recovery, and mitigation.

Dance

DAA1100
Modern Dance 1
2.00 - 3.00 credits
Beginning exploration of techniques, creative aspects, and theoretical concepts of modern dance which includes but is not limited to proper body alignment and mechanics of breathing and phrasing, verbal movement vocabulary, including structural improvisation. No previous experience required.

DAA1101
Intermediate Modern Dance
2.00 - 3.00 credits
Further development of modern dance techniques, creative aspects, and theoretical concepts emphasizing components based on Graham Cunningham and Limon techniques. Prerequisite: Completion of DAA 1100or permission of the department.

DAA1104
Modern 1
2.00 - 3.00 credits
Beginning exploration of techniques, creative aspects, and theoretical concepts of modern dance which includes but is not limited to proper alignment and mechanics of breathing and phrasing, verbal and movement vocabulary, including structural improvisation, and exercises utilizing Laban's movement analysis. No previous experience required. Dance Majors only.

DAA1105
Intermediate Modern
2.00 - 3.00 credits
Further development of modern dance techniques, creative aspects, theoretical concepts emphasizing components based on Graham, Cunningham and Limon techniques. Prerequisite: Completion of DAA 1104 or permission of the department. Dance Majors only.

DAA1200
Ballet Dance 1
2.00 - 3.00 credits
Designed to provide experiences relative to the various aspects of ballet techniques and terminology at a primary level.

DAA1201
Intermediate Ballet Dance
2.00 - 3.00 credits
The continued development of various aspects of ballet technique terminology. Prerequisite: DAA 1200 or permission of the department. May be repeated for credit.

DAA1204
Ballet 1
2.00 - 3.00 credits
Beginning exploration of techniques and theoretical concepts of ballet increasing awareness of proper alignment, balance, coordination and application of various musical meters. No previous experience required. Dance Majors only.

DAA1205
Intermediate Ballet
2.00 - 3.00 credits
Continuing exploration of techniques and theoretical concepts of ballet placing further emphasis on precision of lines and exactness of movement. Prerequisite: DAA 1204 or permission of the department. Dance Majors only.

DAA1290
Ballet for the Theater 1
1.00 - 3.00 credits
Music Theatre students will be receiving a systematic training of the body through a progressive study of the traditional classic ballet vocabulary. Stress is on placement, flexibility and coordination.

DAA1291
Ballet for the Theater 2
1.00 - 3.00 credits
A continuation of the systematic training of the body through a progressive study of the traditional classic ballet vocabulary. More bare exercises and simple adagio jumps and turns will further the concentration on flexibility and coordination. Prerequisite: DAA 1290.

DAA1330
Afro-Caribbean Dance
1.00 - 3.00 credits
Designed for those students wishing to learn the dance skills and techniques of the dance from Africa and the Caribbean.

DAA1504
Jazz Dance 1
2.00 - 3.00 credits
This course is designed to introduce the student to the vocabulary and technique of jazz dance, incorporating a fusion of styles from popular, Afro-Caribbean, and contemporary modern jazz choreographers. For majors only. Audition required. May be repeated for credit.

DAA1680
Repertory 1
2.00 - 3.00 credits
A special workshop course designed to provide the student with experience relative to the performance of dance concerts. Works choreographed by students as well as faculty will be featured.

DAA2106
Modern 2
2.00 - 3.00 credits
Further development of modern dance techniques, creative aspects and theoretical concepts emphasizing components based on Graham, Cunningham and Limon techniques. The use of improvisation as an introduction to basic principles of form and their application to dance composition will be emphasized. Prerequisite: DAA 1104 or permission of the department. Dance Majors only.

DAA2107
Advanced Modern 2
2.00 - 3.00 credits
Further development of modern dance techniques, creative aspects and theoretical concepts based on Graham, Cunningham, and Limon techniques. Prerequisite: DAA 2106 or permission of the department. May be repeated for credit. Dance Majors only.

DAA2202
Ballet Dance 2
2.00 - 3.00 credits
The continued development of various aspects of ballet technique and terminology. Prerequisite: DAA1201 or permission of the department.

DAA2206
Ballet 2
2.00 - 3.00 credits
Continuing exploration of techniques and theoretical concepts of ballet placing further emphasis on precision of line and exactness of movement. Prerequisite: DAA 1204 or permission of the department. Dance majors only.

DAA2207
Advanced Ballet
2.00 - 3.00 credits
Continuing exploration of techniques and theoretical concepts of ballet placing further emphasis on precision of line and exactness of movement. Prerequisite: DAA 2206 or permission of the department. May be repeated for credit. Dance majors only.

DAA2570
Modern Dance for Theater 1
1.00 - 3.00 credits
Music theatre students will be receiving training of the body through the study of modern dance vocabulary as developed by the originators of this dance form in the twentieth century. In the first semester concentration will be put on alignment, rhythm and phrasing, introducing the students to the fundamentals of jazz techniques.

DAA2571
Modern Dance/Jazz for the Theater 2
1.00 - 3.00 credits
Music theatre students will continue receiving training of the body through the study of modern dance vocabulary. In the second semester emphasis will be on developing carriage, rhythm and more advanced phrasing through jazz techniques and styles. Prerequisite: DAA 2570.

DAA2610
Dance Composition and Improvisation 1
2.00 - 3.00 credits
Individual experience in developing movement phrases and combinations based on solving problems within a form and a movement framework, as well as the movement imagery designed to develop the dancer's creative imagination. Individuals will experience composition using the basic elements of movement theory in an improvisational framework.

DAA2611
Dance Composition and Improvisation 2
2.00 - 3.00 credits
Further exploration of choreographic tools with emphasis on group forms, usage space, and orchestrations of movement. The formal study of compositional

principles of choreographic invention with emphasis on developing personal style. Prerequisite: DAA 2610.

DAA2680
Repertory 1
2.00 - 3.00 credits
Dance works in both ballet and many different styles of modern and ethnic dance vocabularies are studied. Works include both standard repertory and commissioned dances. Students work with choreographers, directors and reconstructors of classic works, giving the dancer the experience of being choreographed on and being directed in repertory works. The works learned are performed by the students in workshop and public performances throughout the year.

DAA2681
Repertory 2
2.00 - 3.00 credits
A continuation of DAA 2680. Prerequisite: DAA 2680.

DAN2100
Dance Appreciation
3.00 credits
This course provides an overview of dance as an art form, entertainment, and social activity and includes works from the western canon to examine its significance from ancient times to the 21st century. Students will analyze dance genres such as ballet, modern dance, jazz dance, and world dance forms, exploring their connections to literature, music, and philosophy while considering the roles of dancers, choreographers, and audiences. Through this study, students will develop critical thinking skills and gain understanding of how dance reflects and influences culture across time periods and societies.

DAN2130
Dance History 1
3.00 credits
In this course, students will engage in a comprehensive study of the origins and development of dance as an art form, tracing its evolution from its inception in primitive cultures to the present day. The course will explore the cultural, historical, and social contexts that shaped the various styles and techniques of dance throughout history. Students will analyze and critique significant dance works, including those from the Western canon, to gain a deeper understanding of the artistic, aesthetic, and expressive elements of dance. Writing Intensive Course.

DAN2131
Dance History 2
3.00 credits
In this course, students will examine the dance through the ages, from the stone age participatory dances to the spectator dances of the orient, the classical period in Greece and Rome, and the early Middle Ages, including works from the Western canon. The course will conclude with the historical development of dance forms from the late Middle Ages through the renaissance into the 20th century, with an emphasis on the dance as a spectator event and a participatory art in relationship to other art forms, including works from the Western canon. Prerequisite: DAN 2130.

DAN2430
Laban Movement Analysis 1
3.00 credits
An introduction to Rudolf Laban's basic principles of effort, shape and space harmony. The class will explore ways of varying movement dynamics, and will assist the student in discovering the many ways that the body can shape itself and project into space. Prerequisite: Permission of department chairperson.

DAN2431
Laban Movement Analysis 2
3.00 credits
A further study of Laban's basic principles, this course provides insights into one's personal movement style and increases awareness of what movement communicates and expresses. Prerequisite: DAN 2430 or permission of department chairperson.

DAN2630
Literature & Materials of Music for Dance 1
2.00 - 3.00 credits
This course serves to develop the personal musical interest of choreographers and dance artists. The composition and performance of simple musical works will be taught. Actual hands on skills with dance accompaniment will be developed.

Dental Hygiene

DEH1002
Pre-Clinical Dental Hygiene
2.00 credits
Introduction to procedures relevant to the practice of dental hygiene. Corequisites: DEH 1002L, 1133, 1133L

DEH1002L
Pre-Clinical Dental Hygiene Laboratory
2.00 credits
Laboratory for DEH 1002. Corequisite: DEH 1002.

DEH1133
Dental Anatomy, Histology and Physiology
2.00 credits
This course covers specific tissues of the oral cavity, head, neck and their embryonic development. The students will learn structure, morphology and function of the primary and permanent dentitions.

DEH1400
General and Oral Pathology
3.00 credits
Processes of inflammation, necrosis, retrograde changes, diseases caused by bacteria, viruses, and other organisms. Emphasis will be placed on differentiating between normal and abnormal conditions of the oral cavity. Prerequisite: DEH 1130, DES 1200.

DEH1710
Oral Health Literacy
1.00 credit
Students will learn the concepts of oral health literacy. Students will also identify how to improve patient's oral health literacy and the barriers that impede oral health care.

DEH1720
Preventative Dentistry
2.00 credits
This is a foundation course in dental hygiene preventive care. Students will learn the concepts of oral health and how to prevent future disease. Students will become engaged in developing their own prevention strategies by selecting with a rationale, appropriate oral health devices used for self-care. A.S. degree only.

DEH1800
Dental Hygiene 1
2.00 credits
Theory of the removal of hard and soft deposits from the teeth, and other related postoperative and preventive procedures. Prerequisites: DEH 1002, 1002L, 1133; corequisite: DEH 1800L.

DEH1800L
Dental Hygiene 1 Clinic
3.00 credits
Clinic for DEH 1800. Corequisite: DEH 1800. Prerequisite: DEH 1002, 1002L; corequisite: DEH 1800.

DEH1802L
Dental Hygiene 2 Clinic
1.00 credits
Continuation of clinical skills from DEH 1800L. Prerequisites: DEH 1800, 1800L.

DEH1804L
Dental Hygiene 3 Clinic
1.00 credits
Designed to further student's knowledge and skills through clinical experiences more difficult than those experienced in DEH 1802L. Prerequisite: DEH1802L.

DEH1811
Professional Issues
2.00 credits
This course is designed to provide the dental hygiene student with an understanding of the political, social, environmental and professional issues that affect the practice of dental hygiene. These issues include: a) cultural diversity, b) legal and ethical responsibilities, c) sexual harassment, d) child abuse, e) problem solving, and f) communication style. Corequisite: DEH 1800L.

DEH1840L
Advanced Radiographic & Clinical Assessment Techniques
1.00 credits
A laboratory course introducing advanced digital radiographic techniques, the intraoral camera, periodontal probing and dental charting software and other clinical assessment tools. These skills will enable the student to provide comprehensive patient treatment and enhance their ability to interpret intraoral conditions.

DEH1940L
Dental Hygiene 1 Optional Learning Support
1.00 credits
DEH 1940L runs concurrently with DEH 1800L and is designed to enhance student's basic clinical skills and critical thinking abilities. Special emphasis is placed on collaborative learning techniques, effective decision-making, proper time management and self-assessment as students interact with their peers and apply their skills and knowledge in the treatment of clinical patients.

DEH2202
Nutrition and Dental Health
2.00 credits
This course provides a study of nutrients, their nature, source, and utilization. Students will learn the relationship between diet and oral health care and oral manifestations of nutritional deficiencies.

DEH2300
Pharmacology and Pain Control
1.00 credits
This course introduces the student to a broad range of Pharmacological concepts including drug categories, drug action, and adverse drug effects. Dental prescriptions such as the antibiotics, antifungals and antivirals will be studied. Students will learn the common medical conditions affecting dental hygiene care, such as cardiovascular disease, endocrine and neurological disorders as well as their drug management will be examined. Prerequisite: DES 1044; corequisite: DEH 1802L, 2300L.

DEH2300L
Pharmacology and Pain Control Laboratory
1.00 credits
This course is designed to prepare the dental hygiene student for the safe and effective administration of local anesthesia. Students will learn about the psychology of pain management, pharmacology of anesthetic agents, emergency precautions, and are view of anatomy and physiology as they relate to the administration of anesthetic agents. This course will include online and clinical instruction. Co-requisite: DEH2300.

DEH2602
Periodontology 1
1.00 credits
This course will introduce the student to the concepts of non-surgical periodontal therapy, risk factors in periodontal diseases, classifications of periodontal diseases, the components of the comprehensive periodontal assessment and care plan. Ultrasonic periodontal debridement will be studied. Furthermore, the course will include the study of behavior motivation, the dental hygiene human needs conceptual model, the phases of self-care education and the importance of case presentation in modifying client self-care.

DEH2603
Periodontology 2
2.00 credits
Etiology, classification, diagnosis, treatment and maintenance of the periodontal patient. Prerequisites: DEH 1400, DEH 1802L.

DEH2603L
Periodontology 2 Laboratory
1.00 credits
Laboratory for DEH 2603. Corequisite: DEH 2603. Prerequisite: DEH 1400; corequisite: DEH 2603.

DEH2701
Community Dental Health 1
3.00 credits
Public Health Dentistry and the role of the dental hygienist. Prerequisite: DEH 1804L.

DEH2702L
Community Dental Health 2 Clinic
2.00 credits
Provides the student an opportunity for application of the principles of public and community dentistry. Corequisite: DEH 2701.

DEH2806
Dental Hygiene 4
2.00 credits
This course is a continuation of dental hygiene theory and practice. Students will learn the process and procedures for gingival curettage and root planning. Prerequisite: DEH1804L; Corequisite: DEH2806L

DEH2806L
Dental Hygiene 4 Clinic
4.00 credits
Clinic for DEH 2806. Corequisite: DEH 2806.

DEH2808
Dental Hygiene 5
2.00 credits
Students will learn the basic dental and behavioral sciences within the practice of dental hygiene. Special emphasis is given to Florida laws governing dental hygiene practices. Prerequisite: DEH2806, DEH2806L; Corequisite: DEH2808L.

DEH2808L
Dental Hygiene 5 Clinic
4.00 credits
Ongoing experience in total dental hygiene care of the periodontally involved patient. Prerequisites: DEH 2603, 2603L, 2806L; corequisite: DEH 2808.

DEH2810L
Interprofessional Practice and Education Lab
1.00 credit
Students will learn to examine the Dental Hygiene scope of practice through professional identity by way of interprofessional collaboration. Students will also develop knowledge and skills to serve on health professional teams to improve health outcomes. Prerequisite: DEH1811.

DES1200
Dental Radiology
2.00 credits
Techniques and theory for the safe and effective use of radiographs as related to dentistry. Corequisites: DEH 1002, 1002L, DES 1200L.

DES1200L
Dental Radiology Laboratory
2.00 credits
Laboratory for DES 1200. Prerequisite: Acceptance into the Dental Hygiene Program; corequisite: DES1200.

DES1600
Dental Office Emergency
2.00 credits
This course is designed to instruct students in the fundamental patient assessment skills needed to identify and manage emergencies that may arise in the dental office.

DES2100
Dental Materials
2.00 credits
Physical properties of dental materials and their use in the oral cavity. Prerequisite: DEH 2806L, DEH 1133; corequisite: DES 2100L.

DES2100L
Dental Materials Laboratory
1.00 credits
Laboratory for DES 2100. Corequisite: DES 2100.

Economics

ECO2013
Principles of Economics (Macro)
3.00 credits
In this course, students will learn the foundations of macroeconomics as the branch of economics concerned with how decision-making, in an environment of scarcity, maps onto the aggregate economy. Students will examine theories and evidence related the following core set of topics: national income determination, money, monetary and fiscal policy, macroeconomic conditions, international trade and the balance of payments, and economic growth and development. Student learning outcomes: students will recognize that all decisions happen in an environment of scarcity; students will examine theories and evidence regarding how changes in aggregate measurements are related to economic performance; students will recognize the relationships between the components of the national income accounts; students will analyze theory and evidence regarding fiscal and monetary policies and how they affect the economy; and students will identify theories of long-term economic growth and examine evidence for those theories. Writing Intensive Course.

ECO2023
Principles of Economics (Micro)
3.00 credits
Theory of markets, price mechanism, production, distribution and resource allocation; application of marginal analysis and equilibrium theory to the price and output decisions of the individual firm in pure competition, monopolistic competition, oligopoly and monopoly; agriculture; labor, rent interest and profits theory.Prerequisite: MAT1033 or higher with a "C" or higher.

ECO2301
History of Economics Ideas and Their Consequences
3.00 credits
An interdisciplinary study with major elements of economics, philosophy, history, sociology, anthropology, and political science that begins in the agricultural landscape of the 1700s and brings one forward into the age of the corporate giant and the nuclear warfare of modern industrial society.

Education

EDE1040
GKT Preparation for English Language Skills Test
1.00 credit
The student will review formal English language skills in order to prepare to pass the General Knowledge Test English Language Skills section.The student will refine and demonstrate their knowledge of language structure, vocabulary application, and Standard English conventions.

EDE1044
GKT Preparation for Reading Test
1.00 credit
The student will review reading comprehension strategies in order to prepare to pass the General Knowledge Test Reading section.The student will refine their integration of reading skills in order to effectively analyze text.

EDE1045
GKT Preparation for Mathematics Test
2.00 credits
The student will review mathematics concepts in order to prepare to pass the General Knowledge Test Mathematics section.The student will refine their knowledge of number sense, concepts, and operations; geometry and measurement; algebraic thinking and the coordinate plane; and statistics, probability, and data interpretation.

EDE1046
GKT Preparation for Essay Test
1.00 credit
The student will review formal college-level writing in order to prepare to pass the General Knowledge Test Essay section.The student will refine their ability to develop a cohesive essay that satisfactorily addresses the given prompt.

EDF1005
Introduction to the Education Profession
3.00 credits
This course provides an overview of Florida's educator certification pathways and career options in education in accordance with Florida Statutes. Topics include: key educational philosophies; professional ethics; legal responsibilities, including mandatory reporting for child abuse and neglect; the Florida Educator Accomplished Practices (FEAP); key instructional practices associated with effective teaching of students with exceptionalities; Florida's state academic standards; and historical, legal and financial foundations of the Florida education systems. Students will explore effective teaching strategies in classroom management, educational technology and the foundations of all student learning needs. Includes a minimum of 15 hours of required clinical experience in a variety of school settings.

EDF2130
Human Development and Learning for Educators
3.00 credits
The student will investigate child and adolescent development, including theories and principles of learning. The student will define typical and atypical human growth and development across the lifespan, with emphasis on major developmental issues, and how these interplay to holistically shape development. The student will examine literature on developmental processes, learning theories and concepts related to instructional practices and the crucial role that educators play in fostering the mindsets and skill sets that support optimal development throughout the lifespan of their diverse learners. This course will satisfy the requirement for a course in child and adolescent development for teacher certification.

EDF2144
Maximizing Student Potential in the School Context
3.00 credits
The student will explore various aspects of learning and brain development in schools. Students will be introduced to the latest neuroscience education strategies used in schools to optimize their learning potential from infancy through adolescence.

EDF3115
Child Development for Inclusive Settings
3.00 credits
This course provides an overview of human life from fertilization through eight years of age. The student will examine growth and developmental characteristics during the prenatal, infancy, and early childhood periods. The student will learn to analyze typical and atypical development, developmental theories, learning theories, brain research, attachment, and relationships. Pre/Co-requisites: EEC1000 or 1001, EEC2224, EEC2271, EEC2401, EEC2407, EEC2601.

EDF4430
Measurement and Assessment in Education
3.00 credits
The student will learn current research-based principles of assessment. The student will select specific standards and competencies and develop formative and summative traditional and alternative assessments. The student will interpret assessment data that will improve academic achievement and ensure equity in the application of quantitative and qualitative assessments. Pre-requisite: EDG3321.

EDF4433
Data-Driven Instructional Change
3.00 credits
This course on data-driven decision-making is designed for current teachers. The student will learn to set measurable goals, collect and analyze data, implement instructional interventions, and align practice to school improvement. Prerequisite: Bachelor's degree in education.

EDG2311
Substitute Training
1.00 credits
Provides students with the necessary knowledge, skills, and dispositions to successfully serve as temporary instructors for the Miami-Dade County Public School (M-DCPS) Board. The course provides best practices in classroom management and effective teaching strategies; key items of M-DCPS Board policy and Florida statutes; and the Code of Ethics and Principles of Professional Conduct of the Education Profession in Florida.

EDG2943
Educational Service Field Work
1.00 - 3.00 credits
The student will learn to compile the necessary documents and complete the process of obtaining a state and/or national early childhood credential. The student must complete the four courses in either the Infant/Toddler Specialization or the Preschool Specialization in order to take this course. Prerequisite: EEC1311, EEC1200, EEC1000, EEC2202, EEC1001, EEC1522, EEC2201, EEC2407

EDG3321
General Teaching Skills
3.00 credits
The student will learn how human development and learning theories, developments in educational neuroscience, and current research based pedagogy apply to the teaching and learning process. The student will incorporate principles and skills of effective instruction in the planning, including differentiated instruction, aligning instructional teaching skills to practice, selecting appropriate formative assessment, and developing learning experiences that require students to demonstrate a variety of skills.

EDG3410
Classroom Management and Communication for P-12 Teachers
3.00 credits
In this teacher certification course, the student will learn to develop practical strategies and use applicable skills to create a positive, safe, organized, equitable, flexible, inclusive, collaborative, and student-centered P-12 classroom environment that promotes learning.

EDG3443
Classroom and Behavior Management
3.00 credits
The student will investigate how to develop a positive and productive equitable learning environment grounded in research-based character development models and learning theories. The student will learn strategies for observing, assessing, modifying behavior, and communicating with stakeholders. The student will learn to create an inclusive learning environment that encourages positive interactions, self-regulation, and social-emotional learning. Fifteen hours of clinical experience are required. Pre/Co-requisites: EDG3321.

EDG4343
Instructional Strategies for P-12 Teachers
3.00 credits
In this teacher certification course, the student will utilize research-based instructional design models to create lesson plans and instruction that aligns with state standards. The student will learn to incorporate educational theories and educational neuroscience to develop strategies for inclusive P-12 classrooms serving diverse populations.

EDG4376
Integrated Language Arts and Social Sciences
3.00 credits
The student will use knowledge, skills, and dispositions from the social sciences to organize and provide integrated instruction in the major themes, concepts, and modes of inquiry in grades K-12. The student will plan and integrate language arts and social science strategies and content to create accessibility of the curriculum to a diverse population. 15 hours of service-learning experience are required.Pre-requisites: EDG3321, Pre/Co-requisites: EDF4430, RED3393.

EEC1000
Introduction to Early Childhood Education
3.00 credits
This course will provide an overview of Early Childhood Education from Birth to Age 8. The student will develop an understanding of family and societal influences on young children, a relationship-based approach to responsive program planning principles of child growth and development, the role of play in learning, and the importance of Educational Neuroscience in Early Childhood. (Twenty hours of service learning in an early childhood center required.).

EEC1200
Early Childhood Curriculum 1
3.00 credits
The student will learn developmentally appropriate curriculum planning and its impact on children's total development. The student will examine the importance of dramatic play, proper room arrangement, outdoor environments, advances in technology, scheduling, classroom management, and activity planning for first and second language development, early literacy, and social studies.

EEC1308
Classrooms for All Young Children
3.00 credits

The student will design and modify learning environments and learning approaches to meet the needs of all children. The student will use technology where applicable and select appropriate materials and activities to promote student independence, self-regulation, and developmental progress.

EEC1311
Early Childhood Curriculum 2
3.00 credits

The student will learn developmentally appropriate curriculum planning and its impact on children's total development. The student will examine the importance of integrating appropriate experiences across curriculum including math, science, art, music, creative movement, cooking, nutrition, and health and safety.

EEC1522
Infant and Toddler Environments
3.00 credits

This course provides the student with information on planning the physical facilities, equipment, and materials for quality infant and toddler environments. Course content allows for observations and examination of how the physical environment affects development of children and supports individual differences utilizing appropriate and culturally responsive strategies. The student will learn about curriculum planning, promoting social and emotional development, language and literacy, child abuse and neglect, and comprehensive family support services in relation to establishing quality environments for children.

EEC1713
Helping All Young Children Become Independent Learners
3.00 credits

The student will learn how to utilize a holistic approach in guiding all young children to become independent learners. The student will learn to utilize positive behavior support strategies to help improve executive functioning skills in all young children. The student will identify strategies to involve the family.

EEC1752
Knowing and Understanding All Young Children
3.00 credits

The student learn the process, principles, and patterns of child development. The student will identify the strengths and challenges of children with typical and atypical development. The student will learn to identify indicators of child abuse and neglect.

EEC1753
Observing and Assessing All Young Children
3.00 credits

The student will learn the process and importance of observing, documenting, and interpreting the behavior of all young children. The student will use observation instruments to understand all young children's growth and development. The student will also develop suggested intervention measures that meet the needs of the children and the families they serve.

EEC2002
Operation of an Early Childhood Facility
3.00 credits

This introductory course provides an overview for early childhood administrators to develop and enhance their leadership role in designing and implementing quality early care and education programs. The student will study the following topics: organizational leadership and management, programming, and financial and legal issues. This course meets the requirements for the Education Program Administrator Foundational Level Credential.

EEC2201
Developing Curriculum for Infants and Toddlers
3.00 credits

This course provides the Early Childhood professional with information about developing appropriate curriculum for infants and toddlers based on health, safety, physical, social, emotional, cognitive, and language development. The student will focus on developmentally appropriate curriculum and learning opportunities based on daily classroom routines.

EEC2202
Early Childhood Education Curricula
3.00 credits

The student will review historical perspectives and theories utilized in designing early childhood curriculums and examine best practices for early childhood education (birth- age 5). The student will examine philosophies, approaches to teaching and theories of learning which have influenced curriculum development in early childhood education. The student will analyze characteristics of foundational curriculum models and current trends and their influence on the development of early childhood curriculum implementation and program policies.

EEC2224
Emergent Literacy
3.00 credits

The student will learn about language and literacy development for young children birth through five years of age. Students will examine the development of listening and understanding, speaking, vocabulary, and emergent reading and writing skills. The student will analyze the teacher's role and methods of creating a literacy-rich environment that engages children in creative, developmentally appropriate experiences and the importance of involving families in the development of these skills.

EEC2225
Creative Arts for Preschool Education
3.00 credits
The student will research the principles, methods, and materials for fostering play and process-oriented arts exploration in early childhood settings birth-age five. The student will investigate the importance of how developmentally appropriate creative arts (visual arts, drama, music and movement) learning invitations foster total development. The student will analyze the role of the teacher in designing and planning culturally relevant integrated arts experiences and to foster divergent thinking for young children birth through age five.

EEC2271
Working With Young Children With Special Needs And Their Families
3.00 credits
This course provides the student with an overview of young children birth through five years of age with special needs and their families. The student will learn the possible causes and characteristics of exceptionalities, federal laws, and methods of observation, referral process, educational intervention, resources, and advocacy (20 hours in a B-4 SPED setting).

EEC2302
Early Childhood Comprehension
3.00 credits
The student will learn about the early childhood teacher's role in increasing comprehension in early childhood education (ages 3-5).Topics will support a curriculum that builds an understanding of language acquisition, vocabulary development, and instructional strategies for increasing children's comprehension of literary text.

EEC2401
Family Interaction and Cultural Continuity through Literacy
3.00 credits
The student will learn about how language and literacy practices help establish positive and productive relationships with the families and children in their classroom and program. The student will use literacy experiences to develop culturally responsive, trusting, supportive reciprocal relationships with young children, their families, and their communities. The student will understand how to promote cultural continuity in the early childhood (birth- age 5) setting through language and literacy practices.

EEC2407
Facilitating Social Development
3.00 credits
The student will learn about early childhood teaching and learning utilizing educational neuroscience research.The student will examine the interrelation of social, emotional, and intellectual development in young children and their effects on learning. The student will analyze essential life skills for academic success. (Twenty hours of service learning in an early childhood center required).

EEC2520
Early Childhood Organization leadership and management
3.00 credits
The student will develop skills needed by early childhood program administrators to manage a high quality center.The student will learn about organizational structure of a center; ethics and professionalism; leadership strategies, skills, and competencies; self-reflection and work environment; quality improvement; staff recruitment, evaluation, and retention. This course meets the requirements for the Florida Advanced Level Child Care and Education Administrator Credential. (Requires employment at an early childhood center.). Prerequisite: EEC2002.

EEC2523
Programming & Management for Early Childhood Administrators
3.00 credits
The student will learn about developmentally and culturally appropriate environments, curriculum, and professional standards for early childhood care program administrators.The student will develop an understanding of child observation, assessment, documentation, and referrals and their importance. The student will learn about program evaluation, health, safety, healthy nutrition practices, and the importance of partnerships with families. This course meets the requirements for the Florida Advanced Level Child Care and Education Administrator Credential. (Requires employment at an early childhood center.) Prerequisite: EEC2002.

EEC2527
Legal & Financial Issue in Child Care
3.00 credits
The student will learn about the legal and financial issues related to operating a successful early childhood center. The student will learn about financial planning, personnel cost and allocation, budgeting and accounting. The student will develop knowledge about compensation and benefit, risk management, marketing and public relations, regulatory requirements, and legal issues related to childcare management. This course meets the requirements for the Florida Advanced Level Child Care and Education Administrator Credential. (Requires employment at an early childhood center.). Prerequisite: EEC2002.

EEC2601
Observation and Assessment in Early Childhood
3.00 credits
The student will learn how to implement a system of ongoing child observation and assessment for children from all young children from birth to age five. The student will understand the importance of and strategies for planning and preparing for an effective system of ongoing child assessment to inform their teaching, improve children's learning, and provide information and opportunities for individualizing ongoing assessment strategies for children who are dual language learners and children with special needs. The student will learn how to use a variety of assessment tools related to language, literacy and school readiness. Service Learning in a B-4 NAEYC accredited setting).

EEC3213
Language, Literature, and Emergent Literacy
3.00 credits
This course focuses on the development of language and literacy in children ages birth through age five. The student will learn the process of emergent literacy including vocabulary and language development, phonological awareness, alphabetic and print knowledge, and comprehension. The student will learn to design developmentally appropriate and effective emergent literacy activities in relation to the early learning and developmental standards. (Ten hours of clinical experience required in an approved pre-kindergarten inclusion setting.)

EEC3301
General Teaching Methods for Early Childhood Education
3.00 credits
This course will introduce instructional models to design lesson plans and instruction based on state standards. The student will incorporate educational theories and educational neuroscience to develop strategies for early childhood inclusive classrooms serving diverse populations. (Ten hours of clinical experience required in an approved kindergarten-third grade setting.). Pre-requisites: Pre/ Co-requisites: EDF3115 and EEC1000.

EEC3412
Family and Community Partnerships in Early Childhood Education
3.00 credits
This course focuses on family engagement and community involvement in early childhood education. The student will identify strategies for establishing and maintaining reciprocal relationships with culturally diverse parents, families, and communities. The student will explore ways to connect students, parents, families, the school, and the community as a partnership to support student learning and well- being.

EEC3613
Observation and Assessment of Young Children
3.00 credits
This course will provide an overview of the process and importance of observing, documenting, and interpreting the behavior of young children. The student will learn and apply various methods to document the ongoing development of children and the value of using this information to support and plan for learning experiences. (Ten hours of clinical experience in an approved birth-age four inclusion setting.)

EEC4219C
Science, Technology, and Mathematics (STEM) Methods for ECE II
3.00 credits
The student will learn to use scientific and mathematical research-based methods and strategies to teach inquiry and problem-solving skills and plan activities for young children that foster exploration in the nature of science, mathematics, and technology. (Ten hours of clinical experience required in an approved kindergarten-third grade inclusion setting with ESOL students during math and science instruction: 1 observation.)

EEX2000
Introduction to Special Education
3.00 credits
The student will learn about the history, legal issues, and legislation related to Exceptional Student Education. The student will learn about the differing types of exceptionalities and the types of supports and accommodations that are provided to students. Prerequisite: EDF1005

EEX3201
Young Children with Special Needs
3.00 credits
This course provides an overview of issues related to young children (birth through age eight) with special needs. The student will learn about possible causes and characteristics of exceptionalities, federal laws pertaining to students with disabilities, the referral process, educational interventions, available resources, and advocacy (Ten hours of clinical experience required in an approved birth-age four inclusion setting).

EEX4094
Nature and Needs of Students with Autism Spectrum Disorders
3.00 credits
The student will learn basic skills, knowledge, and strategies associated with teaching students with autism spectrum disorders (ASD). The student will acquire content and pedagogical knowledge to provide effective instructional practices to students with ASD. Six hours of clinical experience hours are required. Prerequisite: BS in Exceptional Student Education (ESE) plus experience working with students with varying exceptionalities.

EEX4232
Assessment and Diagnosis of Autism Spectrum Disorders
3.00 credits
The student will learn assessment instruments and strategies used for the referral, diagnosis, and remediation of academic and behavioral difficulties of students with autism spectrum disorders. The student will learn to utilize assessment instruments for instructional planning and evaluating learning outcomes. Six hours of clinical experience are required. Prerequisite: EEX4094

EEX4613
Behavior Supports and Management for Students with Autism Spectrum Disorders
3.00 credits
The student will learn disability specific assessment tools used to evaluate social, emotional, and behavioral skills of students with autism spectrum disorders. The student will learn intervention strategies for teaching positive behavior support and appropriate adaptive behavior. Six hours of clinical experience are required. Prerequisite: BS in

Exceptional Student Education (ESE) plus experience working with students with varying exceptionalities.

EEX4761
Assistive Technology and Communication Systems for Students with Autism Spectrum Disorders
3.00 credits
The student will learn about assistive technology (AT) strategies including its use for improving the communication and functional capabilities of students with autism spectrum disorders. The student will learn about instructional and assistive technology devices used to support students with autism spectrum disorders. Six hours of clinical experience are required. Corequisite: EEX4094.

EEX4932
Advanced Topics in Exceptional Student Education
3.00 credits
The student will explore current issues and trends in Exceptional Student Education (ESE). The student will learn about the foundations of ESE, including instructional practices, differentiated instruction, positive behavioral supports, assessment, the transition process, and assistive technology. This course will help prepare students for the Florida Teacher Certification ESE exam.

EME2040
Creativity, Innovation, and Technology for the 21st Century Learner
3.00 credits
The student will learn to manage a productive and safe technology environment by promoting creativity and innovation in the classroom. The student will gain 21st century knowledge, skills, and attitudes for applying technology across multiple disciplines and grade levels. Prerequisite: CGS1060C.

EME2071
Educating Young Children for Digital Literacy in the 21st Century
3.00 credits
This course provides an overview of technology and interactive media in early childhood. The student will learn ways in which to optimize opportunities for young children's cognitive, social, emotional, physical, and linguistic development by using technology and media in ways that are grounded in principles of early childhood development and developmentally appropriate practices. The students will learn how to make informed decisions regarding the intentional use of technology and media in ways that support children's learning and development. Prerequisite: Departmental permission.

EME4610
Introduction to Instructional Design
3.00 credits
This is the first in a series of five courses that leads to a certificate in Instructional Design. The student will develop an overview of the field of instructional design as it relates to training, development, and education. The student will compare and contrast instructional design models, learning theories, and current technologies.

EME4611
Instructional Design Development 1
3.00 credits
In this course, the student will develop and launch a prototype of a training, development, or educational opportunity using different types of media tools. Pre/Co-requisites: EME 4683

EME4612
Instructional Design Development II
3.00 credits
In this course in Instructional Design, the student will develop assessments and an evaluation plan for a training, development, or educational opportunity. The student will conduct User Acceptance Testing using established criteria, and utilize feedback to modify his or her prototype. Pre/Co-requisites: EME 4611

EME4671
Instructional Design Analysis
3.00 credits
In this course, the student will evaluate and analyze training, development, and education opportunities and project development. The student will develop a needs analysis for an instructional design project based on research-based best practices in the field. Pre/Co-requisites: EME 4610

EME4683
Instructional Design Application
3.00 credits
In this course, the student will utilize best practices of learning design, learning theories, and instructional strategies for adult learners to write objectives, develop an outline, and create storyboards that encompass the scope of a training, development, or educational opportunity. Pre/Co-requisites: EME 4671

TSL2082
Introduction to Teaching English to Speakers of Other Languages (TESOL)
3.00 credits
In this introductory course, the student will understand the process of acquiring a second language, and the social-emotional impact it has on the learner. The student will examine the laws and policies in place to support English language learners (ELLs), as well as research-based strategies to facilitate language development, literacy skills and content knowledge.

Education Foundations & Policy Studies

EDF4991
Brain-Based Teaching: Reading and the Brain
3.00 credits
The student will learn how the brain processes information and acquires the ability to read. The student will apply

educational neuroscience and research-based pedagogy to the instruction of P-12 content areas.

EDF4993
Brain-Based Teaching: The Bilingual Brain
3.00 credits
The student will learn how P-12 English Language Learners' (ELLs) brain processes information. The student will acquire research-based and best practices for teaching, differentiating instruction, and assessing ELLs.

EDF4994
Brain-Based Teaching: Mathematics and the Brain
3.00 credits
The student will learn how the brain processes information and acquires the ability to perform mathematical processes. The student will integrate educational neuroscience, cognitive research-based, instructional practices, and mathematics assessment into the P-12 classroom.

EEC3211
Science, Technology, and Mathematics (STEM) Methods for ECE I
3.00 credits
The student will learn to use scientific and mathematical educational neuroscience research based methods and strategies to teach inquiry and problem-solving skills and plan activities for young children that foster exploration in the sciences. (Ten hours of clinical experience required in an approved prekindergarten inclusion setting: 1 observation required.). Pre/Co-requisites: EDF3115, EEC3301.

EEC3212
Integrated Social Sciences, Humanities, and Arts
3.00 credits
This course provides an overview of the role of social studies, humanities, and the fine arts in early childhood classrooms. The student will learn to plan, implement, and assess developmentally appropriate activities that integrate the diverse sociological and cultural influences on the child. (Ten hours of clinical experience required in an approved prekindergarten inclusion setting: 1 observation required.). Prerequisite: EEC3301.

EEC4219C
Science, Technology, and Mathematics (STEM) Methods for ECE II
3.00 credits
The student will learn to use scientific and mathematical research-based methods and strategies to teach inquiry and problem solving skills and plan activities for young children that foster exploration in the nature of science, mathematics, and technology. (Ten hours of clinical experience required in an approved kindergarten-third grade inclusion setting with ESOL students during math and science instruction: 1 observation.) Prerequisites: EEC3301, EEC 3211.

EEC4268
Practicum in Early Childhood Education
3.00 credits
The student will plan and implement action research strategies to meet the needs of struggling readers.The student will attend professional development experiences designed to develop knowledge and pedagogy, and will prepare for teaching interviews and entry into the profession. (Sixty hours of clinical experience are required in an approved first-third grade setting with ESOL students) Corequisites: LAE 4211..

EEC4936
Student Teaching Seminar I: ECE
1.00 credits
The student will learn to discuss and reflect on their development and mastery of the Pre-Professional Florida Educator Accomplished Practices during the completion of their internship in a Birth-Four classroom setting. Co-requisites: EEC4940.

EEC4936C
Student Teaching Seminar II: ECE
1.00 credits
The student will learn to discuss and reflect on their development and mastery of the Pre-Professional Florida Educator Accomplished Practices during the completion of their internship in a K-3 classroom setting. Co-requisites: EEC4940C.

EEC4940
Internship in Early Childhood Education I
5.00 credits
The student will complete a full time (10 weeks), supervised teaching experience in a Birth - Four setting. The student will learn and experience all of the educational and professional responsibilities common to teachers within their area of expertise. Co-requisites: EEC4936.

EEC4940C
Internship in Early Childhood Education II
5.00 credits
The student will complete a full time (10 weeks), supervised teaching experience in the K-3 setting. The student will learn and experience all of the educational and professional responsibilities common to teachers within their area of expertise. Pre-requisites: Co-requisites: EEC4936C.

EEX3071
Teaching Exceptional and Diverse Populations in Inclusive Settings
3.00 credits
The student will learn current research-based instructional strategies, educational neuroscience, and legal and ethical issues necessary in addressing the needs of diverse learners in inclusive classrooms. The student will make informed decisions in adapting, accommodating, and modifying the curriculum for students with special needs. Fifteen hours of clinical experience are required. Pre-requisites: EEX2000 and EDG3321.

EEX3120
Language Development and Communication Disorders
3.00 credits

The student will learn about typical language and speech development, characteristics and manifestations of communication disorders, and educational neuroscience research concerning first and second language acquisition. The student will learn about effective strategies and accommodations that can be used in planning instruction for P- 12 students with speech and language disorders and differences.Pre/Co-requisites: EDG3321.

EEX3226
Assessment of All Young Children
3.00 credits

The student will utilize guidelines and techniques for observing, assessing, evaluating, and planning curriculum for young children. The student will use formal and informal assessments to evaluate social/emotional, cognitive, language, and motor development; and will use data to plan for instruction. (Ten hours of clinical experience required: 3 hours to include an observation of an evaluation of a young child at Early Steps, 3 hours to include a tour of the Mailman Center, Early Steps, and the FAAST Lab, and the remaining 4 hours are to be completed in an approved kindergarten-third grade inclusion setting with ESOL students). Prerequisites: EDF3115, EEC3301. Pre-requisites: EEC2601, EEC2271; Pre/Co-requisites: EDF3115, EEC3301.

EEX3603
Positive Behavior Supports in Inclusive Settings
3.00 credits

This course provides a holistic approach in guiding young children's behavior. The student will learn to utilize strategies that emphasize the importance of relationships to learning, self- awareness, and pro-social behaviors focusing on individual needs of each child. (Ten hours of clinical experience required in an approved pre-kindergarten inclusion setting.). Pre-requisites: EEC2271.

EEX4012
Introduction to Brain-Based Teaching Strategies
1.00 credits

The student will learn how the brain processes information and how to best engage the brain during learning. In this overview course, the student will acquire research-based, brain-friendly strategies that focus on students with disabilities, English language learners, reading, and mathematics.

EEX4024
Legal Issues for Working with Students with Exceptionalities
3.00 credits

The student will learn about the history, governing legislation, and current status of special education in the US. Through case analyses and simulations, the student will correlate and evaluate P-12 classroom and administrative practices and issues with current legislation and mandates.

EEX4221
Assessment in Special Education
3.00 credits

The student will study, analyze, and administer informal and formal assessments to K-12 learners with special needs. The student will learn to prepare and present assessment data for use in instructional planning and developing individualized educational plans for K-12 learners with disabilities. Pre-requisites: EDG3321, and EDF4430.

EEX4294
Differentiated Instruction in Mixed-Ability Classrooms
3.00 credits

The student will learn the educational neuro scientific basis for providing differentiated instruction in mixed-ability classrooms. The student will utilize research-based instructional and assessment strategies to create differentiated instruction to meet the needs of all learners in P-12 classrooms.

EEX4833
Practicum in Special Education
3.00 credits

The student will plan, develop, and implement literacy pedagogic methods that meet the needs of a diverse population of K-12 learners. The student will learn to utilize action research methodology, assessment principles, educational neuroscience research, and best practices to determine the effectiveness of a literacy strategy. Sixty hours of clinical experience are required. Pre-requisites: EDF4430, EDG3321, EDG4376, EEX3071, EEX3120, RED3393, and TSL3243; Pre/Co-requisites: EEX4221 or, MAE4360 or, RED4519 or, SCE4362 or, TSL4311.

EEX4930
Seminar in Special Education
3.00 credits

The student will engage in professional dialogue and explore professional development opportunities related to teaching students with exceptionalities. This seminar course is taken in conjunction with a full time, supervised teaching experience and provides an opportunity to examine and reflect on the daily experiences of becoming a highly effective teacher. Co-requisites: EEX4940.

EEX4931
Introduction to Autism Spectrum Disorders
1.00 credit

The student will identify the legislation associated with Autism Spectrum Disorders (ASD), discuss the characteristics of ASD, understand the nature and needs of ASD, identify positive behavioral interventions, appropriate curricula and assessment modifications, as well as discuss the impact of home, school, and community relationships on students with ASD.

EEX4940
Internship in Special Education
9.00 credits

The student will engage in the educational and professional responsibilities common to teachers in exceptional student education.This internship experience reinforces and augments teaching strategies that

students have developed through their coursework and clinical experiences. Students participate in a full time, supervised teaching experience. Co-requisites: EEX4930.

EEX4992
Brain-Based Teaching: The Exceptional Brain
3.00 credits
The student will learn how the typical and atypical brain processes information. The student will acquire research-based and best practices for teaching, differentiating instruction, and assessing P-12 students with and without identified exceptionalities.

MAE3951
Project-Based Learning in Mathematics Education
2.00 credits
The student will learn and apply the principles of project-based learning by designing and implementing projects to explore real-world problems, questions, and challenges in the field of education. The student will develop their technology, critical, creative, and communication skills by producing products to share their findings and proposed solutions. This course requires approved clinical hours.

MAE4360
Methods of Teaching Mathematics
3.00 credits
The student will utilize theory and educational neuroscience research in developing knowledge and pedagogy essential for K-12 mathematics instruction which accommodates the needs of diverse learners. The problem-solving approach will be used to design, implement, and assess mathematics instruction and curriculum. Fifteen hours of clinical experience are required. Pre-requisites: EDG3321; Pre/Co-requisites: EDF4430.

MAE4940
Advanced Topics in Mathematics Education Practicum
3.00 credits
The student will plan and implement mathematics instruction that meets the needs of a diverse population of learners. The student will learn to utilize action research methodology, assessment principles, educational neuroscience research, and best practices to identify and address issues related to mathematics learning in grades 6-12. Sixty hours of clinical experience are required.

MAE4942
Seminar in Mathematics Education
3.00 credits
The student will engage in professional dialogue and explore professional development opportunities related to teaching in the secondary science setting. This seminar course is taken in conjunction with a full time, supervised teaching experience and provides an opportunity to examine and reflect on the daily experiences of becoming a highly effective teacher. Co-requisites: MAE4945.

MAE4945
Internship in Mathematics Education
9.00 credits
The student will engage in the educational and professional responsibilities common to teachers in the secondary mathematics classroom.This internship experience reinforces and augments teaching strategies that students have developed through their coursework and clinical experiences. Students participate in a full-time, supervised teaching experience. Co-requisites: MAE4942.

MHF4404
History of Mathematics
3.00 credits
A study of the development of mathematics from ancient civilizations to the present time. Prerequisite: MAC 2312 or approval of department.

SCE4362
Methods of Teaching Science
3.00 credits
The student will learn to design and implement science instruction utilizing the national framework for K-12 science education and educational neuroscience to provide all students with high-quality science education.The student will learn about the theoretical knowledge and skills essential for facilitating science instruction in a variety of classroom settings. Fifteen hours of clinical experience are required. Pre/Co-requisites: EDF4430.

SCE4363
Advanced Topics in Science Education Practicum
3.00 credits
The student will design, implement, and examine the alignment of their personal instructional practices to the national framework for K-12 science education utilizing the action research process. The student will focus on identifying, analyzing, and addressing misconceptions in science in grades 6-12. Sixty hours of clinical experience are required. Pre-requisites: EDF4430, EDG3321, RED3393, SCE4362, TSL4324C; Pre/Co-requisites: EEX3071, SCE3893.

SCE4943
Seminar in Science Education
3.00 credits
The student will engage in professional dialogue and explore professional development opportunities related to teaching in the secondary science setting. This seminar course is taken in conjunction with a full time, supervised teaching experience and provides an opportunity to examine and reflect on the daily experiences of becoming a highly effective teacher. Co-requisites: SCE4945.

SCE4945
Internship in Science Education
9.00 credits
The student will engage in the educational and professional responsibilities common to teachers in the secondary science classroom.This internship experience reinforces and augments teaching strategies

that students have developed through their coursework and clinical experiences. Students participate in a full time, supervised teaching experience. Co-requisites: SCE4943.

Education: American Sign Language and ASL Interpretation

INT1000
Interpreting Ethics and Professionalism
3.00 credits
The course provides an overview of the career of sign language interpreter. Included are the interpreter's role and responsibilities, Code of Ethics issues, evaluation systems for determining competency and logistical considerations. Various statutes will be examined with regard to their implications for interpreting and related services. These include The American with Disabilities Act (ADA), the education for all Handicapped Children Act and the Rehabilitation Act. Prerequisites: ASL 1150C, 1000.

INT1202
Sign to Voice Interpreting
3.00 credits
In-depth discussion and application of techniques and principles for interpreting legal, medical, oral and deaf/blind situations. Prerequisites: ASL 2160C, INT 1240.

INT1240
Voice to Sign Interpreting
3.00 credits
In-depth discussion and application of techniques and principles for interpreting situations in educational, social service, free-lance interpreting and the business aspects of interpreting. Prerequisites: ASL 2160C, INT 1000.

INT1400
Educational Interpreting
3.00 credits
Provides an overview of the field, including the role and responsibilities of educational interpreters, their working conditions and related issues. Also covered are evaluation systems for educational interpreters and the Florida Educational Code of Ethics. Opportunities for skill building will be included with emphasis placed on signing with conceptual accuracy, mastering various sign systems and developing expertise in the use of technical signs. Prerequisite: INT1000.

INT1480
Interpreting: Special Settings & Populations
3.00 credits
The course examines various settings in which interpreters work. These include social service and rehabilitation, employment-related, mental health and substance abuse treatment, religious, performing arts, legal and other settings. Also considered are specific deaf and hard of hearing consumers who present unique challenges for interpreters such as oral deaf persons, people who are both deaf and blind and those who would be classified as having minimal language skills (MLS). The course includes lecture and skill building opportunities. Prerequisites: ASL 2160C, INT 1000.

INT1941
Interpreting Internship
6.00 credits
This course includes field observation and supervised practical interpreting experience in a one-to-one or small group interpreting situation in the community.The student is assigned to an experienced, certified practicing interpreter who acts as a mentor for the duration of the internship. A minimum of 288 hours is spent in the internship experience. This includes meetings with college faculty and the interpreter/mentor. Prerequisites: All courses in the subject major must have been completed prior to enrolling in this course.

Emergency Medical Services

EMS1059
Emergency Medical Responder
1.00 credits
Provides training in emergency medical care for those who may be first to respond to an accident. The course meets the basic requirements of the U.S. Department of Transportation. Recommended for students who are not required to be certified EMTs. A.S. degree credit only. Co-requisite EMS 1059L.

EMS1059L
Emergency Medical Responder Laboratory
2.00 credits
Provide training in emergency medical care for those who may be first to respond to an accident. The course meets the basic requirements of the U.S. Department of Transportation. Corequisite: EMS 1059. A.S. Degree credit only.

EMS1119
Emergency Medical Technician
4.00 credits
A review of basic life support theory. Areas of emphasis include the prehospital environment, preparatory information, patient assessment, medical emergencies, behavioral emergencies, OB/GYN emergencies, trauma emergencies, pediatric emergencies and EMS operations. Pre-requisite EMS1059, EMS1059L, Corequisites: EMS 1119L, EMS 1431.

EMS1119L
Emergency Medical Technician Lab and Clinic
3.00 credits
Practical application of the content covered in EMS 1119 with an emphasis on cardiopulmonary resuscitation, splinting, bandaging, patient movement, and other skills as recommended by the U.S. Department of Transportation for the EMT level practitioner. Pre-requisite EMS 1059, EMS1059L, Corequisites: EMS 1119, 1431.

EMS1431
EMT Hospital/Field Experience
3.00 credits
Practice in local emergency departments and rescue agencies under professional supervision. This course meets the skills recommended by the U.S. Department of Transportation. Corequisite: EMS 1119, 1119L.

EMS2311
Emergency Medical Operations
3.00 credits
Advanced theory of management operations currently used nationally by comprehensive emergency medical service systems. Legal issues as related to various aspects of the system, personnel policies, provider versus client roles, disaster planning, communications, budgeting and evaluation of the system will be discussed. Pre/Corequisite : MNA 1345.

EMS2601
Paramedic Lecture 1
8.00 credits
EMS2601 is the first course in the sequence necessary for completion of the Paramedic Certificate program. The course is designed to reinforce concepts and clinical skills learned at the EMT level and to integrate this knowledge beginning with advanced life support concepts and skills. Emphasis is placed on EMS systems, illness and injury prevention, medical-legal issues, patient assessment, airway management and ventilation, pathophysiology, pharmacology, shock, decision-making, and the management of trauma related injuries. This course includes Modules 1-4 of the 1998 DOT National Standard Curriculum for Paramedic Programs. Prerequisites: EMS 2601L, 2664.

EMS2601L
Paramedic Laboratory 1
4.00 credits
A review of basic life support practice and an introduction to advanced life support practice. Areas of emphasis include the patient assessment, trauma emergencies, obstetric emergencies, gynecological emergencies, pediatric emergencies and psychiatric emergencies. Students will be expected to master the techniques of patient assessment, intravenous techniques and endotracheal intubation. Corequisite: EMS 2601, 2664.

EMS2602
Paramedic Lecture 2
8.00 credits
EMS 2602 is the second course in the sequence necessary for the completion of the Paramedic Certificate Program. This course is designed to reinforce and expand upon the material and skills learned in Paramedic 1 level and to integrate prior learning with enhanced life support concepts and skills. Emphasis is placed on patient assessment and recognition of significant findings, pre-hospital diagnosis and differential diagnosis, treatment strategies, anatomy and physiology, pathophysiology, and the management of various emergencies, patients with special challenges, assessment based management, and EMS operations. This course includes Modules 5-8 of the 1998 DOT National Standard Curriculum for Paramedic Programs. Prerequisites: EMS 2602L, 2665; corequisites: EMS 2601, 2601L, 2664.

EMS2602L
Paramedic Laboratory 2
4.00 credits
Continuation of advanced life support practice. Areas of emphasis include the patient assessment, trauma emergencies, obstetric emergencies, gynecological emergencies, pediatric emergencies and psychiatric emergencies. Students will be expected to master the techniques of patient assessment, intravenous techniques, endotracheal intubation, and advanced life support. Corequisites: EMS2602, 2665.

EMS2659
EMS-Field Internship and Conference
8.00 credits
A supervised clinical experience on an advanced life Support (ALS) vehicle. The student obtains increasing patient care responsibilities as a working member of the EMS team under the direct supervision of a designated preceptor. Prerequisites: EMS 2601, 2601L, 2602, 2602L, 2664, 2665.

EMS2664
Paramedic Clinic 1
3.00 credits
EMS 2664 is designed to allow the students "hands-on" practice of the skills and theories learned in EMS 2601 and 2601L. Clinical experience will take place in many areas including the emergency department, operating room and medical examiner's office. All patient care experience will be practiced under the direct supervision of a medical professional (Paramedic, Nurse, Physician, etc.). Corequisites: EMS 2601L, 2601.

EMS2665
Paramedic Clinic 2
3.00 credits
EMS 2665 is designed to allow the students "hands-on" practice of the skills and theories learned in EMS 2602 and 2602L. Clinical experience will take place in many areas including the emergency department, operating room and critical care unit. All patient care experience will be practiced under the direct supervision of a medical professional (paramedic, Nurse, Physician, etc.). Corequisites: ENS 2602, 2602L.

Engineering - General

EGN1008C
Introduction to Engineering
3.00 credits
An introduction to the opportunities, challenges, and required skills of the engineering profession. Students explored the different disciplines of engineering, their function in industry, and required education. Professional issues such as registration, ethics, safety, and design are discussed. Projects and activities are used to develop problem solving, communication and computer skills (word-processing, spreadsheets, presentations, mathematical analysis, email, Internet).

EGN1949
Co-Op Work Experience 1
1.00 - 4.00 credits
This is a capstone course designed for students majoring in engineering programs. Students will learn to apply the skills and knowledge that they have acquired through their program of study in a real work environment. Prerequisite: Successful completion of required program course work and department approval.

EGN2200
Computer Applications in Engineering
3.00 credits
An introduction to fundamental concepts and skills of mathematical programming and computer-aided design. This course explores the use of computer software to solve engineering problems and bring ideas from a concept to a model. Pre/Co-requisite MAC1114 or MAC1147.

EGN2312
Engineering Mechanics - Statics (With Vectors)
4.00 credits
This is a foundation course in engineering mechanics. Students will learn the basic principles of statics covering resultants, equilibrium, trusses, frames, friction, centroids and moments of inertia with vector notation and calculus. The content prepares students for further study in engineering dynamics. Prerequisites: MAC 2312, PHY 2048.

EGN2322
Engineering Mechanics – Dynamics
4.00 credits
This course provides students with the skills they need to analyze and solve problems involving bodies in motion through the application of vector mechanics and Newton's laws. Students will learn kinematics, kinetics, energy of particles, rigid bodies in 2-D and 3-D motion, and vibrations. Pre/Corequisite: MAC2313.

EGS1010
Applied Research Methods
1.00 - 3.00 credits
This course is designed for STEM majors. Students will learn basic research practices: research methods, experimentation, validation, technical writing, and presentations. Using the Affinity Research Group model, students will work in groups to conduct theory-based STEM research, develop poster presentations, and write conference and journal publications.

Engineering Technology Drafting

ETD1340
Computer Aided Drawing & Design
3.00 credits
This course is recommended for all engineering students as an introduction to the basic concepts of drafting and designing using a computer. Students will learn industry standard drafting and design practices using AutoCAD in a laboratory environment. Pre/Corequisite: MAC1105.

Engineering Technology Electrical

CET1110C
Digital Circuits
4.00 credits
This course is intended for students majoring in Electronics or Computer Engineering Technology. Students will learn how to apply electronic principles to digital computer circuits and systems. Students will also learn how to simplify logic circuits, build digital circuits, and perform other laboratory activities. Prerequisite: EET1015C, MAC1105. Pre/corequisite: COP2270.

CET1171
Introduction to Computer Service and Maintenance
3.00 credits
This course is designed as an introduction for students new to IT. Students will learn about the history, design, construction, and maintenance of microcomputers, including the proper handling and use of computer components and tools; how to assemble and disassemble computers; how to perform preventive maintenance; how to identify and upgrade components; how to interpret error messages, and how to perform basic troubleshooting.

CET1178C
A+ Computer Hardware Service
3.00 credits
This is an intermediate level course that prepares students for A+ hardware certification. Students will learn how to: install, configure, and upgrade components diagnose and troubleshoot computer systems, identify, test, and troubleshoot motherboards, processors, memory, and printers, and connect network equipment. Prerequisite: CET1171. A.S. credit only.

CET1487C
Network+
3.00 credits
This is an intermediate level course designed for students preparing for the hardware component of the Network+ certification. Students will learn how to install, configure, manage, troubleshoot and upgrade network devices including network interface cards, switches, hubs, wireless access points, routers, and patch panels. They will also learn about the construction, installation, testing and repair of the physical layer of the network, including wired cables, fiber optic media, wireless transmitters and antennas. Demonstrated knowledge of microcomputer fundamentals and system components is required. Recommended Preparation: CET1178C or A+ certification.

CET2113C
Advanced Digital Circuits
4.00 credits
This is a second level course in digital circuits for students majoring in electronics and related engineering technologies that extends the application of sequential and combinational logic circuits and other digital applications. Students will learn to program, operate, and interface with a micro-computer and its elements. Prerequisite: CET1110C, COP2270. Pre/Co-requisite: EET1141C.

CET2123C
Microprocessors
4.00 credits
This course is intended for students majoring in Electronics or Computer Engineering Technology. Students will learn to apply digital principles to the understanding of microprocessor parameters and characteristics (addressing range and models, instruction set, architecture, input/output, interrupts, and programming). Students will build practical microprocessor and/or microcontroller based systems to perform a variety of engineering applications. Prerequisite: CET 1110C and COP 2270.

CET2588C
Server + Service and Maintenance
3.00 credits
This course is designed for students preparing for the hardware component of the Server + certification. Students will learn how to install, configure, and upgrade workstations and servers, configure and test network and peripheral equipment, and diagnose and troubleshoot advanced computer systems. College readiness in reading and math required. Recommended Preparation: CET1178C or A+ certification.

CET2664C
Electronic Security
4.00 credits
This is an introductory electronic security course for students who are studying cybersecurity, electronics or computer engineering technologies. The student will study information and communication security in computer systems and networks. Both information flow and information integrity policies will be considered. Topics will include authentication, protection, security models, cryptography, applications, and public policy, along with case studies.Prerequisite: COP2270

CET2880C
Digital Forensic
4.00 credits
This is an introductory digital forensics course for students who are studying cybersecurity, electronics or computer engineering technologies. In this course, students will learn the setup and use of an investigator's laboratory, how to perform data acquisition, web forensics, email forensics, mobile forensics, network analysis, and file recovery.

CET3126C
Computer Architecture
4.00 credits
This course is intended for upper division students majoring in Electronics Engineering Technology as well as Information Systems Technology. This course introduces the study of advanced microprocessor design.Students will learn the basic organization of computer systems including instruction-set architecture, execution pipeline, memory hierarchy, virtual memory, and I/O subsystems.Students also learn advanced processor microarchitecture issues such as dynamic instruction scheduling, branch prediction, lock-up free caches, instruction-level parallelism, multiple instruction fetch/issuing, speculative execution, etc.to improve computer processor performance.Students will experimentally verify microarchitecture designs using industry standard microarchitecture simulators.

CET3383C
Software Engineering I
4.00 credits
This upper division course is for students majoring in B.S. in Information Systems Technology or B.S. in Electrical and Computer Engineering Technology. The student will learn the basic principles and concepts of software engineering; system requirements; modeling and testing; object-oriented analysis and design; testing and validation; configuration management; and the analysis, design and programming of extensible software systems. Prerequisite: COP2800.

CET4190C
Applied Digital Signal Processing
4.00 credits
This is an upper division level course for students majoring in electronics engineering technology. Students will learn how to model digital signal processing (DSP) systems, apply the Z transform, and develop algorithms for convolution, correlation, the Discrete Fourier Transform (DFT), and the Fast Fourier Transform (FFT). Students will apply these concepts in the design and implementation of digital filters and DSP algorithms in an embedded system. Prerequisite: CET3126C.

CET4663C
Electronic Security
3.00 credits
This is an upper division course for students who are majoring in electronics engineering technologies. The student will learn information and communication security principles for computer systems and networks including authentication, protection, security models, cryptography, applications, and public policy, along with case studies. Prerequisite: CET2123C, COP2270.

EET1015C
Direct Current Circuits
4.00 credits
This course is intended for students majoring in electronics engineering technology and related disciplines. Students will learn basic electrical safety, the various basic electrical components and resistive circuit network analysis. Students will learn to verify and apply basic theories and principles through hands-on, laboratory experiments utilizing modern testing equipment. Prerequisite: MAC 1105.

EET1025C
Alternating Current Circuits
4.00 credits
This course is intended for students majoring in electronics engineering technology and related disciplines. Students will learn inductance, capacitance, vector notation, AC circuits, impedance, phase shift, networks, transformers, and resonance. Students will apply and verify theories and principles through hands-on, laboratory experiments utilizing modern testing equipment. Prerequisite: EET 1015C; Pre/Corequisite: MAC 1114 or 1147.

EET1033C
Electrical Fundamentals
4.00 credits
This course is designed for students obtaining a CCC or AS degree in Engineering Technology, and related disciplines. The student will learn the basic concepts of electronics principles including Direct Current, Alternating Current, Series and Parallel circuits topologies, Basic electronics components, electronics measure tools and software simulation tools.

EET1082
Introduction to Electronics
3.00 credits
Learn by building practical electronic circuits. Survey course suitable for both majors and non-majors. Instructor and tutors available to assist in project completion. Topics include: schematics, pictorials, amplifiers, oscillators, burglar alarms, radios, digital circuits. Students will develop individual career plans and learn about employment opportunities within the field.

EET1141C
Electronics 1
4.00 credits
This course is intended for students majoring in Electronics Engineering Technology or related fields. Students will learn how to apply electronic principles to analog circuits and systems, including semiconductor diodes, applying the fundamental theory of transistors and other solid-state devices; analysis of amplifiers, oscillators, and other applications using a sinusoidal wave. Students also learn basic safety procedures to follow when working in an electronics laboratory and with electronic circuits and systems. Prerequisite: EET1025C and MAC 1114 or MAC 1147.

EET2101C
Electronics 2
4.00 credits
This course is intended for students majoring in electronics or computer engineering technologies. Students will learn how to apply electronic principles to analog circuits including transistor amplifiers, feedback and frequency response of linear circuits, operational amplifiers, MOSFET and oscillators. Prerequisite: EET 1141C.

EET2323C
Analog Communications
4.00 credits
This course is designed for students majoring in Electronics Engineering Technology, Telecommunications Engineering Technology, and related disciplines. Students will learn the principles of radio wave transmission and reception, including AM and FM transmitters, receivers, single sideband, television and digital data transmission lines, wave propagation antennas and microwaves. Prerequisite: EET 1141C.

EET2351C
Digital and Data Communications
4.00 credits
This course is intended for students majoring in Electronics or Computer Engineering Technology. It provides a theoretical and practical background in the basic concepts and applications of digital and data communications. Students will learn analog-to-digital (A/D) and digital-to-analog (D/A) conversions; data communications codes and standards; wired and wireless digital communications; modulation, transmission impairment, the telephone system, modems, multiplexers, and electrical interface standards. Prerequisite: CET 2123C.

EET3716C
Advanced System Analysis
4.00 credits
This is an upper division level course for students majoring in electronics engineering technology designed to prepare students to perform electrical circuit systems analysis using Laplace transform and partial fraction expansion. Students will learn theorems, Fourier series, frequency response and bode plots, and their application towards practical systems. Prerequisite: EET 1025C and MAC 2312.

EET4158C
Linear Integrated Circuits and Devices
4.00 credits
This is an upper division level course for students majoring in electronics engineering technology designed to provide students with practical skills and knowledge needed for application of operational amplifiers, comparators, phase-locked loops, timers, regulators, other integrated circuits in electronic systems. Students learn to apply these skills towards the design of amplifiers, active filters, oscillators, differentiators, integrators and other miscellaneous integrated circuit based systems. Prerequisite: EET 3716C.

EET4165C
Senior Design 1
3.00 credits
This project-based course is designed to synthesize students' knowledge of the analysis, design, manufacturing, and testing of electronic systems. Students will design experiments, explore professional ethics, practice professional oral and written communications, conduct project feasibility studies, and perform project scheduling. Students learn about human factors, intellectual property, and liability issues. Department approval required.

EET4166C
Senior Design 2
2.00 credits
Senior Design 2 is a project-based experience course in which students apply all of the skills they have acquired to analyze,

design, simulate, synthesize, and test a complete system. Prerequisite EET 4165C. Department approval required.

EET4730C
Feedback Control Systems
4.00 credits
This upper division course for students majoring in electronics and computer engineering technology, is designed to introduce students to the analysis of circuit networks and control systems. Students learn about stability and compensation considerations, using root locus, the Nichols chart, and Bode plots; simulation techniques; and how to apply these principles to build and test control systems. Prerequisite: EET 3716C.

EET4732C
Signals & Systems
4.00 credits
This course is intended for upper division students majoring in Electronics Engineering Technology. Students will learn the theory and the mathematical techniques used in analyzing continuous-time linear systems. Students will learn continuous-time signal and systems analysis, the input-output relationships of linear time-invariant (LTI) systems, transient and steady state analysis, frequency domain analysis and Fourier analysis. Students will analyze and characterize LTI systems using Laplace transforms. Prerequisite: EET 3716C.

ETI1152C
Mechanical Measurement & Instrumentation
3.00 credits
This course provides the basic foundation for mechanical measurement techniques used in manufacturing environments. Students will learn to integrate the concepts, principles, and techniques of mechanical measurement with the use of various types of instruments including micrometers, verniers, calipers, gages, and other types of measuring equipment.

ETI1701
Industrial Safety
3.00 credits
This course provides the student with the knowledge and skills to recognize hazardous situations in industrial plants and the precautions to be observed and practiced to perform work activities safely. Among the topics covered are industrial safety hazards, electrical safety, working with chemicals, gases, and solvents, protective equipment, and safe working conditions.

ETI2670
Engineering Economic Analysis
3.00 credits
This course is designed for students who are majoring in any engineering discipline. Students will learn the basic methods of engineering cost analysis including equivalence, value measurement, interest relationships and decision support theory and techniques as applied to capital projects. Various problem solving methods will be used for decision making, multiple alternatives and uncertainty. Prerequisite: MAC1105.

ETI4480C
Applied Robotics
4.00 credits
This is an upper division level course designed as an introduction to robotics programming and includes robotic applications for multifunction part manipulation and motion with stepper and servo-motors. Students will learn topics related to robotic design including robotic vision, motion planning, sensing and sensors, actuators, navigation systems, mobility, forward and inverse kinematics, and path planning. Prerequisite: COP 2270, CET 2123C.

ETP2040C
Electric Power Distribution
4.00 credits
This is a required course for all students pursuing a certificate in solar photovoltaic energy generation. The student will acquire an understanding of multi-phase power transmission, how to connect to the electric grid and the major components used in electric power distribution including: power transformers, circuit breakers, transmission lines, reclosures, relay coordination, fuses, motors and generators. The student will learn about the maintenance, troubleshooting and protection of these devices against lightning and other abnormal conditions through hands-on laboratory experiments utilizing modern testing and simulation equipment. Prerequisite:EET1033C

ETP2410C
Design, Installation and Operation of Solar PV Systems
4.00 credits
This is a required course for all students pursuing a certificate in solar photovoltaic energy generation. The student will learn about solar photovoltaic (PV) systems and the different components comprising the system including: PV panels, controllers and the batteries used with PV systems. The student will learn to size, install, maintain, troubleshoot and repair the PV system through hands-on laboratory experiments utilizing modern testing and simulation equipment. Prerequisite: EET1033C

ETP2501C
Introduction to Alternative and Renewable Energy
3.00 credits
This course is an introductory course designed to prepare students to enter the field of renewable energy and green technology and to the concepts of renewable energy. The student will examine Solar photo-voltaics, solar power and tracking systems, charge controllers and inverters, Wind power systems, Biomass and geothermal power generation. Prerequisite: EET1033C

ETP3240
Power Systems
3.00 credits
This is an upper division level course for students majoring in electronics engineering technology covering specific issues of electrical power systems. Students learn power factor, three phase circuits, and transformers. Prerequisite: EET 1025C.

ETP3320
Introduction to Renewable Energy Technology
3.00 credits
In this course, students will learn renewable energy theory and applications. This course focuses on solar photo-voltaics, solar power and tracking systems, charge controllers and inverters, wind power systems, biomass and geothermal power generation. In addition, this course covers the integration with electrical grid, production and end user systems. Prerequisite: EET 2101C.

ETS1603C
Introduction to Robotics
4.00 credits
This is an introductory level course designed as an introduction to robotics and robotic applications. Students learn topics related to robotic design including robotic terminology, robotic programming, sensing and sensors, actuators, modeling and sensing, robotic platforms, and the application of artificial intelligence in robotics. Laboratory activities provide hands-on application of concepts and theories.

ETS2632C
Computer Integrated Manufacturing
3.00 credits
An introduction into the fundamentals of Computer Integrated Manufacturing as it relates to theory, operation, setup, safety, and practices. Students will learn the application of Computer Aided Drawing (CAD) and Computer Aided Manufacturing (CAM) software to develop prototypes. Pre/Corequisite: MAC1105.

ETS2673C
Programmable Logic Controls
4.00 credits
This course is intended for students majoring in Electronics Engineering Technology and Advanced Manufacturing. Students will learn the principals of PLC's including hardware, programming, and troubleshooting. Students will develop advanced working programs, and troubleshoot hardware and software communication problems. Prerequisite: CET1110C.

Engineering Technology-General

ETI1040
Introduction to Bioscience Manufacturing
3.00 credits
This course introduces students to the field of bioscience manufacturing. Topics will include basic principles of the industry, large-scale process development and the future of the bioscience industry. Current Good Manufacturing Practices (cGMPs), and the nature and delivery system of products will also be discussed.

ETI1172
Introduction to Quality Assurance
3.00 credits
This course describes the role and aspects of quality systems and Regulatory affairs in research laboratories, regulated companies, and firms that comply with voluntary standards. Topics include stages in development and submission of drugs and medical devices, patents legislation, and quality systems such as auditing, standard procedures, good manufacturing and laboratory practices.

ETI1622
Concepts of Lean and Six Sigma
3.00 credits
This course is designed for students who are preparing for careers in the manufacturing industry. Students will learn the basic concepts, frameworks, and techniques used in six sigma, including total quality philosophies, the calculation of six sigma and other vital statistics, tools of lean six sigma, and knowledge of various methodologies.

ETI1644
Advanced Manufacturing Supply Chain
3.00 credits
This course is designed to provide students who are preparing to be manufacturing support technologists with the fundamental concepts of advanced manufacturing supply chain management (SCM) principles. Students will learn how to use manufacturing planning and control systems to coordinate material, labor, capacity and other resources to optimize manufacturing operations. Students also learn the key features of automated systems that can be used to manage the supply chain process.

ETI2404
Advanced Manufacturing Technology
3.00 credits
This is a course for students intending to work in manufacturing environments. Students will learn the basic concepts about advanced manufacturing operations and processes, including sourcing materials, production planning and process monitoring, and control to distribution activities. Students also review the facility and regulatory requirements needed to support manufacturing operations. Activities may include facility tours and site visits.

ETM1315C
Applied Pneumatics and Hydraulics
3.00 credits
This course prepares students to perform mechanical maintenance on industrial equipment and devices. Students learn the theory and application of fluid mechanics, how to calibrate metering devices, and conduct elementary hydraulic tests. Pre/corequisite: MAC 1105 .

English Language & Literature

AML2010
American Literature 1
3.00 credits
American Literature from Colonial times to the Civil War. Prerequisites: ENC 1101, 1102.

AML2020
American Literature 2
3.00 credits
American literature from the Civil War to the present. Prerequisites: ENC 1101, 1102.

AML2600
African American Literature
3.00 credits
A study of African American historical and contemporary literature from various genres such as poetry, fiction, narratives, speeches, films, and drama. Prerequisite of ENC 1101 with a Grade of "C" or higher, or equivalent.

CRW2001
Creative Writing 1
3.00 credits
Imaginative writing in selected genres.

CRW2002
Creative Writing 2
3.00 credits
Imaginative writing in selected genres.

ENC1101
English Composition 1
3.00 credits
This course introduces students to rhetorical concepts and audience-centered approaches to writing including composing processes, language conventions and style, and critical analysis and engagement with written texts and other forms of communication. Learning outcomes: students will apply rhetorical knowledge to communicate for a range of audiences and purposes; students will employ critical thinking to analyze forms of communication; and students will engage in writing processes that involve drafting, revising, and reflecting. Prerequisite: Student must meet the Developmental Education reading and writing requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption). Students who complete this course will be awarded the Fundamentals of Written Communication Digital Badge. Writing Intensive Course.

ENC1102
English Composition 2
3.00 credits
This is the second required general education core course in college-level writing. Students will learn the conventions of standard edited American English. Students will compose informative and persuasive essays, write responses to a variety of literary genres, and/or nonfiction, and produce a documented paper based on research. Prerequisite: ENC1101. Writing Intensive Course.

ENC1112
Essential Elements of English Grammar
1.00 - 3.00 credits
This course is designed for students whose writing demonstrate a need for continued instructional support. Course content is individualized based on specific student needs. This course is repeatable. Prerequisites: Demonstration of readiness through placement testing or alternate methods or ENC0021 with a grade of "S".

ENC1113
Writing Skills Review
1.00 - 3.00 credits
This course is designed for students whose writing and/or English language skills test scores demonstrate a need for continued instructional support and features self-assessment grammar diagnostics. Students will learn the principles of composition via the writing process: planning, drafting, revising, finishing and editing. Note: This variable credit course is repeatable. Prerequisites: Non-demonstration of readiness through placement testing or alternate methods or ENC0021 with a grade of "S".

ENC2300
Advanced Composition and Communication
3.00 credits
This writing-based course addresses techniques of critical thinking, persuasion, and argumentation. Students will refine their composition skills and develop their oral communication skills by examining and discussing a range of issues. Prerequisites: ENC1101, 1102 or equivalent with a grade of "C" or better. Writing Intensive Course.

ENG2012
Literary Theory
3.00 credits
This course introduces students to the study of literary criticism. Students will discuss, analyze, and write about literature through the lens of contemporary critical theory. Prerequisite(s): ENC 1101.

ENL2012
English Literature 1
3.00 credits
A survey of major British writers from Chaucer through the 18th century. Required of English majors. Prerequisites: ENC 1101, 1102 or equivalent.

ENL2022
English Literature 2
3.00 credits
A survey of major British writers from the 18th century through the contemporary period. Required of English majors. Prerequisites: ENC 1101, 1102.

LIT2000
Introduction to Literature
3.00 credits
In this course, students will be assigned readings representative of a broad range of literary genres and cultures. These readings will cover a variety of literary movements and historical eras. The readings will include selections from the Western canon. Written analysis of literary works may be required. Students will be provided with opportunities to practice critical interpretation. Student learning outcomes: students will identify a variety of literary movements, historical

eras, and/or cultural contexts; and students will demonstrate critical thinking and analytical skills. Prerequisite: ENC 1101. Writing Intensive Course.

LIT2090
Contemporary Literature
3.00 credits
A survey of contemporary prose and poetry. Prerequisites: ENC 1101, 1102 or equivalent.

LIT2120
A Survey of World Literature
3.00 credits
This course examines world literature from the mid-renaissance to the present and includes works from the western canon. Students will analyze literary works that exemplify human experience, exploring their connections to historical contexts, ideas, and cultural developments. Through this study, students will develop critical thinking skills and gain understanding of how literature reflects and influences people across time periods and societies. Writing intensive course. Prerequisites: ENC 1101, 1102 or equivalent. Writing Intensive Course.

LIT2480
Issues in Literature & Culture
3.00 credits
This course explores world literature and includes works from the western canon. Through oral presentations and written assignments, students will critically analyze literary texts, connecting them to broad world issues, historical contexts, and philosophical ideas. By engaging in practical investigations and critical analysis, students will develop their ability to think critically about human values as expressed through literature and its intersections with other humanities disciplines. Prerequisite: ENC 1102. Writing Intensive Course.

English Language and Literature - College Preparatory

ENC0015
Developmental Writing I
4.00 credits
Developmental Writing I is a college preparatory writing course. Students will learn to address effective sentence and paragraph development. Lab time required. Prerequisite: Non-demonstration of readiness through placement testing or alternate methods.

ENC0025
Developmental Writing II
4.00 credits
Developmental Writing II is an intermediate college preparatory writing course. Students will learn to address effective sentence, paragraph, and essay development using standard edited American English. Lab time required. Prerequisite: Non-demonstration of readiness through placement testing or alternate methods.

ENC0027
Introduction to College Writing through Reading
3.00 credits
This course introduces students to college level composition and reading. Students will use the writing process to compose effective sentences, paragraphs, and essays using standard edited American English in response to various reading materials. Students will demonstrate proficiency in literal and critical comprehension by using a variety of reading strategies. Prerequisite: Non-demonstration of readiness through placement testing or alternate methods.

Entrepreneurship

ENT1501
Fundamentals of Changemaking and Social Innovation
3.00 credits
This course introduces students to the work of changemaking and the field of social innovation. Students will explore principles of social innovation and social change, while developing the skills to analyze social issues, generate solutions to those issues, and become an effective social change agent.

ENT2201
Introduction to Lean Start-Up
3.00 credits
The student will learn how successful start-ups find a repeatable, scalable business model that creates value for themselves and customers. In this experientially driven course, student teams develop, validate and refine a business model by creating hypothesis, designing products/services, testing the hypotheses, and reflecting on what has been learned. Prerequisite: GEB2112

ENT2212
Entrepreneurial Leadership
3.00 credits
The student will learn key skills and traits of successful entrepreneurs. Students will explore the notion of values-based business formation, personal strength and weakness identification, leadership for team building, project and personal time management, and story-telling.

ENT2270
Family Business Management
3.00 credit
This course covers special issues facing entrepreneurial and family businesses such as choice of organizational form, business planning, tax and compensation planning, business valuation, and succession strategies.Time is also devoted to the unique challenges often found in family business context, such as dealing with family conflicts, how to motivate and

evaluate employees when a mix of family and non-members are involved, and planning for succession.

ENT2421
Funding Your Venture
3.00 credit
This course focuses on critical skills necessary to develop appropriate funding strategies for new venture creation and growth. Students will explore a variety of ways to raise capital and gain an understanding of investors' expectations and how to evaluate the advantages and pitfalls of various sources of capital.

ENT2502
Starting and Growing a Social Venture
3.00 credits
The course explores the start-up, growth, and management of social entrepreneurship. Social ventures share attributes but also differ from for-profits in intent and practice. The student will learn the elements of integration, innovation; development and management of a business within and existing corporate culture. Ideation, venture creation, resource acquisition, and growth management are also addressed.

Environmental Science

EVR1001
Introduction to Environmental Science
3.00 credits
This course is a survey of basic chemical, biological, and physical principles of environmental science and their applications to environmental issues. This course is appropriate for students in a wide range of disciplines or programs. Student learning outcomes: students will apply critical thinking to analysis and interpretation of environmental information and model output; students will apply the scientific method to explain natural experiences and phenomena; students will explain the basic chemical, biological, and physical principles of environmental science; and students will use empirical evidence to describe the historical and modern context of environmental problems and their solutions.

ESL For Academic Purposes

EAP0100
Speech/Listening 1
3.00 credits
Students develop the ability to understand frequently used words in oral contexts and understand and respond appropriately to simple phrases and questions. Corequisite: EAP 0100L.

EAP0100L
Speech/Listening 1 Laboratory
1.00 credits
The student will practice oral production and aural comprehension of spoken American English. This practice will be related, but not limited to the material taught in EAP 0100. Corequisite: EAP0100.

EAP0120
Reading Level 1
3.00 credits
Students develop the ability to comprehend limited written materials.

EAP0140
Writing Level 1
3.00 credits
Students develop the ability to write appropriate phrases and short sentences on personal topics. Corequisite: EAP 0140L.

EAP0140L
Writing Level 1 Laboratory
1.00 credits
This lab will provide support and additional practice as well as focus on a multi-skilled approach to writing as students develop their abilities in meeting the competencies of EAP 0140. Corequisite: EAP0140.

EAP0160
Grammar Level 1
3.00 credits
Students develop the ability to understand and use basic, high frequency grammatical structures.

EAP0200
Speech/Listening 2
3.00 credits
Students continue to develop the ability to understand frequently used words in oral contexts and understand and appropriately respond to simple phrases and questions. Prerequisite: EAP 0100; Corequisite: EAP 0200L.

EAP0200L
Speech/Listening 2 Laboratory
1.00 credit
This course continues to give practice in oral production and aural comprehension of spoken American English. This practice will be related to, but not limited to, the material taught in EAP0200. Prerequisite: EAP0100; Corequisite: EAP0200.

EAP0220
Reading Level 2
3.00 credits
Students continue to develop the ability to comprehend text appropriate to the level with emphasis on developing reading skills and vocabulary. Prerequisite: EAP0120.

EAP0240
Writing Level 2
3.00 credits
Students continue to develop writing skills in the context of guided discourse on personal topics with an emphasis on logical thought and mechanics. Prerequisite: EAP 0140; Corequisite: EAP 0240L.

EAP0240L
Writing Level 2 Laboratory
1.00 credits
This lab will provide additional practices, as well as focus on multi-skills as students develop their abilities in meeting the competencies of EAP 0240. Prerequisite: EAP0140; Corequisite: EAP0240.

EAP0260
Grammar Level 2
3.00 credits
Students continue to develop control of basic grammatical structures and statement/question patterns. Prerequisite EAP 0160.

EAP0300
Speech/Listening 3
3.00 credits
Students develop speaking and listening skills necessary for participating in classroom discussions with an emphasis on clarification through rewording and asking questions. Prerequisite: EAP 0200; Corequisite: EAP 0300L.

EAP0300L
Speech/Listening 3 Laboratory
1.00 credit
Students practice speaking and listening skills necessary for participating in classroom discussions with an emphasis on clarification through rewording and asking questions. Prerequisite: EAP0200; Corequisite: EAP0300.

EAP0320
Reading Level 3
3.00 credits
Students develop the ability to read texts on familiar and basic academic topics with an emphasis on vocabulary expansion and application of critical reading skills. Prerequisite: EAP0220.

EAP0340
Writing Level 3
3.00 credits
Students develop the ability to write basic, structured academic paragraphs on familiar topics and execute other academic writing tasks. Prerequisite: EAP 0240; Corequisite: EAP 0340L.

EAP0340L
Writing Level 3 Laboratory
1.00 credit
Students develop the ability to write basic, structured academic paragraphs on familiar topics and execute other academic writing tasks. Prerequisite: EAP0240; Corequisite: EAP0340.

EAP0360
Grammar Level 3
3.00 credits
Students develop the ability to use intermediate-level grammatical structure appropriate to classroom discussion and the writing of academic paragraphs with an emphasis on increased accuracy. Prerequisite: EAP 0260.

EAP0385
Intermediate 1 - Integrated Writing & Grammar
6.00 credits
Students will learn how to write paragraphs using intermediate grammar and rhetorical structures.

EAP0386
Intermediate 1 - Integrated Reading, Speech & Listening
6.00 credits
Students will learn to develop proficiency in reading level-appropriate text by listening to short oral discourse and discussing academic materials. Emphasis is on vocabulary expansion and application of strategies that assist in comprehension and communication. Prerequisites: EAP 0200, 0220, or equivalent proficiency.

EAP0400
Speech/Listening 4
3.00 credits
Students continue to develop speaking and listening skills necessary for participating in classroom discussions with an introduction to oral presentation and critical listening skills. Prerequisite: EAP0300; Corequisite: EAP0400L.

EAP0400L
Speech/Listening 4 Laboratory
3.00 credits
Students continue to practice speaking and listening skills necessary for participating in classroom discussions with an introduction to oral presentation and critical listening skills. Prerequisite: EAP0300; Corequisite: EAP0400.

EAP0420
Reading Level 4
3.00 credits
Students continue to develop academic reading abilities including text on contemporary and social topics with an emphasis on extensive reading and the enhancement of critical reading skills. Prerequisite: EAP 0320.

EAP0440
Writing Level 4
3.00 credits
Students develop the ability to write more sophisticated, structured academic paragraphs in various rhetorical modes and execute other academic writing tasks. Prerequisite: EAP0340; Corequisite: EAP0440L.

EAP0440L
Writing Level 4 Laboratory
1.00 credit
Students continue to practice developing to write more sophisticated, structured academic paragraphs in various rhetorical modes and execute other academic writing tasks. Prerequisite: EAP 0340L; Corequisite: EAP 0440.

EAP0460
Grammar Level 4
3.00 credits
Students develop the ability to use intermediate-level grammatical structure appropriate to classroom discussion, oral presentation, and the writing of more sophisticated academic paragraphs with an emphasis on increased accuracy. Prerequisite: EAP 0360.

EAP0485
Intermediate 2 - Integrated Writing & Grammar
6.00 credits
Students will learn to refine paragraphs using intermediate grammar and rhetorical structures. Prerequisites: EAP 0340, 0360, 0385, or equivalent proficiency. Co-requisite: one (1) approved college-level course recommended.

EAP0486
Intermediate 2 - Integrated Reading, Speech & Listening
6.00 credits
Students will learn to develop speaking, listening, and academic reading skills through discussions, presentations, and analysis with an emphasis on oral fluency, critical reading, and vocabulary expansion. Prerequisites: EAP 0300 or 0386, and 0320, or equivalent proficiency. Co-requisite: one (1) approved college level course.

EAP0493
Accelerated Intermediate Speech and Grammar
6.00 credits
In this accelerated alternative course for EAP 0300, 0360, 0400, and 0460, students will learn intermediate-level grammar and vocabulary, and will enhance their oral communication proficiencies via brief lectures, oral presentations, and classroom discussions, improving spoken fluency, accuracy, and interpersonal skills in English. Prerequisites: EAP 0220 and 0240 or appropriate COMPASS score; Corequisite: EAP 0494.

EAP0494
Accelerated Intermediate Reading and Writing
6.00 credits
In this accelerated alternative course for EAP courses 0320, 0340, 0420, and 0440, students will learn English while reading intermediate-level academic texts, expand their vocabulary, and enhance their writing proficiency with structured academic tasks. Prerequisite: EAP 0220 and 0240 or appropriate COMPASS score; corequisite: EAP 0493.

EAP1500
Speech/Listening Level 5
3.00 credits
Students develop communication, organization, and pronunciation skills necessary for effective academic presentation and discussion with an introduction to lecture note taking. Prerequisite: EAP 0400; Corequisite: EAP 1500L.

EAP1500L
Speech/Listening Level 5 Laboratory
1.00 credit
Students develop communication, organization, and pronunciation skills necessary for effective academic presentation and discussion with an introduction to lecture note taking. Prerequisite: EAP 0400L; Corequisite: EAP 1500.

EAP1501
Accent Reduction 1
3.00 credit
Students improve their pronunciation of American English, including stress, rhythm, and intonation. The phonetic structure of consonant sounds is systematically analyzed, and students are given practice in correctly pronouncing these sounds and patterns in context. Prerequisite: EAP0400; Corequisite: EAP1501L.

EAP1501L
Accent Reduction 1 Laboratory
1.00 credits
Students improve their pronunciation of American English including stress, rhythm, and intonation. The phonetic structure of consonant sounds is systematically analyzed, and students are given practice in correctly pronouncing these sounds and patterns in context. Prerequisite: EAP 0400L; Corequisite: EAP 1501.

EAP1502
Accent Reduction 2
3.00 credits
Students improve their pronunciation of American English including stress, rhythm, and intonation. The phonetic structure of vowel sounds is systematically analyzed, and students are given practice in correctly pronouncing these sounds and patterns in context.

EAP1502L
Accent Reduction 2 Laboratory
1.00 credit
Students improve their pronunciation of American English including stress, rhythm, and intonation. The phonetic structure of vowel sounds is systematically analyzed, and students are given practice in correctly pronouncing these sounds and patterns in context. Prerequisite: EAP0400; Corequisite: EAP1502.

EAP1520
Reading Level 5
3.00 credits
Students develop the ability to comprehend advanced academic readings on a variety of topics. Prerequisite: EAP0420.

EAP1540
Writing Level 5
3.00 credits
Students develop the ability to write more sophisticated, structured academic paragraphs and academic essays in various rhetorical modes and execute other academic writing tasks. Prerequisite: EAP0440; Corequisite: EAP1540L.

EAP1540L
Writing Level 5 Laboratory
1.00 credit
Students develop the ability to write basic structured academic essays with an emphasis on accuracy and cohesiveness and execute other academic writing tasks. Prerequisite: EAP 0440L; Corequisite: EAP 1540.

EAP1560
Grammar Level 5
3.00 credits
Students develop the ability to use complex grammatical structures appropriate for academic presentations, discussions, and essays at this level. Prerequisite: EAP 0460.

EAP1581
Advanced 1 Combined Skills: Content-based English
6.00 credits
This course is intended for Advanced I EAP students and prepares the non-native speaker of English for college level study. Students will learn by focusing on speaking, listening, grammar/vocabulary, writing, and reading comprehension skills as they relate to selected Education courses. Prerequisites: EAP 0400, 0420, 0440, and 0460. Corequisite: EEC 1000, or EEC 1200,

or EEC 1311, or EEC 2202. Recommended preparation: Appropriate passing score on the COMPASS Test.

EAP1585
Advanced 1 - Integrated Writing & Grammar
6.00 credits
Students will learn to write essays by developing advanced grammar and rhetorical structures. Prerequisites: EAP0440 or 0485, and 0460, or equivalent proficiency. Co-requisites: one (1) approved college level course

EAP1586
Advanced 1 - Integrated Reading, Speech & Listening
6.00 credits
Students will learn to comprehend academic and other authentic reading materials and effectively participate in college-level oral/aural tasks by applying appropriate learning strategies. Prerequisites: EAP 0420 or 0486, and 0400, or equivalent proficiency. Co-requisite: one (1) approved college level course.

EAP1600
Speech/Listening Level 6
3.00 credits
Students further develop communication skills necessary for full participation in mainstream college classrooms including comprehension of extensive discourse. Prerequisite: EAP 1500L; Corequisite: EAP 1600L.

EAP1600L
Speech/Listening Level 6 Laboratory
1.00 credits
Students further develop communication skills necessary for full participation in mainstream college classrooms including comprehension of extensive discourse. Prerequisite: EAP 1500L; Corequisite: EAP 1600.

EAP1620
Reading Level 6
3.00 credits
Students develop the ability to comprehend and interpret authentic college-level text in content areas by applying appropriate reading strategies. Prerequisite: EAP 1520.

EAP1640
Writing Level 6
3.00 credits
Students develop the ability to write a variety of college-level essays with sophistication, fluency, and accuracy and execute other academic writing tasks. Prerequisite: EAP 1540; Corequisite: EAP 1640L.

EAP1640L
Writing Level 6 Laboratory
1.00 credit
Students further develop the ability to write a variety of college-level essays with sophistication, fluency and accuracy, and execute other academic writing tasks. Prerequisite: EAP 1540L; Corequisite: EAP 1640.

EAP1660
Grammar Level 6
3.00 credits
Students develop the ability to use complex grammatical structures appropriate for effective academic presentations, discussions, and essays at this level. Prerequisite: EAP1560.

EAP1683
Combined Accelerated Advanced Reading/Writing level 6
6.00 credits
This is an accelerated alternative course for EAP courses 1520, 1540, 1620, and 1640. Students will learn to complete college-level reading and writing assignments. Prerequisite: EAP 0420, 0440 or appropriate placement score on COMPASS exam (87-92 on reading subtest) and writing sample; Corequisite EAP 1689 Combined Accelerated Advanced Speech, Listening, and Grammar.

EAP1685
Advanced 2 - Integrated Writing & Grammar
6.00 credits
Students will learn to refine essays by developing advanced grammar & rhetorical structures. Prerequisites: EAP1540 and 1560, or 1585, or equivalent proficiency. Co-requisites: one (1) approved college level course

EAP1686
Advanced 2 - Integrated Reading, Speech & Listening
6.00 credits
Students will learn to comprehend academic and other authentic reading materials and effectively participate in college-level oral/aural tasks by applying appropriate learning strategies. Prerequisites: EAP1586 or 1520, and 1500. Co-requisite: one (1) approved college level course.

EAP1689
Combined Accelerated Advanced Speech, Listening and Grammar Level 6
6.00 credits
This is an accelerated alternative course for EAP courses 1500, 1560, 1600, and 1660. Students will learn oral communication and lexico-grammatical skills necessary for college-level courses. EAP 0420 and 0440 or appropriate placement score on COMPASS exam (81-88 on grammar subtest and 83-91 on listening subtest) and writing sample; Corequisite: EAP 1683 Combined Accelerated Advanced Reading and Writing.

Fashion

CTE1050
Introduction to Fashion Design and Related Industries
3.00 credits
In this course, the student will learn the functions and processes of the fashion industry from the designer's and the merchant's perspective. The student will also explore how products go from concept, development, production, marketing and

finally, the consumer. The course explores the global interrelationships of the fashion industry segments.

CTE1401
Textiles
3.00 credits
This is a survey course designed for students majoring in fashion-related curriculum or with a general interest in textile materials. Students will learn basic elements of the transformation from fiber of textiles into finished goods. The course provides insights into textile manufactures with a primary focus on general textile applications relative to end-use consumer products. Students will learn the terminology needed for effective communication throughout the fashion supply chain, gain insight and appreciation for the relative value of textile products and the appropriateness of specific textile uses.

CTE1721C
Fashion Design I
3.00 credits
This course explores foundations of the design process, the elements and principles of design. Elements of design described here are point, line, shape, form, space, color, and texture. Principles of design include balance, proportion, perspective, emphasis, movement, pattern, repetition, rhythm, variety, harmony, and unity. The student will develop, present and execute design ideas exploring both elements and principles of design. Students also develop sketchbooks detailing the development of each project. Prerequisite: CTE 1743C

CTE1743C
Patternmaking Level 1
3.00 credits
This course will focus on the development of basic blocks: bodice, skirt, sleeve and pant. The 3 basic tenets of design development, dart manipulation, adding volume and contouring are reviewed, in accordance with standard production practices.The student will learn to draft and manipulate the various garments and develop toiles and final patterns.

CTE1801
Introduction to Fashion Merchandising and Marketing
3.00 credits
This introductory class provides an exposure to merchandising and terminology. Students will learn the entrepreneurs who influence the industry, career possibilities and an overview of the components of a manufacturer's or retailer's promotional techniques.

CTE1841C
Apparel Evaluation & Production
3.00 credits
This is an introductory course in the apparel development process. Students will learn to facilitate the communication and coordination of pre-product development tasks achieved through linking design, costing, and manufacturing technology in the production setup for each design. Students will learn how outsourcing affects the product development process in editing garment designs and the line development calendar. Prerequisite: CTE1401

CTE1942
Fashion Industry Internship
3.00 credits
This internship course provides eligible students with placement in premier fashion settings and with the professional and practical experiences needed to further their education in a variety of fashion-based positions. Students control the internship selection process and work with an internship coordinator in the revisions of their resumes and schedule of interviews within the network of fashion companies. Fashion internships are available in the areas of design, merchandising, buying, show-room, and fashion public relations.

CTE2111C
Digital Fashion Portfolio
3.00 credits
In this course, the fashion merchandising student will create their capstone portfolio. The student will create marketing and merchandising plans, complete with visual representations for 3 or more concepts. Marketing channels to be explored include but are not limited to online, social media and brick and mortar. The student will integrate the use of Adobe Photoshop, Adobe Illustrator and Microsoft Excel. Prerequisite: CTE 2732, CTE 2802

CTE2120
Portfolio Collection Development
3.00 credits
In this course, the student will use both hand and digital techniques to develop a physical and online portfolio. The student will also incorporate target market and research built on previous course projects to produce a professional presentation ready for the industry. Prerequisite: CTE 1841C, CTE 2732; Corequisite: CTE 1760C

CTE2301
Product Development
3.00 credits
In this course students will learn the concepts and methods by which retailers create special, store-branded merchandise for targeted customer segments. The process of product development, from research to production to distribution, is studied. Prerequisite: CTE1401L, CTE1401.

CTE2310C
Clothing Construction Methods Level 1
3.00 credits
Students will learn the basic elements of sewing utilized and incorporated into all designs in the garment industry. These garment structures form the fundamentals of sewing and are integrated into the construction methods used by each company in the applications to a specific design. Prerequisite: CTE1721C.

CTE2330C
Clothing Construction Methods Level 2
3.00 credits
This course focuses on intermediate to advanced finishing techniques.The student will learn various fabric manipulation techniques along with advanced

collar, hem and pocket finishes in original student design and pattern work. Prerequisite: CTE 1743, CTE 2310C

CTE2388
Principles of Contemporary Retailing
3.00 credits
In this course students will learn the operational segments of the fashion industry and their functions. The course focus is on the contributions employees add to sales productivity and customer satisfaction in retail establishments and on the exploration of new technologies and their impact on consumers' shopping experiences. Prerequisite: CTE1050.

CTE2342C
Clothing Construction Methods Level 3
3.00 credits
This course advances students' knowledge about materials, core properties and construction techniques that inform their choices made for silhouette creation and hands-on prototype development. Students will explore more advanced principles and techniques of unstructured draping using soft fabric for the creative interpretation and artistic development of contemporary designs. Emphasis on proportion, balance and shape as related to design aesthetics. Pre-Req CTE2330C.

CTE2610
Fashion Forecasting & Research
3.00 credits
In this course students will learn to explore and apply forecast research methods in preparation for developing, planning, purchasing, or merchandising apparel lines and collections. Using the case study method, trend research is evaluated through the use of scholarly texts, articles, databases, and relevant websites to identify opportunities for growth and profitability in a fashion business. Prerequisite: CTE1050, MAR1011

CTE2722C
Fashion Design 2
3.00 credits
The course focuses on group design work and industry partnerships that allows the student to experience real world design briefs. The student will also explore design in a corporate setting either virtually or literally under the ethos of a given corporate DNA. Projects are then reviewed and feedback is given by the community (corporate) partners. In addition, the student will experiment with new technologies including but not limited to laser cutting, 3D printing, and wearable technology. Students develop sketchbooks detailing the development process of each project. Prerequisite: CTE 1721C , CTE 2745C

CTE2732
Fashion Illustration Technology
3.00 credits
This course introduces Computer Aided Design as it applies to Fashion Design and Fashion Merchandising. Using various computer software, including but not limited to Adobe Photoshop and Adobe Illustrator, students will learn the techniques to conceptualize and communicate design ideas and collections to create industry-standard presentations.

CTE2745C
Patternmaking Level 2
3.00 credits
This course focuses the integration of flat pattern and draping. The student will learn the foundations of draping as a design development and execution technique. How to move from the form to the flat and on to the body. Prerequisite: CTE 1743C, CTE 2310C

CTE2749C
Patternmaking Level 3
3.00 credits
This course reinforces the students understanding of the art of draping and patternmaking and diverse methods the industry uses to create production patterns. Students will analyze draping and drafting techniques to create an awareness of which method is most applicable for a given situation. Analytical thinking and hands-on class experiences will strengthen students' skills, thus enabling them to expand on their creativity and provide proper fit to their creations.

CTE2760C
Creative Design
3.00 credits
In this capstone course, the student will focus on the acquisition of a multidisciplinary methodology needed to produce a collection. The student will also survey the various steps of building a collection, from conception and range planning through to design, execution and presentation. A minimum of 6 looks will be produced by the end of the semester. Prerequisite: CTE2342C and CTE2722C and CTE2749C.

CTE2800
Textile, Apparel & Retail Analysis
3.00 credits
In this course, students will learn about textile marketing of sustainable apparel and the textile value chains from product concept to the consumer. A variety of topics on global value chains, market analysis, product development, manufacturing, market and sourcing are explored. The global impact of trade and souring constraints are examined. Through readings, case studies and in-class industry presentations, students will explore a comprehensive array of contemporary issues, both social and regulatory, that help in understanding the complex value and supply chain. Prerequisite: CTE2388

CTE2802
Fashion Merchandising Strategies
3.00 credits
In this course students will gain comprehensive knowledge of the merchandising environment, including the functions and objectives of the merchandising team, the principles and techniques of today's buyers, planners, product developers, and account executives. Prerequisite: CGS1060C

CTE2836
Global Merchandising
3.00 credits
In this course students will learn the merchandising practices used around the world in fashion apparel companies, both in retail and wholesale. American merchandising theory is used as a base of comparison in the consideration of various religions, cultures, legal systems, and other global systems. Corequisite: CTE2802

Film, Radio, TV Technology

DIG3255C
Advanced Sound Design
3.00 credits
In this upper division course for BAS students in Film, Television & Digital Production students will learn advanced audio production, emphasizing audio recording, mixing, editing, overdubbing, and aesthetics. Prerequisite: RTV1240C

DIG3347C
Advanced Cinematography
3.00 credits
In this upper division course for BAS students in Film, Television & Digital Production students will learn the technical and aesthetic principles of advanced cinematography techniques. Prerequisite: RTV2246C, FIL2515C

DIG3940
Upper Division Internship
3.00 credits
In this upper division internship for BAS students in Film, Television & Digital Production students will learn to apply their knowledge and skills at an established film or television entertainment company.

DIG4345C
Digital FX & Compositing
3.00 credits
In this upper division course for BAS students in Film, Television & Digital Production students will learn the theory and practice of video compositing and motion graphics.

FIL1030
History of Film
3.00 credits
In this introductory course students will learn about the history of motion pictures, with an emphasis on American and European films.

FIL1055
American Independent film
3.00 credits
In this introductory course, students will learn about the American independent film movement with an emphasis on American directors and producers.

FIL1060
Survey of Documentary Film
3.00 credits
In this introductory course students will learn the history of nonfiction films, with an emphasis on American and European filmmakers.

FIL1100
Screenwriting 1: Introduction to Story Structure
3.00 credits
A workshop-style introductory class covering narrative script writing for film and television. Students will learn to develop a short-format screenplay incorporating three-act story structure, script elements, and standard industry formatting.

FIL1420C
Film Production 1: Introduction to the Filmmaking Process
4.00 credits
An introductory overview of the art and technology of narrative motion picture production. Students will learn basic production techniques, from pre-production through production to final screening. Corequisite: FIL2552C;

FIL1431C
Film Production 2: Cinematography and Sound
4.00 credits
An introductory course in which students will learn cinematography and sync-sound motion picture production. Prerequisite: FIL1420C; Corequisite: FIL2553C

FIL2131
Screenwriting 2: Character Development & Advanced Story Structure
3.00 credits
In this workshop-style intermediate level course students will learn about character development and various story structures for narrative motion picture screenplays. Prerequisite: FIL1100

FIL2413
Screenwriting 3
3.00 credits
An advanced course in which the fundamentals of story structure and character development introduced in Screenwriting 1 and Screenwriting 2 are refined. The student will learn how to write an outline for a feature-length motion picture. Prerequisite: FIL2131;

FIL2480C
Film Production 3: Directing
4.00 credits
An intermediate practicum in motion picture direction through the analysis of various directors' and their cinematic styles. Students will learn the role of the director by interpreting dramatic material, effectively guiding acting performances, and communicating a story visually. Prerequisite: FIL1431C, RTV1240C, FIL2553C

FIL2515C
Film Production 4: Producing the Short Film
4.00 credits
An advanced course in film production. Students will learn to apply the fundamentals of film production as introduced

in Film Production 1, 2, & 3 to the production of a portfolio-quality narrative short film. Prerequisite: FIL2480C

FIL2552C
Editing Level 1: Introduction to Editing
3.00 credits
An introductory course in which students will learn the practice of editing digital media.

FIL2553C
Editing Level 2: Intermediate Editing and Visual Effects
3.00 credits
An intermediate course in which students will learn video editing with an emphasis on sound design and visual effects. Prerequisite: FIL2552C

FIL2560C
Editing Level 3: Advanced Editing: Color Correction and Finishing
3.00 credits
An advanced course in which students will learn the practice of color correcting and finishing fiction and non-fiction projects. Prerequisite: FIL2553C

FIL2611
Film Business Marketing Distribution Exhibition
3.00 credits
Examination of the functional areas within marketing as well as the various distribution means (both current and projected) that are governing the sale of independent feature films or films financed outside of the studio system. Students learn to distribute their own selected films in this course. Prerequisite: FIL 1431.

FIL2945
Film Internship
3.00 credits
Students will learn to apply the various skills gained throughout the program in a semester long immersion at an established film entertainment company. Prerequisite: FIL2480C

FIL2951
Film Festival Experience
3.00 credits
An immersive experience in a film festival. Students engage directly with films and filmmakers through their attendance to festival screenings and professional panels and discussions. Students become acquainted with a festival's organization and develop their professional skills by participating as volunteers in a multicultural community event.

FIL3602
Production Management
3.00 credits
In this upper division course for BAS student's in Film, Television & Digital Production students will learn the theory and practice of managing film and television production with an emphasis on pre-production processes and software. Prerequisite: FIL2611, MMC2000

FIL3651
Business Proposals for Film & Television
3.00 credits
In this upper division course for BAS student's in Film, Television & Digital Production students will learn the theory and practice of business plans/grant proposals in media production funding. Prerequisite: FIL2611, MMC2000.

FIL4164
Advanced Writing for Film and Television
3.00 credits
In this upper division course in Film, Television& Digital Production students will learn the process of completing a long form motion picture or television script. Prerequisite: RTV2300, FIL2131.

FIL4585C
Production Workshop 1
4.00 credits
In this production course, students will learn and apply industry-standard pre-production and production techniques to produce a fiction or non-fiction film. Students will go through a selection process to determine their crew positions on the production. Prerequisite: DIG3347C, fil3605.

FIL4586C
Production Workshop 2
4.00 credits
In this upper division workshop for BAS Students in Film, Television & Digital Production students will learn to apply industry-standard post-production techniques to complete Production Workshop 1 projects. Prerequisite: FIL4585C

RTV1000
Fundamentals of Broadcasting
3.00 credits
In this introductory course for television and radio broadcasting, students will learn about the foundations of the American broadcast system.

RTV1240C
Sound Design
3.00 credits
In this introductory Sound Design course students will learn an overview of sound recording and audio post-production.

RTV1241C
Television Production 1
4.00 credits
An introductory overview of the practices and procedures used in a television studio. Students will learn basic operation of studio and control room equipment and work towards the completion of broadcast standard projects.

RTV1242C
Television Production 2
4.00 credits
An intermediate course in television studio production. Students will learn to implement the fundamentals as introduced in Television Production 1 to the production of scripted programs. Prerequisite: RTV1241C

RTV2243C
Directing
3.00 credits
An introductory overview of television directing. Students will learn the responsibilities of the television director in coordinating production elements and television control room techniques. Prerequisite: RTV1242C

RTV2245C
Electronic Field Production 1
4.00 credits
An introductory course in which students will learn single-camera field production and electronic news gathering. Prerequisite: RTV1242C

RTV2246C
Electronic Field Production 2
4.00 credits
In this intermediate workshop style class students will learn about documentary production. Prerequisite: RTV2245C

RTV2300
Broadcast Writing
3.00 credits
In this intermediate workshop style class students will learn broadcast writing emphasizing news, documentary, commercials, and long-form programming.

RTV2940
Television Internship
3.00 credits
In this lower division internship designed for AS students in Television Production, students will learn to apply skills and knowledge learn in the program at an established television entertainment company Prerequisite: RTV1242C

RTV2942
Spring Television Practicum
3.00 credits
This course is an advanced internship with limited enrollment requiring departmental approval. Students will learn advanced camera and lighting techniques, while assisting in the production of shows for Cable-TAP television, Miami-Dade County's official community access channel. AS degree credit only. Prerequisite: RTV 1242C.

RTV3203
The Telemundo Academy
3.00 credits
The Telemundo Academy is a project-based learning course that provides students with a fundamental understanding of the concepts and processes of short-form content production for social media and mobile video platforms. The course will be divided into four phases: development, pre-production, production, and post-production. The first portion of the course will focus on pre-production given that the quality of the final projects will be correlated to students' understanding of all elements and practices in this phase. Students will learn how research, script development, and storyboarding are critical to transforming their original concepts into successful productions. The course will cover additional fundamental skills related to: communications, leadership, marketing, and digital and social media best practices.

RTV3256C
Advanced Post Production
3.00 credits
An advanced course in which students will learn complex digital media post production techniques. Prerequisite: FIL2553C.

RTV3277C
Television Studio Production Workshop
3.00 credits
In this upper division workshop class for BAS students in Film, Television & Digital Production students will learn advanced television studio production techniques for pre-scripted programs. Prerequisite: RTV2246C, FIL2515C.

RTV3408
Ethics & Research for Non-Fiction Scripts
3.00 credits
In this upper division course students will learn research methods applicable to documentary production. Prerequisite: FIL2131, RTV2300.

RTV3810C
Broadcast Design & On-Air Promotions
3.00 credits
In this upper division course in BAS in Film, Television & Digital Production students will learn about on-air promotions with specific emphasis on layout, color, and composition.

VIC1000
Visual Communications
3.00 credits
An introductory course in which students will learn the visual aspects of film, video, photography and graphic arts, specifically dealing with design elements and principles.

Finance

FIN1930
Special Topics Seminar
1.00-3.00 credits
This course centers around topics of current interest or of special interest. Topics or focus may vary from semester to semester.

FIN2000
Principles of Finance
3.00 credits
The creation, allocation, and utilization of money, and the effect of monetary policy upon individuals, business, national and international economics. This course provides a basis for further study of monetary theory, banking, finance and securities.

FIN2010
Investments in Stocks and Bonds
3.00 credits
The basic principles of the stock market as they affect the individual investor in stocks and bonds. Investment in these securities is studied from the standpoint of the short-term and long-term investors.

FIN2031
Risk Management & Compliance
3.00 credits
This course offers an analysis of the risks faced by investors and savers interacting through both financial institutions and financial markets. It will provide insight at the risks and opportunities of doing business in today's financial markets and the challenges presented by both regulators and market participants. The course will review the increasing integration of foreign and domestic financial markets.

FIN2032
Fundamentals of Wealth Management, Institutions, Markets and Products
3.00 credits
This course is a standard introduction to the financial services profession, financial markets, and financial institutions. It touches on nearly every aspect of financial services. It assists professionals in understanding concepts, markets, products, regulations and the application of financial planning and development of wealth management skills. Prerequisite: ACG 2021, 2021L, BAN2210.

FIN2051
International Financial Management
3.00 credits
The student will learn basic concepts and principles of international finance, with consideration of the financial environment, transactions, and flows. Exchange rates, risks, and government policies affecting business are analyzed as well as management policies and decisions.

FIN2100
Personal Finance
1.00 - 3.00 credits
A study of economic and personal goals including personal budgeting, credit budgeting, borrowing money, banking facilities, the nature of investments, life insurance, casualty insurance, home ownership, stocks and bonds, and retirement plans.

FIN2642
Financial Analysis & Valuation
3.00 credits
This course will cover financial institutions, financial Investments, financial planning and analysis and international financial perspectives. It addresses core principles of value creation, merger, analysis of historical financial performance, cash flows and the identification of sources of value.

FIN2990
CBE Financial Services Operations and Specialist
1.00 – 18.00 credits
The FIN 2990 Operations and Specialist course is designed to assess students' mastery of competencies and skills necessary for a successful career in financial services. The course accelerates the development of market assessment and financial acumen competencies as well as competencies related to written and oral communication skills. The course provides learners with an exceptional opportunity for higher level study and professional growth in the field of credit and business lending. Upon successful completion of FIN 2990 learners will receive two College Credit Certificates (CCCs)—Banking Operations (CCC) and Banking Specialist (CCC). Prerequisite: ACG2001, ACG2011, ACG2011L, ACG2001L or ACG2021, ACG2021L

REE2304
Commercial Real Estate
3.00 credits
In this course the student will learn specific financial tools and techniques required to assess the feasibility of commercial real estate investment, funding and financing options, risks associated to real estate transactions and factors impacting real estate investment decisions. The student will learn how the commercial real estate process works, the different interested parties involved in the transaction, the essentials of risk and return, financing options and different phases in a commercial real estate transaction.

Fire Science

FFP1000
Introduction to Fire Science
3.00 credits
This course provides an overview of fire protection and emergency services; career opportunities in fire protection and related fields; culture and history of emergency services; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to strategy and tactics; and life safety initiatives.

FFP1301
Fire Service Hydraulics
3.00 credits
This course covers the relationship between flow, pressure, and mathematical hydraulic formulas. The course includes pump theory, pump rating, and pressure and vacuum gauges.

FFP1302
Apparatus Operations
3.00 credits
This course covers the laws, rules and driving techniques for emergency vehicles as well as a review of hydraulics. Fireground evolutions and driving make up the practical part of the course. The evolution portion of the course includes the use of pre-connected lines, tandem pumping, drafting relays, and master streams. The student should have a basic understanding of fire stream hydraulics prior to entering this course. Prerequisite: FFP 1301

FFP1505
Fire Prevention Practices
3.00 credits
The purpose of this course is to place emphasis on fire prevention through inspection, code enforcement, the use of model building and fire prevention

codes, including detailed information on the legal, economic, and political aspects of the fire inspection process.

FFP1510
Codes and Standards
3.00 credits
The purpose of this course is to familiarize students or current inspectors with the Florida Fire Prevention Code which includes NFPA 101, NFPA 1, FSS 633 and FAC 69A. Students will learn how to research the codes and apply them to inspection activities.

FFP1540
Private Fire Protection Systems 1
3.00 credits
This is a study of private fire protection and detection systems such as sprinkler and standpipe systems, chemical extinguishing systems, and detection systems and devices. Each system is discussed as to its need, construction, preventative maintenance and individual use.

FFP1740
Fire Service Course Delivery
3.00 credits
The curriculum draws from many recognized authorities in exploring the methods and mechanics of imparting information and adult learning principles. The course emphasizes techniques that have wide application in teaching situations, as well as devices for specific training areas. The course also stresses measuring teaching effectiveness, and the use of media and visual aids.

FFP1810
Firefighting Tactics & Strategy 1
3.00 credits
This course will provide students with a basic understanding of factors involved in coping with a fire emergency and determining the best use of available resources in protecting lives and property. The course emphasizes the changing nature of an emergency situation and the ways in which the fire officer can evaluate the effectiveness of their proposed incident action plan. Prerequisite: FFP 1000

FFP2120
Building Construction for the Fire Science
3.00 credits
This course will provide the student with a basic understanding of building design and construction methods which will aid in decision making processes related to fire prevention and control. Students will gain an understanding of construction principles and practices related to fire loads and behavior to make more effective, safer, and timely decisions to protect people and property from potential and actual fires.

FFP2521
Construction Documents and Plans Review
3.00 credits
This curriculum is geared towards teaching the student how to assimilate information contained in working, drawing, and specifications as they relate to the fire inspector. The curriculum includes how to interpret conventional graphic communications. Accepted standards and conventions are introduced. Symbols, abbreviations, principles of technical projection, as well as a review of geometry are included. Related worksheets are used to allow for applied experience of finding and interpreting information from authentic drawings.

FFP2720
Company Officer
3.00 credits
This course is designed to provide the student with an understanding of being a company officer through various areas of knowledge as well as solving the varied problems and situations they will be required to manage effectively in today's ever-changing fire service. The curriculum includes a review of fire department organization and administration, management theory, leadership, communications, motivation and group dynamics. Prerequisite: FFP 1000.

FFP2741
Fire Service Course Design
3.00 credits
The curriculum draws from many recognized authorities in exploring the methods and mechanics of imparting information and adult learning principles. The course emphasizes techniques that have wide application in teaching situations, as well as devices for specific training areas. The course also stresses measuring teaching effectiveness, and the use of media and visual aids. Prerequisite: FFP 1740

Food Service

FOS2203
Safety and Sanitation
2.00 credits
This course is an introduction to food environmental sanitation and safety in a food production area. Attention is focused on food-borne illness and their origins, and on basic safety procedures followed in the food service industry.

FSS1100
Foodservice purchasing
3.00 credits
This is an introductory course in which students will learn the principals of menu planning for various types of facilities and service as well as menu layout, selection, development and pricing structures. Students will learn the principals and practices concerned with the purchase and receipt of food, supplies and equipment for various food service operations. Prerequisites: FSS 1200, 1202L.

FSS1200
Culinary Terminology and Procedures
3.00 credits
This is an introductory course in industry vocabulary, terminology, knowledge, skills, and practices. The students will learn standard kitchen phrases, how to identify and describe equipment, recipe reading, costing, conversion formulas,

product identification, measurements and basic cooking procedures. Co-requisites: FSS1202L

FSS1202C
Food Production 1
3.00 credits
This course is an introductory kitchen lab experience in which students will be provided hands-on orientation to tools, equipment, recipe production, measurements, knife cut techniques and basic cooking procedures. Students will practice classic cooking methods, product identification and the functions of the production kitchen in a "green" team environment. Corequisite: FSS 1200.

FSS1204C
Food Production 2
3.00 credits
This is a lab course in which students will reinforce the skills that they learned in Production 1.Students will learn cooking methods, knife skills, and applied principles of cooking techniques. The course will emphasize portion control, work plans, and organization and production schedules. This course reviews stock and sauce making, explores modern cooking methods, the use of applicable equipment, and regional and nutritional cooking. Pre-requisites: FSS1200, and FSS1202L

FSS1246C
Basic Baking
3.00 credits
This is an introductory course in which students will learn the fundamentals of baking science, terminology, equipment, ingredients, weights, measures formula conversion and storage. Students will learn the functions of various baking ingredients and execute baking recipes and competencies including doughs, breads, cookies, pies, puff pastries, sweet & savory pastry fillings, quick breads, cakes and basic decorating techniques. Prerequisite FSS 1200, 1202L.

FSS1801
Culinary Sustainability and Practices
3.00 credits
This course will engage students in growing and producing food, processing, distribution, and end user/purchaser aspects of food systems. Students will explore how to reduce the carbon footprint of food service operations and understand the importance of bringing seasonal food to the table at its peak of freshness and height of nutritional value. With hands-on approach and a focus on biodiversity, sustainability, healthy food and animal welfare, students will develop critical thinking to understanding local and global food systems. The course includes on-site visits with farmers, food processors, and experts in our local food system to engage in health and sustainability practices related to food safety, water and waste systems, food marketing, and the heritage food movement. Prerequisite: FSS 2248C

FSS2205C
Food Production 3
3.00 credits
This capstone course will reinforce the skills learned in the prerequisite classes. Students will learn how to brew beer, pair wine and food, and review the distillation process for spirits through hands on experiences as well as practices in dining room management and tableside cooking. Knife skills, stock and sauce making, moist heat cooking methods, dry heat cooking methods and combination cooking methods will be reviewed on an advanced level. The student will review butchery, seafood and modern cooking methods. Prerequisites: FSS1200, andFSS1202L, and FSS1204L, and FSS2242C, and FSS1246C, and FSS2248C

FSS2242C
International Cuisines
3.00 credits
This is an advanced course in which students will reinforce their knowledge of equipment, vocabulary and theories learned in prerequisite classes. Students will learn to use global ingredients, explore international cooking techniques and methods and be exposed to equipment specific to a world region. Students will have the opportunity to develop international menus and prepare dishes from many different countries. Prerequisites: FSS1200, 1202L, 1204L

FSS2248C
Garde Manger
3.00 credits
This is an intermediate course in the preparation of foods from the cold kitchen. Students will learn to prepare sausages, cheese, cured foods, terrines, hors oeuvres and cold soups and sandwiches. Students will also be exposed to carving and buffet layout. Production methods and safe food handling techniques are re-emphasized. Pre-requisites: FSS1200, and FSS1202L, and FSS1204L

FSS2381
Culinary Management Practicum
4.00 credits
This required practicum is designed to provide hands on culinary training through industry work experience. Students will be located in an approved site to reinforce their skills while being exposed to various stations in a food services operation. Students will learn to actively participate in various aspects of the operation including cooking, cost controls, and sanitation programs. Prerequisites: FSS2205L

FSS2940
Culinary Management Externship
4.00 credits
This course is designed to provide advanced hands-on culinary training for culinary students through work experience in an approved commercial food service or hospitality establishment. Students on externship will receive feedback from their supervisor and keep an externship manual to record and reflect on their work experience.

FSS2950L
Culinary Competition
3.00 credits
This advanced course will strengthen the student's ability to utilize various culinary methods learned in prerequisite courses. The student will learn about the American Culinary Federation certification tests,

guidelines and competitions. In addition, students will utilize their skills by participating in on site and recorded demonstrations. The class will reinforce and develop timing, teamwork and menu development. Prerequisites: FSS1200, 1202L, 1204L, 1242C, 1248C.

Foreign Languages (In Translation)

FOT2220
Localization and Project Management
3.00 credits
Software and website localization is a new and growing area of translation and is closely linked to the concepts of globalization and internationalization in electronic communications. In this introductory course students will learn how to adapt software for international markets as well as to how to translate websites. Students will also be introduced to basic concepts in localization project management. Prerequisite: FOT2802, FOT2825.

FOT2701
Simultaneous Conference Interpretation
3.00 credits
This course builds on the foundation established in the previous Simultaneous Interpretation Strategies course. Students will continue developing their simultaneous interpretation skills through exercises such as shadowing, decalage, paraphrasing, etc. Through a variety of authentic recording materials, students will practice the simultaneous interpretation mode in the context of international organizations and conferences so as to acquire smooth delivery techniques while forming professional habits both in conference booths. Extensive practice in simultaneous interpretation will be provided both in class and online. Prerequisite: FOT2824.

FOT2802
Introduction to Translation
3.00 credits
Develops the ability to do accurate written translations in general. Includes the application of contrastive structures and grammar rules of source and target languages; translation of idiomatic expressions and an introduction to legal and technical vocabulary; the use of bilingual dictionaries and glossaries. The demands of translation as a profession and its code of ethics are stressed.

FOT2821
Introduction to Interpretation
3.00 credits
The acquisition and development of skills to sight translate a text from the source to the target language. Training in the conceptualization and analysis of an oral message to transfer its content to another language consecutively. Preparatory exercises for the development of simultaneous interpretation skills.

FOT2822
Court Interpreting Skills
3.00 credits
This course continues with the type of interpreting exercises performed in prior courses (sight, consecutive and simultaneous interpreting) as it specifically applies to the U.S. judicial system. It further provides a specialized vocabulary (terminology) needed to function within this particular setting.

FOT2823
Consecutive Interpretation
3.00 credits
This course builds on the foundation established in Introduction to Interpretation (FOT2810) and acquaints the students with the practice and application of consecutive interpretation (English/Spanish). Development of active listening, concentration and retention skills as well as the ability to perceive essential meaning for subsequent recall is emphasized. This course also explores basic note taking techniques and provides practice in monolateral and bilateral consecutive interpretation. Prerequisite: FOT 2821.

FOT2824
Simultaneous Interpretation Strategies
3.00 credits
This course builds on the foundation established in previous interpretation courses while introducing the students to simultaneous interpretation (English/Spanish) by providing preparatory exercises such as shadowing, lagging, paraphrasing etc. Through a variety of recorded materials, students practice the simultaneous interpretation mode so as to acquire smooth delivery techniques while forming good professional habits. Prerequisites: FOT 2821, 2823.

FOT2825
Computer Assisted Translation 1
3.00 credits
Examines the types of translation software currently used in the translation/interpretation profession as well as the commercial use and business application of these. Description and application of tools such as translation memory, electronic dictionaries, desktop-publishing systems, and website translation technologies are covered. Prerequisite: CGS 1060.

FOT2826
Legal Translation
3.00 credits
This course further develops translation strategies and skills while familiarizing with the characteristics of English and Spanish legal discourse. This includes knowledge of specialized legal terms and related linguistic structures so that students can accurately translate legal documents from English to Spanish and Spanish to English. Terminology research and glossary development through the use of pertinent sources will also be addressed in depth.

FOT2827
Medical Translation
3.00 credits
This course further develops translation strategies while familiarizing the student with the characteristics of medical and health-related discourse in both English and Spanish. Included is the acquisition of medical and hospital/clinic terminology and the analysis of related linguistic structures so students can engage in translating texts from English into foreign language and vice versa. Prerequisites: FOT 2802, 2803.

FOT2828
Medical Interpretation
3.00 credits
This course develops the techniques, practices and knowledge needed to function as interpreters in a medical environment. Interpreting models such as sight, consecutive and simultaneous - as they apply to the medical setting - are revisited. Medical vocabulary/terminology in English and foreign language as well as code of ethics will also be introduced. Prerequisites: FOT 2821, 2823, and FOT 2824(recommended).

FOT2829
Financial and Business Translation
3.00 credits
This course further develops translation strategies while familiarizing the students with the characteristics of financial and business discourse in both English and Spanish. Included is the learning of special terminology and related linguistic structures so students can engage in the translation of texts containing financial/ business or economic discourse from English into Spanish and vice versa. As in legal translation, students engage in terminology research and glossary development through the use of specialized bilingual financial and business dictionaries and other pertinent sources. Prerequisites: FOT 2802, 2803.

French Language and Literature

FRE1120
Elementary French 1
4.00 credits
In this course, students will develop appropriate proficiency in interpersonal, interpretive, and presentational modes at the novice mid-level in French. Note: students must pass this course with a C or better to continue to FRE1121.

FRE1121
Elementary French 2
4.00 credits
In this course, students will develop appropriate proficiency in interpersonal, interpretive, and presentational modes at the novice high level in French. Note: students must pass this course with a C or better to continue to FRE2220. Prerequisite: FRE1120.

FRE2220
Intermediate French 1
4.00 credits
Students will learn to understand, speak, read, write, and gain cultural awareness of French through a systematic review (using an integrated, multimedia approach) of reading grammar, and writing skills with emphasis on oral and written communication. Prerequisite: FRE 1121 or equivalent.

Funeral Services Education

FSE1000
Introduction to Funeral Service
3.00 credits
This course traces the origins of funeral service practice from antiquity to modern day practice. Students will learn the evolution of the funeral profession, the funeral director's role including obligations, fundamental requirements, skills, aptitudes, and qualifications. Requires a grade of C or better to pass the course.

FSE1080
Funeral Law
3.00 credits
The subject area guidelines for Funeral Service Law are designed tointroduce the student to rights, duties, and responsibilities of the funeral service practitioner and funeral establishment; including but not limited to: state and federal laws, regulations andadministrative agency law pertaining to funeral service including preneed; torts involving thedead human body and the funeral service practitioner; wills, estates, probate and related matters;cemeteries, crematories and issues related to final disposition; sources of law; the legal status ofthe dead human body; the right to control funeral arrangements and final disposition and liability for funeral expenses; and the legal aspects of being licensed to practice in funeral service (funeral director, embalmer, etc.).

FSE1105
Funeral Service Chemistry
3.00 credits
A survey of the basic principles of chemistry as they relate to funeral service. Especially stressed are the chemical principles and precautions involved in sanitation, disinfection, public health, and embalming practice. Emphasis is placed on chemical composition of embalming fluids as it relates to arterial, cavity, hypodermic, and surface embalming

FSE2060
Funeral Directing
3.00 credits
The Funeral Directing curriculum focuses on the basic duties, responsibilities, and expectations of those practicing funeral service. This includes notification of death, transfer of remains, conduct of the arrangement conference, prefunded/ preplanned funerals, religious practices, fraternal funerals and military honors, shipment of remains, final disposition, and aftercare. Comprehensive review of funeral merchandise and cemetery options are discussed.

FSE2061
Funeral Service Counseling & Ethics
3.00 credits
This course emphasizes the psychological and sociological dynamics of death, dying, and bereavement and the funeral director's role in counseling families through the process. A clear understanding of the grief process and its variations among individuals as influenced by psychological factors is addressed. Ethical and moral decisions involving end of life and the funeral arrangement process are discussed. The course also addresses the funeral director as a facilitating agent for effective mourning through personal interaction and the design and implementation of the funeral. Prerequisite: ENC 1101, Prerequisite: FSE 1000.

FSE2100
Embalming 1
3.00 credits
Orientation to the preparation room, embalming machines, instruments, and an overview of the entire embalming process. Forms used in the embalming process are introduced in addition to basic embalming skills, case analysis, chemical composition, pre and postmortem changes. Corequisite: FSE2100L.

FSE2100L
Embalming 1 Laboratory
2.00 credits
The goal of this lab is for students to use critical thinking skills to operate independently in a lab setting. Students will learn advanced procedures to enhance their foundational knowledge of embalming techniques as learned in the prerequisite classes FSE2100/FSE2100L. Prerequisites: FSE 2100, FSE 2100L. Co-requisite: FSE2140.

FSE2106
Funeral Service Microbiology
3.00 credits
This course is a survey of the basic principles of microbiology as it relates to Funeral Science. It emphasizes the importance of sanitation, disinfection, and public health in the embalming practice.

FSE2120C
Restorative Art
4.00 credits
The student will learn the anatomical study of human features; familiarization with instruments, human proportions, special materials, and techniques in restoration of human remains. Practical application of techniques found in funeral service reconstructive modeling and restoration. Students receive in-person instruction on campus to practice restorative procedures including the use of wax, cosmetics, and tissue builder. Lab Prerequisite: FSE 2100.

FSE2140
Embalming 2
3.00 credits
This course is a continuation of Embalming I lecture and places emphasis on embalming considerations and procedures for pathogenesis and advanced decomposition. Students will learn to use specialized chemicals, treatment of post-mortem cases and advanced embalming techniques. Corequisite: FSE2140L.

FSE2140L
Embalming 2 Laboratory
2.00 credits
The goal of this lab is for students to use critical thinking skills to operate independently in a lab setting. Students will learn advanced procedures to enhance their foundational knowledge of embalming techniques as learned in the prerequisite classes FSE2100/FSE2100L. Prerequisites: FSE 2100, FSE 2100L. Co-requisite: FSE2140.

FSE2160
Funeral Service Pathology
3.00 credits
General, systemic and forensic pathology with emphasis on analysis of pre-and post-mortem histology, cytology and etiology. Students will learn the causative factors relating to death and determination of cause of death.

FSE2200
Funeral Service Accounting
3.00 credits
An introduction to basic principles of accounting theory. This subject covers financial statements and their analysis, journalizing, receivables, payables, deferrals, and accruals. Inventory costing models depreciation models and payroll accounting are included. Applications to funeral home operations are made throughout the subject material.

FSE2201
Funeral Home Operations
3.00 credits
This class is an overview of cremation practices including but not limited to flame–based cremation and alkaline hydrolysis. Comprehensive review of merchandise and cemetery options are discussed. Corequisite: FSE 2200.

FSE2202
Funeral Home Management
3.00 credits
This course explores the study of the role and function of an effective manager. Emphasis is placed on the management functions of planning, organizing, motivating, directing, and overseeing daily operations. Marketing and networking with the community are also discussed. Forms including Veterans and Social Security benefits along with other funeral service-related tasks are reviewed.

FSE2203C
Funeral Home Applications
4.00 credits
Funeral Home Applications class reinforces the academic and theory of prior classes with hands on practical exercises. Students will learn procedures for taking the first call, removal, buying and selling merchandise, funeral arranging, conducting the funerals, and finalizing contracts. Must complete this course with a grade of "C" or better. Prerequisite: FSE2060, FSE2201.

FSE2930L
Funeral Service Professional Review
2.00 credits
This course is offered for the Funeral Service Education student who is in their final semester of study. The course is a comprehensive review of the assessed material on the National Board Exam to help prepare the student for the examination and professional licensure. A grade of "C" or better is required to successfully complete the class.Pre/Corequisite: FSE1000, FSE1080, FSE2060, FSE2061, FSE2100, FSE2106, FSE2120C, FSE2140, FSE2201, FSE 2202, FSE2203, FSE2160.

FSE2932
Funeral Science Professional Review 2
1.00 credits
This course is for the funeral Science student who is graduating and taking the National Board Examination at the end of the semester that this course is being offered. The course is a review of the Arts section of the Funeral Science courses in order to help prepare the student for the National Board Examination. Prerequisite: Permission of the department is required.

General Business

GEB1000
Business Career Strategies
3.00 credits
This course is designed to enable students to thrive in a competitive business environment. Students will learn business etiquette, alternative career pathways, personal financial management, and budgets. Additionally, students will learn interviewing, networking, and career development skills.

GEB1011
Principles of Business
3.00 credits
The student will learn the major disciplines of business including general business, business ethnics, forms of business ownership, economics, management and leadership, human relations marketing, information systems, accounting, financial management, money and banking, and business law.

GEB1432
Applied Artificial Intelligence (AI) in Business
3.00 credits
This course illustrates how Artificial Intelligence (AI) is currently applied in industries and across business functions to support business strategy formulation, implementation and evaluation. This course introduces the data-driven outcomes and ethical issues to be considered when implementing responsible AI in business and industry.

GEB1949
General Business Internship 1
3.00 credits
This internship provides students with an opportunity to gain business experience while receiving academic credit. Students will learn to make connections between their internship experiences, academic coursework, and career goals. Students are required to complete 144 hours of internship in an organizational setting.

GEB2100
Introduction to Business Analytics
3.00 credits
This course is for students majoring in business, marketing, business intelligence, computer science and other majors and introduces how information and technology are used in organizations to create market advantage. Students will learn about the operational units of an organization and the information requirements to support the organization.

GEB2112
Introduction to Entrepreneurship
3.00 credits
Students will learn that start-ups are not smaller versions of big businesses. They are unique. This foundation course in business entrepreneurship covers the attributes of successful entrepreneurs, opportunity identification, opportunity analysis and development, as well as an overview of the key activities and functions which start-ups must address.

GEB2350
Introduction to International Business
3.00 credits
Provides an overview of the cultural environment of international business and the institution which affects business today. International economic, political, and trade issues are analyzed in the context of socio-economic goals and policies of the nations involved.

GEB2949
General Business Internship 2
3.00 credits
This internship is a continuation of GEB 1949 and provides students with an opportunity to gain business experience while receiving academic credit. Students will learn to make connections between their internship experiences, academic coursework, and career goals. Students are required to complete 144 hours of internship in an organizational setting. Prerequisite: GEB1949.

GEB3213
Advanced Communication in Business
3.00 credits
Student will develop effective and efficient oral and written communications skills that can be applied in professional business settings. Topics include formal and informal writing, preparation of reports, creation of business proposal, written correspondence, and presentations.

GEB3358
International Negotiations and Transactions
3.00 credits
This course presents business negotiations in selected regions of the world. Students will learn the skills of negotiation by analyzing international business cases and developing solutions to situations. Topics include overseas market research using both domestic and international

sources and the application of theoretical and practical business knowledge to foreign situations and trade negotiations. The importance of culture, language, and values in international negotiations is emphasized. Prerequisites: MAN 2021 and TRA 1154.

GEB4363
Import Export Management
3.00 credits
Students will learn the functions and range of traffic management services performed by freight forwarders, including changes in governmental restrictions, rules, and regulations applicable to different countries, ports, and trade routes. Students will also learn the documentation needed to facilitate and coordinate the movement of goods in international trade and supply chain management systems. Prerequisites: MAN 2021 and TRA 2010.

GEB3522
Applied Business Analytics
3.00 credits
This upper division course is for students majoring in Data Analytics. Students will learn how to design and develop business analytic solutions to real-world problems using case studies. Students will gain experience working in small teams in deadline-driven environments and will present their results in class. Prerequisite: GEB2100.

Geographic Information System

GIS1040
Introduction to GIS Technology
4.00 credits
This course is introductory and first in a sequence of Geographic Information Systems (GIS) courses that make up the new CCC in Geographic Information Systems Technology. The course is also being added as a new elective option for the AS in Information Systems Technology.

GIS2045
Intermediate GIS Technology
4.00 credits
This course teaches intermediate-level concepts of Geographic Information Systems (GIS). The student will acquire an understanding of discrete geocoding and georeferencing, data input, working with spatial databases, and data creation. At the end of the course, the student will be able to perform intermediate-level operations in GIS software. Prerequisite: GIS 1040.

GIS2046
Advanced GIS Technology
4.00 credits
This course teaches advanced concepts of Geographic Information Systems (GIS). The student will learn how to use vector, raster and 3D data, geospatial structures, and write GIS functions using a programming language. At the end of the course, the student will be able to perform advanced operations in GIS software. Prerequisite: GIS 2045.

GIS2047
Applications of GIS Technology
4.00 credits
This course teaches the principles of urban analytics and disaster management through what-if scenario modeling in which risks are evaluated and managed in order to support better decision making. By the end of the course, the student will apply a remote sensing technique to generate GIS data. Prerequisite: GIS 2045.

Geology

ESC1000
General Education Earth Science
3.00 credits
Using the scientific method, critical thinking skills, data analysis, this course will examine the fundamental processes of the earth system, composed of an atmosphere, hydrosphere, lithosphere, biosphere, and exosphere, through time. The course will also explore interactions between these spheres, including critical analysis of scientific theories and emphasize earth's connections with humans. Student learning outcomes: students will use critical thinking to recognize the rigorous standards of scientific theories; students will analyze and synthesize earth science data to draw scientifically valid conclusions; students will recognize the different time scales associated with different earth processes; students will effectively describe interactions between humans and the earth's spheres; and students will apply their understanding of earth science principles to complex global and local issues.

GLY1010
Physical Geology
3.00 credits
Using the scientific method, critical thinking skills, data analysis, this course will examine the fundamental processes of the earth system, composed of an atmosphere, hydrosphere, cryosphere, lithosphere, biosphere, and exosphere through time. The course will also explore interactions between these spheres, including critical analysis of scientific theories and emphasize lithospheric connections with humanity. Student learning outcomes: students will use critical thinking to recognize the rigorous standards of scientific theories; students will analyze and synthesize geoscience data to draw scientifically valid conclusions; students will recognize the different time scales associated with different geologic processes; students will describe interactions between humans and earth's spheres; and students will apply their understanding of geologic principles to complex issues.

GLY1100
Historical Geology
3.00 credits
This is a historical based course in geology. The student will learn about the history of the earth, the evolution of life, radiometric dating, and the history of modern geologic ideas on earth development.

German Language

GER1120
Elementary German 1
4.00 credits
In this course, students will develop appropriate proficiency in interpersonal, interpretive, and presentational modes at the novice mid-level in German. Note: students must pass this course with a C or better to continue to GER1121.

GER1121
Elementary German 2
4.00 credits
In this course, students will develop appropriate proficiency in interpersonal, interpretive, and presentational modes at the novice high level in German. Note: students must pass this course with a C or higher. Prerequisite: GER1120.

Graphic Arts

GRA1111C
Graphic Design Fundamentals
4.00 credits
The basics of graphic design comprise this introductory course. The student will analyze the principles and practices of graphic design, and evaluate their creative solutions to challenging design problems. Topics include design vocabulary, elements and principles, the design process, proportion and composition, creativity and visualization, as well as color and typography basics. Assignments are designed to emulate real-world projects, including brainstorming, design, execution, critique, revision and implementation.

GRA1113C
Visual Identity & Branding Design
4.00 credits
Studio projects involving visual identity and branding design will comprise this intermediate course. The student will examine color theory, branding, and best practices to develop unique and impactful brands, including sustainability and brand value. The student will design logos and style manuals. Trademarks and copyrights will be examined. Prerequisites: GRA1111C, GRA1206C, GRA2117C.

GRA1206C
Typography Fundamentals
4.00 credits
The student will design with type in this introductory course. The student will examine readability vs. legibility, the history of type, type anatomy and how to classify type into groups. The student will examine typographic layout design and how the principals of design apply. Studio projects will introduce the student to expressiveness through typographic creativity, symbolism and abstraction to express a given topic or design solution.

GRA1280C
Digital Imaging Fundamentals
4.00 credits
The student will learn leading industry-standard image editing software is used to prepare photos for print and digital media in this introductory course. Topics include: resolutions, compositing, masking, correcting and enhancing, as well as applying styles and effects. Assignments are designed to emulate real-world projects, including composite images for graphic design, photographic editing, and web pages.

GRA1750
Web Design Fundamentals
3.00 credits
The basics of web design comprise this introductory course. An introduction to the history of the web, including current design trends, a survey of Internet architecture, as well as user experience fundamentals and usability will comprise this introductory-level course. The student will examine the structure and styling of web pages.

GRA1751
Fixed-Layout Web Design
4.00 credits
The student will design fixed-width layout web pages in this intermediate-level course. The student will apply knowledge and skills to the design and construction of single web pages and multi-page web sites using a visual editor. Topics include styling, linking, incorporating media, production workflows, and the creation of web forms. Assignments emulate real-world projects, including ideation, design, creation, and revision, leading to portfolio-ready projects. Prerequisites: GRA1750.

GRA1752
Motion Graphics For Web Design
4.00 credits
This intermediate-level course examines web vector graphics and their ability to display illustrations and animations on a web page. An in-depth examination of web vector graphics which when combined with transitions and transformations, enables web designers to create dynamic online images and animations that are compatible across desktop and mobile web browsers. The student will create portfolio-ready web projects and animations. Prerequisites: GRA1750, GRA2117C.

GRA1753
Motion Design 1
4.00 credits
Best design practices and the twelve principles of animation are taught in this introductory course. The student will explore hand-drawn techniques and software tools used to create professional Motion Design projects in 2-D and 3-D environments. At the end of this course, a 15 second animated product advertisement will be produced. The student will demonstrate knowledge of outputting files formatted correctly for film, television and web application environments. Prerequisite: GRA1280C; Pre/Corequisite: GRA2117C

GRA1754
Responsive Web Design
4.00 credits
The student will design fluid-layout and responsive pages in this intermediate-level course. Responsive web pages adapt to various devices and user preferences, and examines the advantages of responsive design, as well as the latest industry research reporting on statistics for

mobile device use globally. Topics include: fluid grids, responsive typography and images, CSS media queries, "mobile first" workflows, usability, tools and resources. Prerequisite: GRA1751.

GRA1949
Co-op Work Experience 1: GRA
3.00 credits
This is a course designed to provide training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-Op Department approval. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval.

GRA2117C
Digital Illustration Fundamentals
4.00 credits
The student will create illustrations using industry-standard vector-based illustration software. Topics include creating vector-based illustrations, leading to an illustration portfolio. Emphasis will be on both representational as well as commercial art styles. Assignments are designed to emulate real-world projects, including illustration, design, and typography. Prerequisites: none.

GRA2121C
Publication Design
4.00 credits
Studio projects focusing on periodical and catalog designs comprise this intermediate-level course. The student will apply knowledge and skills toward the design and creation of newsletters, magazines, catalogs, booklets, press media kits and interactive e-books. Emphasis will be on graphic design principles, composition, layout, pagination, style balance format and project planning. Prerequisites: GRA1111C, GRA1206C, GRA2117C. Pre/co-requisite: GRA1280C.

GRA2151C
Advanced Digital Illustration and Imaging
4.00 credits
This is an advanced course in digital illustration and imaging, building on existing skills to design and create portfolio-ready projects. Topics include: perspective illustration, advanced masking and compositing techniques, "comping" for layout presentations, outdoor advertisements or 3-D package designs. The student will explore optimizing graphics for web, animations and video. Prerequisites: GRA1280C and GRA2117C.

GRA2156C
User Interface and Experience Design
4.00 credits
In this intermediate-level course, the student will examine the design and creation of mobile applications. The student will create visual designs for mobile apps, as well as analyze how to build and distribute them. The student will apply skills and knowledge toward creating portfolio-ready design projects. Prerequisites: GRA1751, GRA1754.

GRA2162C
Motion Design 2
4.00 credits
The student will master the leading motion design software's interface and tools to create animated advertisements, broadcast graphics and title sequences in this intermediate-level course. This course presents the fundamentals of good design and creatively applying those basic principles to produce a 30 second animated piece. Projects include knowledge of outputting and formatting final files for Film, TV and Web application environments for client delivery. Prerequisite: GRA1753

GRA2190C
Communications Design 1
3.00 - 4.00 credits
Problems in advertising design involving layout, lettering, current studio media, and reproduction processes. Prerequisites: ART 1202C or 1300C.

GRA2191C
Communications Design 2
3.00 - 4.00 credits
Advanced problems in commercial art concentrating on layout, mechanical art for reproduction and illustration technique. Prerequisite: GRA 2190C.

GRA2203C
Portfolio and Business Practices for Designers
3.00 credits
This advanced course enables students to create a portfolio for self-promotion to prospective employers and clients. The student will revise and assemble projects accomplished throughout their career tracks. The student will also analyze best practices involved in the profession: pricing freelance assignments, contracts, intellectual property rights, and other professional requirements. Course is taken in the semester prior to graduation. Prerequisites: GRA2121C and GRA2151C.

GRA2207C
Capstone Project
4.00 credits
The student will apply cumulative knowledge and integrative skills to the design and creation of a professional-level project. The graphic/web design assignment shall meet the requirements specified in a case study or real-world project. Course is taken in the semester prior to graduation. Prerequisites: GRA2151C.

GRA2305C
Special Topics in Graphic Design
3.00 credits
An advanced course featuring in-depth focus on special topics of the professor's choice within the field of graphic design. Topics include but are not limited to graphic novel design and illustration, informational graphics, as well as sustainability and social responsibility. The student will develop a detailed analysis of concepts presented and the creation of portfolio-ready projects. Prerequisite: GRA2151C.

GRA2545C
Package Design
4.00 credits
The student will create package designs for use in retail sales, merchandising, and point-of-purchase in this introductory-level course. Assignments are designed to emulate real-world projects, including package construction, design, illustration and typography, leading to portfolio-ready projects. Prerequisites: GRA2151C.

GRA2546C
Advertising Design
4.00 credits
The student will design and create effective advertising campaign concepts for print, outdoor and digital media in this intermediate-level course. Studio projects will emphasize originality, brainstorming, ad layouts, creative copywriting and persuasion, culminating in portfolio-ready projects. Prerequisites: GRA1113C, GRA2151C.

GRA2727
Dynamic Web Design
4.00 credits
The student will design and create dynamic web pages. This course presents PHP programming language to enable students to reduce website maintenance, change content depending on date and time, collect user input from an online form, and link to a MySQL database to display product information. Studio projects culminate in portfolio-ready artifacts. Prerequisites: GRA1754 and GRA2156C.

GRA2755
Emerging Technologies For Multimedia Web Design
3.00 credits
An examination of emerging web technologies encompasses this course. Topics may include (but are not limited to): content management systems, new visual editing applications, and the latest trends in web design. Studio projects culminate in portfolio-ready artifacts. Course is taken in the semester prior to graduation. Prerequisite: GRA2727.

GRA2949
Co-op Work Experience 2: GRA
3.00 credits
This is a course designed to continue training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-Op Department approval and completion of 1949 Co-Op Work Experience. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-Operative Education Office to obtain registration approval.

GRA2991C
Selected Studies
4.00 credits
This course is an introduction to the fundamentals of computer based 3D modeling for Film, TV, and Video Gaming applications. Prerequisites: ART 2600C; GRA 2575C; VIC 1202.

Health Information Management

HIM1000
Introduction to Health Information Technology
2.00 credits
This course examines the role and functions of a health information technician. Students will learn about the structure, organization, and maintenance of the medical record. Students will also learn about the organization and function of various types of health care facilities, the responsibilities of national, state and local health agencies, and the organization and mission of the American Health Information Management Association.

HIM1110
Health Information Technology and Data Collection
2.00 credits
This course is designed to provide the skills necessary to function in a health information management department. Students will learn health record data collection and informatics. Students will also learn about the various components and approaches of the electronic health record. Prerequisite: HIM 1000, 2472; corequisite: HIM 1110L.

HIM1110L
Health Information Management Data Collection lab
3.00 credits
This course is designed to apply basic requirements imposed by regulatory agencies to health record data. Students will learn how clinical data repositories store health information. Concepts relating to confidentiality, ethics, and release of information will be applied. Prerequisite: HIM 1000, 2472; corequisite HIM 1110.

HIM1300
Health Care Facility and Delivery Systems
2.00 credits
This course will examine healthcare complexities, function of various types of health facilities, accreditation standards, Medicare law, and the American health delivery system. Students will learn the components of Medicare, Medicaid, Health Insurance Organizations (HMO's), and the federal laws that govern them.

HIM1800
Professional Practice Experience 1
2.00 credits
This course will provide the student with a supervised professional practice experience in a healthcare setting, utilizing electronic health records and reports to manage health information data. Students will learn an in-depth knowledge of applying the minimum basic requirements for handling records imposed by regulatory agencies. Prerequisite: HIM 1000; corequisite: HIM 1110, 1000L.

HIM2012
Legal Aspects of Health Care
2.00 credits
This course provides basic knowledge of the United States of America court system and the interconnection between the health care system and the

federal government. The student will learn concepts relating to Health Insurance Portability Accountability Act (HIPAA, ethics, release of health information, record retention, and the legalities of electronic health records. Prerequisite: ENC 1101.

HIM2211C
Health Information Technologies
2.00 credits
This course is designed to examine computer technology used to collect and store health information. The student will learn a variety of applications used to maintain and secure health care data. Prerequisites: HIM 1110, 1110L, and 1800.

HIM2214C
Health Statistics
2.00 credits
This course will focus on the definitions for analysis, interpretation, and display of healthcare data. The student will learn the acceptable terminology and basic definitions for reporting health statistics. Emphasis is placed on the use of the formulas necessary for computing standard rates, percentages, and averages from patient data. Prerequisites: HIM 1110, 1110L; corequisite: HIM 2512C.

HIM2222
ICD Coding Systems
2.00 credits
This course is designed to teach the current edition of International Classification of Diseases and Procedures codes. Students will learn code convention and format, usage of anatomy, physiology, and clinical disease processes. Pharmacology, present on admission indicators, correct code assignment and sequencing will be discussed. Prerequisites: BSC 2085, 2085L and HIM 2472; corequisite: HIM 2222L.

HIM2222L
ICD Coding Systems Laboratory
3.00 credits
This course is designed to apply diagnoses and operations into numerical designations (codes) utilizing the International Classification of Diseases and Procedures. Students will learn correct sequencing, analysis of clinical disease processes, diagnosis and procedural terminology, and application of pharmacology in current coding systems. Encoding software is utilized. Prerequisites: BSC 2085, 2085L, and HIM 2472; corequisite: HIM 2222.

HIM2234
Advanced Coding & Reimbursement Systems
2.00 credits
This course is designed to apply the fundamentals of the Prospective Payment Systems as it applies to coding and reimbursement. The student will learn documentation criteria, validation reports of coded data, health record for compliance, and optimum reimbursement under current payment methodologies. Prerequisite: HIM 2222, 2222L; corequisite: HIM2234L.

HIM2234L
Advanced Coding & Reimbursement Systems Laboratory
1.00 credits
This course is designed to apply and compute Prospective Payment Systems categories. Students will learn to apply health record documentation to identify and validate correct code and payment assignments. Focus is on computation of MS-DRGs, APCs and Case-Mix Index using encoderm, grouper, and electronic billing software for reimbursement. Prerequisites: HIM 2222, 2222L; corequisite: HIM 2234.

HIM2253C
Current Procedural Terminology/ CPT-4
2.00 credits
This course provides an in-depth knowledge of coding and reporting using Current Procedural Terminology classification. Students will learn to read and interpret ambulatory health record documentation to classify and assign services and procures codes and use of encoder and grouper software. HCPCS, APCs, and RBRVS will be discussed. Prerequisites: BSC 2085, 2085L and HIM 2472.

HIM2400C
Diversified Non-Hospital Health Records
2.00 credits
This course emphasizes the importance of quality record-keeping practices, data flow, and management of health information systems in a non-acute care setting. The student will learn the documentation requirements based on Federal and State statutes, accreditation standards, Medicare Conditions of Participation, payment systems, funding, Health Insurance Portability Accountability Act, and the evolution of the electronic health record.

HIM2433
Pathophysiology and Pharmacology
3.00 credits
This course provides an in-depth knowledge of disease, its etiology, medical complications, and pathophysiologic nature. Students will learn laboratory and other diagnostic tests used to confirm or rule out those diagnoses addressed. Current pharmacological treatments are explored with review and interpretation of health record data. Prerequisites: BSC 2085, 2085L, HIM 2472.

HIM2472
Medical Terminology
3.00 credits
Analysis of medical terms through learning basic roots, prefixes and suffixes permitting the student to have a working knowledge of the language of medicine. Prerequisite: Permission of department chairperson.

HIM2500
Data Management & Quality Assessment
2.00 credits
The basic principles of quality assessment: quality improvement and utilization review. The accreditation process, risk management, managed care models, and the methodologies and relationships of these key areas within a health care facility are emphasized. Prerequisites: HIM 1110, 1110L; Corequisite: HIM 2500L.

HIM2500L
Data Management & Quality Assessment Laboratory
1.00 credits
The application of the basic principles of quality assessment: quality improvement and utilization review. The student will learn to generate models for the evaluation of different types of medical care. Activities will center on the accreditation process, managed care, and risk management. The methodologies and relationships of these key areas within a health care facility are emphasized. Prerequisites: HIM 1110, 1110L; corequisite: HIM 2500.

HIM2512C
Supervision & Organization for Health Information Management
2.00 credits
This course will review the basic principles of management and organizational life in a health information management department and the interrelationships within the health care organization. Emphasis will be placed on the supervisory role of the health information professional, including basic motivation and communication principles essential to the practice of health information management. The student will identify and use specific motivational and communication techniques in health information supervision. Prerequisites: HIM 1110, 1110L; corequisites: HIM2500, 2500L, 2810.

HIM2652C
Electronic Health Record
3.00 credits
This course reviews the current trends and preparation implementing the electronic health record and reviews documentation requirements for a variety of healthcare settings. Students will learn best practices, problem-solve associated issues, and directly participate in the transitions of electronic health records. Prerequisite: HIM 2211C.

HIM2813
Professional Practice Experience
2.00 credits
This course is an advanced coding/billing professional practice. Students will learn advanced coding and abstracting of actual inpatient and outpatient health records, with an emphasis on compliance and improving accuracy and productivity.

HIM2820
Seminar and Professional Practice Experience 3
2.00 credits
This course is designed to provide students with structured learning experiences necessary for them to enter the health information management field. Students will learn preparation skills for the national examination by analyzing major examination topics offered in curriculum. A professional practice experience will be a component of this course. Prerequisite: HIM 2810; corequisites: HIM 2500, 2500L.

HIM9995
Health Information Technology
26.00 credits
This course is a placeholder awarding equivalent college credit for non-collegiate training based on Technical Manual of Procedure Number 1100: 816125. This course requires special permission and students must contact the department chairperson for registration/approval.

Health Science

HSA1102
Current Issues in Health
3.00 credits
This course covers current issues within the health care system. Emphasis focuses on varied areas of health care and is appropriate for persons directly or indirectly involved in the provision of health care or health education.

HSA1380
Health Care Quality Management
3.00 credits
This course examines various efforts being introduced to improve the quality and efficiency of the health care system. Topics covered range from issues of medical error reduction, quality improvements in medical records, and utilization review, models for continuous quality improvement in physician-patient relations.

HSA2001
Interprofessional Team Based Health Care
2.00 credits
This course is an introduction to interprofessional health care delivery. Reviewed are concepts of interprofessional collaboration practices in relation to team formation, ethical consideration with team management, effective communication approaches, and patient care processes.

HSA2181
Health Services Management Concepts
3.00 credits
This course provides preparation and fundamental skills required to enter the field of medical office management.Emphasis will be placed on health care delivery in a medical office setting. Topics include an introduction to health care management information systems, an introduction to essential policies and regulations, and an introduction to evaluation of performance and process outcomes.

HSA2532
Medical Documentation in Health Care
1.00 credit
Medical Documentation in Health Care will introduce the student to documentation in the written patient chart or electronic medical record.Through case discussions and in-class writing assignments, the student will acquire the necessary skills to document in the patient's medical record utilizing medico-legal principles and evalu-ation and management criteria. Patient

confidentiality, billing, and coding will also be discussed. Prerequisite: PAS 1800C, PAS 1803, PAS 1831, PAS 2936.

HSA3533
Medical Documentation in Health Care II
1.00 credit
Medical Documentation in Health Care II is a continuation of HSA 2532. This course will teach the student to documentation in the written patient chart or electronic medical record for special populations. Through case discussions and in-class writing assignments, the student will acquire the necessary skills to document in the patient's medical record utilizing medico-legal principles and evaluation and management criteria. Patient confidentiality, billing, and coding will also be discussed.Prerequisite: HSA 2532, PAS 1801C, 1811C, 1812, 1813, 1822L, 1823

HSC1149
General Pharmacology for Health Care Professions
3.00 credits
This course will provide learners with a basic introduction to pharmacology concepts and principles associated with management of common diseases and treatment options. It presents information on major drug classifications, indications for use of common medications, and potential contraindications adversely affecting medical care outcomes.

HSC2060
Artificial Intelligence Applications in Healthcare
3.00 credits
An introduction to the health care environment and delivery systems. In this course, students will explore how Artificial Intelligence (AI) is impacting healthcare professions. Students will gain a fundamental understanding of ethical implications, legal principles, and applications of AI in various health settings.

HSC2400
Basic Emergency Care
3.00 credits
Designed to provide opportunities to develop, practice, and display skills concerning emergency care and the prevention of accidents. This course meets the American Heart Association Healthcare Provider Cardiopulmonary Resuscitation/ automated External Defibrillation and the American Red Cross for Standard First Aid Certification requirement.

HSC2810
Professional Practice Experience
4.00 credits
This course provides an opportunity for the student to observe basic principles and techniques of managers in a health care setting. Students apply knowledge from previous health service management courses in completing course assignments. This course has a service learning component at an area health care agency.

HSC3057
Introduction to Research Methods in Health Care
3.00 credits
This course will provide an overview of research methods used in healthcare. Students will learn the use of effective inquiry through research strategies that address healthcare issues with logical and observational rigor. Students will learn the rudiments relative to the evaluation of research literature, research design and the application of research methods to the clinical setting.

HSC3202
Introduction to Public Health
1.00 credit
This course is designed to give students a foundation in the core functions of population-based health consisting of assessment, policy development and assurance. Students will gain an understanding of public health as a broad field which applies the benefits of current biomedical, environmental, and behavioral knowledge in ways that maximize the health status of all populations. This course is blended. Prerequisite: HSA 2532, PAS 1801C, 1811C, 1812,1813, 1822L, 1823.

HSC3655
Theoretical Foundations of Health Care Ethics
3.00 credits
This course will cover the Theoretical Foundations of Health Care Ethics. The student will learn how to apply the core principles of bioethics to the medical and health care decision-making process.

HSC3701
Leadership and Management in Healthcare
3.00 credits
This is a leadership and management course that will examine leadership as a process with a tri-fold focus: the leader, the followers, and the situation. The student will learn leadership theories and build leadership skills.

HSC4942
Community Service Learning Practicum
3.00 credits
This course is designed to engage students in meaningful healthcare related community service learning activities. Students will learn to explore new collaborations in service-learning, cultural diversity and community healthcare development. These experiences will help to and prepare them for lives as civically-engaged local, national, and global citizens. Pre-Req: PAS 3019, 3042C, 3070, 3140, 3203C

History

AMH2010
History of the US to 1877
3.00 credits
In this course, students will examine United States history from before European contact to 1877. Topics will include but are not limited to indigenous peoples, the European background, the colonial period, the American Revolution, the Articles of Confederation, the Constitution, issues

within the new republic, sectionalism, manifest destiny, slavery, the American Civil War, and Reconstruction. Student learning outcomes: students will describe the factual details of the substantive historical episodes under study; students will identify and analyze foundational developments that shaped American history from before European contact to 1877 using critical thinking skills; students will demonstrate an understanding of the primary ideas; values, and perceptions that have shaped United States history; and students will demonstrate competency in civic literacy.

AMH2020
History of the US since 1877
3.00 credits
In this course, students will trace the history of the United States from the end of the Reconstruction Era to the contemporary era. Topics will include but are not limited to the rise of industrialization, the United States' emergence as an actor on the world stage, Constitutional amendments and their impact, the Progressive Era, World War I, the Great Depression and New Deal, World War II, the Civil Rights Era, the Cold War, and the United States since 1989. Student learning outcomes: students will describe the factual details of the substantive historical episodes under study; students will identify and analyze foundational developments that shaped American history since 1877 using critical thinking skills; students will demonstrate an understanding of the primary ideas, values, and perceptions that have shaped American history; and students will demonstrate competency in civic literacy.

AMH2035
Recent American History Since 1945
3.00 credits
The internal development of the United States and the role of the U.S. in world affairs since World War II.

AMH2079
History of South Florida
3.00 credits
A study of the history of South Florida (Lake Okeechobee south to Key West) including geological foundations exploration, settlement and contemporary cultural trends.

AMH2090
History of Women in the United States
3.00 credits
This course will explore the history of women from precolonial times to the present, by examining how gender roles, class, and ethnicity defined women's experiences in the social, political, and economic contexts. It will also analyze how women shaped and contributed to historical events and movements within the United States.

AMH2091
Afro-American History
3.00 credits
A survey, including the African background, of the Afro-American in the United States history, with emphasis on their economic, political and cultural development.

EUH2032
History of the Holocaust
3.00 credits
This is a foundation course in Holocaust Studies. Students will learn the historical origins, execution and consequences of the Holocaust. This course also examines the Holocaust's place in context of genocides past and present.

LAH2021
Colonial Latin America
3.00 credits
This course covers the history of Latin America, from the pre-Columbian civilizations of the region, to the Wars of Independence. Students will learn about the development of the political, social, economic and cultural structures of colonial Latin America to 1825.

LAH2025
History of Cuba
3.00 credits
Historical analysis of the development of Cuban society, its culture and institutions.

WOH2003
History of Genocide
3.00 credits
This course is designed to explore the history, causes, and consequences of genocide through identification of the patterns of intentional mass killings. Students will learn via case studies the characteristics of past and current incidents characterized as genocide.

WOH2012
History of World Civilization to 1789
3.00 credits
This course covers the history of World Civilizations from the prehistoric period to the 18th century. Students will learn the major political, social, economic, and cultural structures of civilizations and their development through 1789.

WOH2022
History of World Civilization from 1789
3.00 credits
The student will examine the historical development of world civilizations since 1789. Students will learn of historical processes and developments in social, cultural, political, and economic contexts since the 18th century.

Hospitality Management

HFB2990
CBE Food and Beverage Specialist
1.00 – 12.00 credits
The Competency-Based Education course HFB 2990 - Food and Beverage specialist course is designed to assess learner mastery of the competencies and skills necessary for a successful career in the food and beverage industry. The competency-based approach allows learner the flexibility to self-direct their learning

experience. As a result, the learning is much more individualized and can be significantly accelerated. Learners enrolled HFB 2990 CBE Food and Beverage also will have the opportunity to achieve industry-recognized academic credentials, and will be prepared for positions such as restaurant server, room service attendant or banquet set-up staff.

HFT1000
Introduction to Hospitality
3.00 credits
In this introductory course the student will learn a basic understanding of the lodging, travel, meeting planning, club management, food and beverage, gaming and cruise industry by tracing the industry's growth and development, reviewing the organization of hospitality operations, and by focusing on industry opportunities and future trends. Career opportunities, interview and resume writing skills are discussed.

HFT1210
Human Resources
3.00 credits
Provides information relating to the recruitment and selection of new staff, the handling of difficult employees, motivating employees and conducting performance evaluations.

HFT1212
Safety and Sanitation
3.00 credits
Students will learn industry standards on sanitation as it relates to food preparation and kitchen operations. Students will recognize proper sanitation techniques and explain how to implement sanitation programs in food service operations.

HFT1220
Supervisory Development
3.00 credits
This introductory course will assist students in learning basic supervisory skills. The students will learn how to conduct proper employee evaluations, as well as how to apply discipline. Effective communication techniques, use of delegation and diversity in the workforce are discussed. Issues concerning employee relations and current topics in management are addressed.

HFT1300
Executive Housekeeping
3.00 credits
In this introductory course the student will learn the fundamentals of housekeeping management. This course describes the management functions, tools and practices required in today's lodging and institutional housekeeping departments. Special attention to environmental, and safety implementations. Design and architectural elements and their relation to housekeeping will be discussed.

HFT1841
Dining Room Service
3.00 credits
Provides students with the opportunity to acquire knowledge of advanced service techniques, including guest satisfaction, food, wine and beverage serving, types of menus, table service techniques, tableside cooking, napkin folding, table setting, safety, sanitation, emergency procedures, restaurant technology, and service styles. Students will gain experience in cash and non-cash handling, forecasting sales, and merchandising techniques. Corequisite: HFT 1000.

HFT1852
Menu and Facilities Planning
3.00 credits
This course is a study of the factors involved in planning effective menus for a variety of food service operations. Students will learn to develop a firm working knowledge of menu-writing techniques and participate in actual menu design and facilities layout of a food service establishment. Pre-requisites: HFT1000

HFT2223
Training Skills and Development
3.00 credits
In this intermediary course the student will learn effective training processes. The course considers the assessment and analysis of training needs, the systematic design of instruction, the evaluation of training programs, and management of the training programs, and functions. The student will have the necessary skills in order to develop and conduct training sessions.

HFT2241
Leadership and Quality Assurance Management
3.00 credits
Provides an analysis of management issues related to the "personal touch" in customer service and quality assurance in the hospitality industry. Emphasis is placed on the importance of contemporary management and business practices to keep up with the demands of an ever-changing industry.

HFT2261
Restaurant Management
3.00 credits
Familiarizes students with the general principles of food production management, work scheduling, and preparation supervision. Emphasis is placed on purchasing and financing, planning and equipping a kitchen, pricing and menu design, and marketing and promoting restaurants. Prerequisite: HFT 1000.

HFT2410
Front Office Procedures and Lodging Operations
4.00 credits
In this intermediary course the student will learn about various positions in the rooms division. Focus in hotel front office procedures involved in reservations, registering and checking out guests. Guest services, revenue management, accounting procedures and the operation of a PMS (Property Management System) are discussed. Special attention to hotel operations including security, housekeeping and engineering.

HFT2421
Managerial Accounting for Hospitality
3.00 credits
Presents managerial accounting concepts and explains how they apply to specific operations within the hospitality industry.

HFT2449
E-Business for the Hospitality Industry
3.00 credits
Prepares student to manage information systems within their organizations. Emphasis is on selecting the right computer systems technology and maximizing available technology in order to promote and sell services. Introduces the use of automation in the broad hospitality sector and exams technological applications ranging from distribution systems (GDS, CRS and Web based), Property Management Systems, and EPOS systems to developments in telecommunications, and assesses their effect on the tourism sector. While a broad interpretation of both technology and tourism will be used, particular emphasis will be placed on the hospitality sector (i.e. Hotels and catering) and on distribution technology. A combination of lecture, case studies, seminars, visiting lecture and lab sessions are used. Prerequisite: HFT 1000.

HFT2500
Marketing of Hospitality Services
3.00 credits
In this intermediary course the students will learn basic knowledge and practical experience which will enable them to develop strategic marketing plans for any hospitality business. Special focus on the marketing mix as it applies to hospitality. Marketing trends and case studies are discussed.

HFT2501
Hospitality Sales
3.00 credits
In this intermediary course the student will learn sales presentation skills and the importance of sales in an organization. Topics discussed are the organization of the sales department including the responsibilities of all involved in the sales process. Emphasis on sales presentations, looking for leads, negotiating skills, building rapport, and closing the sale. Role playing and other activities will be used to enhance learning.

HFT2750
Event and Meeting Management
3.00 credits
In this intermediary course the student will learn the complete set of skills necessary to adequately perform as an event planner, hotel banquet manager and convention and meeting planner. Actual events will be used to reinforce the general rules of table service, booking functions, staffing banquets/conventions, and responsibilities of a host venue as they apply to buffets and banquets. Prepares students in trade show administration, meeting management, and legal issues associated with banquets and conventions.

HFT2772
Introduction to Cruise Line Industry
3.00 credits
Provides students with an introduction to the cruise line industry, its evolution and relationship to other segments of tourism and hospitality, sales and marketing methods, management, and strategic planning are major topics. Corequisite: HFT 1000.

HFT2800
Food and Beverage Management
3.00 credits
Provides a basic understanding of the principles of food production and service management, menu planning, serving, purchasing, labor, food/bar service and costs, storage, beverage management, sales promotions, entertainment, and liability laws.

HFT3263
Restaurant Management
3.00 credits
This course prepares the student with analysis of principal operating problems facing managers in the restaurant industry. Various control systems necessary for profitability and quality are examined. Hands on Training opportunities on our Wolfson Campus food service establishments Bistro @ Tuyo and TUYO Restaurant.

HFT3603
Hospitality Law
3.00 credits
This course prepares the student with the legal aspects of the hotel, food and travel industry. Students will study the court system and basic legal principles governing the hospitality industry, with specific attention to hospitality business structures, innkeeper-guest relationships and the duty owed to each other; and emerging areas of concern in contracts, torts, civil and property rights law, and insurable risks.

HFT4064
Bar and Beverage Management
3.00 credits
This course prepares the student to manage the bar and beverage option of a restaurant, bar, hotel, country club, any place that serves beverages to customers. It provides students with the history of the beverage industry and showcases the appreciation of wine, beer, and spirits. Students will obtain the knowledge necessary to successfully equip, staff, manage, and market a bar and beverage establishment.

HFT4253
Hotel Management
3.00 credits
This course provides the student an advanced focus on the hotel industry. The course examines modern-day and futuristic trends, career opportunities, and recent innovations in the hotel industry from a management perspective. Specific emphasis will be placed on the role of the general manager, as well as the varied roles of departmental managers within the hotel and lodging industry. Topics include operations, department organization and management, benchmarking, quality control, guest service management, and financial controls of hotels.

HFT4468
Revenue Management in the Hospitality Industry
3.00 credits
This course prepares the student with revenue management practices in the hotel industry, which include capacity management, demand and revenue forecasting, discounting, overselling, displacement, rate management. How to apply pricing and length-of-stay tools and how to measure revenue management performance. Management from a focus on occupancy and average room rate to a focus on revenue per available room (RevPAR). This course prepares students to accurately forecast guest arrivals at hotels, examine pricing models in accordance with revenue management principles, and to manage overbooking.Prerequisite:ACG 2021, ACG 2021L or HFT 2421

HFT4809
Food Service Management
3.00 credits
This course prepares the student with the theoretical, organizational and operational skills necessary to understand, synthesize and put into action the management philosophies and procedures of the foodservice industry. Students will learn key concepts of creating, developing, managing, and running a foodservice business, from concept to operation.

HRM2990
CBE Rooms Division Specialist
1.00 – 13.00 credits
The Competency Based Education HRM 2990 - Rooms Division Specialist course is designed to assess learner mastery of the competencies and skills necessary for a successful career in the lodging industry. The competency-based approach allows learner the flexibility to self-direct their learning experience. As a result, the learning is much more individualized and can be significantly accelerated. Learners enrolled in the HRM 2990 CBE Rooms Division course also will have the opportunity to achieve industry-recognized academic credentials, and will be prepared for positions such as front desk agent, guest relations agent or reservation clerk.

Human Services

HUS1001
Introduction to Human Services
3.00 credits
An introduction to an overview of the field of Human Services, including the role of the human services worker as it relates to various agencies, counseling, interviewing and managing.

HUS1302
Basic Counseling Skills
3.00 credits
Development of the skills of observation, recording, reporting, interviewing and counseling. These skills are presented in the context of general counseling theory.

HUS1318
Domestic Abuse and Family Violence
3.00 credits
This course is designed to educate human services workers for the evaluation, counseling and outreach skills necessary for working with victims of domestic violence. The dynamics of partner violence, child abuse, and elder abuse will all be explored.

HUS1421
Assessment and Treatment Planning in Addictions
3.00 credits
This course is designed to familiarize students with the core functions of Assessment and Treatment Planning for the chemically dependent client. Emphasis on treatment planning will be accomplished drawing from the Florida Certification Board for addiction professionals and the Department of Children's and Family Services guidelines. Prerequisites: HUS 2493, PSB 2442.

HUS1423
Group Counseling in Substance Abuse
3.00 credits
This course stresses development of effective group counseling leadership skills including organizing, implementing, and evaluating group counseling programs. The course includes actual group experiences. Prerequisite: PSB 2442.

HUS1428
Addiction Treatment Delivery Systems
3.00 credits
This course is designed to survey the modalities of addiction treatment. The course will study federal and state systems as well as private-not-for-profit and private-for-profit programs. All of these will be described using examples drawn from local agencies, the diverse populations they serve, and the politics and economics of the systems. This course will also present a critical exploration of the history and theory defining problems of addiction treatment and the characteristics and career issues of an addiction treatment services worker.

HUS1440
Family Issues in Chemical Dependency
3.00 credits
This course is designed to analyze the effects of chemical abuse on the family system. Emphasis will be placed on family roles and dynamics; characteristics of children (including adult children) of chemical abusers; theories of co-dependence; and adaptations made individually and socially by family members. Critical issues and strategies in family treatment will be explored.

HUS1475
Addiction Counseling and the law
3.00 credits
This course is designed to introduce addiction counseling students to the vocabulary, agencies and processes required to work with clients involved in both the criminal and civil justice systems. This course focuses on the relationship between the law and Human Services institutions, patterns of law-making and law-breaking, the legal structures and processes, and law as an instrument of public policy, social control and social change. The roles and functions of police, courts and correctional services will be

surveyed. Common civil issues that affect clients in recovery will be explored. In addition, this course will enable students to explain the legal basis for alcohol and other drug services in Florida. State statutes pertaining to alcohol and drugs and their administrative rules will be reviewed. Confidentiality requirements, compliance standards, and professional ethics will be presented. Prerequisite: PSB 2442.

HUS1480
HIV/AIDS and the Substance Abuser
3.00 credits
This course is designed to educate prospective addiction counselors for the evaluation, counseling and outreach skills necessary for working with HIV disease and AIDS. The course will explore not only how this disease affects one personally, but also how this pandemic has affected many psychosocial aspects of society.

HUS2303
Counseling Techniques
3.00 credits
Specific counseling techniques are introduced within the various counseling theories. Work involves both group and individual techniques.

HUS2493
Addiction Counseling Competencies
3.00 credits
This course is designed to enable students to master the TAP 21 competencies clinical evaluation, treatment planning, referral, service coordination, counseling, client, family, and community education, documentation and professional and ethical responsibilities. Additionally, the course will teach the student the process of identifying problems, establishing goals and deciding on a client treatment plan. Students will learn how to respond to an individual's needs during acute emotional and physical distress. Prerequisite: PSB 2442

HUS2500
Issues & Ethics in Human Services
3.00 credits
This course is designed to familiarize students with the ethical problems that emerge from counseling the chemically dependent client. Emphasis will be placed on the following: the history and theory of ethics in health care; professionals' and patients' rights and responsibilities; the relationship between ethics and law; confidentiality and truth-telling in clinical relationships; technology; diagnostic testing and treatment; treatment of terminal illness; distribution of scarce medical resources and access to health care and systems payment. Prerequisite: PSB 2442.

HUS2820
Field Experience in Human Service
3.00 credits
Volunteer work as counseling paraprofessionals in a community agency under supervision. Students meet regularly with the Field Coordinator. Prerequisites: HUS 1001, 1302, 2303.

Humanities

HUM1020
Humanities
3.00 credits
In this course, students will learn about the creative ideas and accomplishments of various cultures in various fields of humanities that may include art, architecture, drama, history, music, literature, philosophy, and religion. The course will include cultural expressions from the Western canon and may also include expressions from around the globe. Student learning outcomes: students will demonstrate knowledge of arts and ideas and synthesize information from various sources; students will analyze and interpret selected expressions of arts and ideas; students will compare and contrast selected expressions of arts and ideas; and students will identify contextual influences on the development of interdisciplinary arts and ideas.

HUM2513
Arts and Humanities
3.00 credits
Selected examples of Art including painting, sculpture, architecture, literature and the performing arts to illustrate the variety of art in relation to man's perception of self, nature and God. Intended primarily for use in overseas academic programs. May be repeated for credit.

Interdisciplinary Honors

IDH1001
Honors Leadership Seminar 1
1.00 - 3.00 credits
Rigorous, in-depth exploration of selected honors topics. The topic and content are arranged by the instructor, department chairperson and campus honordirectors These seminars will consist of small groups that meet on a regular basis and be offered in any subject area.

IDH1002
Honors Leadership Seminar 2
1.00 - 3.00 credits
Rigorous, in-depth exploration of selected honors topics. The topic and content are arranged by the instructor, department chairperson and campus honors coordinators. These seminars will consist of small groups that meet on a regular basis and be offered in any subject area.

IDH2003
Honors Leadership Seminar 3
1.00 - 3.00 credits
Hours taken by students to complete a capstone (thesis) project under the supervision of an advisor and a committee, which will produce a piece of work that students may take with them to upper division institutions to demonstrate their ability to apply the principles learned and the quality of their work.

IDH2004
Honors Leadership Seminar 4
1.00 - 3.00 credits
Rigorous, in-depth exploration of selected honors topics. The topic and content are arranged by the instructor, department chairperson and campus honors coordinators. These seminars will consist of small groups that meet on a regular basis and be offered in any subject area.

Interdisciplinary Studies

IDS1107
Tools for Success
1.00 credits
This course is for students majoring in science, technology, engineering and mathematics fields (STEM). Students will learn writing, research, presentation, and technological skills necessary for success in STEM-related disciplines. Course topics include learning styles, collaborative skills, power study techniques and will use related technologies related to STEM.

IDS2124
Skills for Transfer Success
1.00 credits
This course is for students in science, technology, engineering and mathematics (STEM) for matriculation to the upper division. Students will learn to research, write, coordinate and present grants and scholarships in conjunction with the college application process. Students will document all of their efforts in an electronic portfolio.

Interior Design

IND1020
Interior Design 1
4.00 credits
Student's projects develop the ability to plan simple interior floor plans and elevations. Corequisite: ARC 1115.

IND1100
History of Interiors 1
3.00 credits
Acquaints the student with period styles in room decoration from Egyptian through the Renaissance.

IND1130
History of Interiors 2
3.00 credits
Historical development of interior design from the Renaissance through the 20th century. Writing Intensive Course.

IND1200
Interior Design 2
4.00 credits
Problems in room planning, correlation of color schemes and furnishings. Prerequisite: IND 1020.

IND1300
Interior Design Presentations 1
2.00 credits
An introductory course in the use of various media for presentation of plans, schemes, and interior perspective renderings. Prerequisite: IND 1020; corequisite: IND 1200.

IND2201
Design Principles for Kitchen & Bath
3.00 credits
A specialized design course for kitchen and baths. Students will learn the basic elements and principles of creating spaces for clients, blending architectural styles, colors and themes with function and purpose. Prerequisite: ARC2461, IND1200, IND1300.

IND2210
Interior Design 3
4.00 credits
Projects provide practice in planning traditional and contemporary interiors including working drawings and specifications. Prerequisite: IND 1200; corequisite: IND 2330.

IND2220
Interior Design 4
4.00 credits
Advanced problems involving interior arrangements in residential and commercial areas. Prerequisite: IND 2210.

IND2330
Interior Design Presentations 2
3.00 credits
Emphasis is on perfecting water color, casein and reproducible drawing techniques through the presentation of interior plans, elevations and perspectives. Projects also provide experience in assembling collages. Prerequisite: IND 1300; corequisite: IND 2210.

IND2421
Introduction to Furniture Design
3.00 credits
Hands-on course dealing with the theoretical and practical considerations for designing and building furniture and cabinetry. Students will learn basic principles of designing furniture through researching history, theory, materials, methods and design considerations associated with the construction of furniture. Prerequisite: IND1200, ARC1302.

IND2430
Lighting Design
3.00 credits
A survey of utilitarian interior lighting and exterior architectural lighting including fundamentals and basic physic laws, practical applications to interior and exterior spaces and lighting design considering different levels of space utilization and fixture efficiency. Prerequisite: IND 1200.

IND2500
Professional Practices
3.00 credits
Duties and responsibilities relative to employment and business practices. Prerequisite: Sophomore standing level or equivalent.

IND2608
Sustainable Design
3.00 credits
Introduction to basic theories and practices of ecological design in interiors. Students will learn to take responsibility for their work by understanding the impact their designs have on our environment, and ways to mitigate this impact by gaining a practical understanding of the field of sustainable design. Prerequisite: ARC1126, IND1200, IND1300; Corequisite: ARC2461.

Italian Language

ITA1120
Elementary Italian 1
4.00 credits
In this course, students will develop appropriate proficiency in interpersonal, interpretive, and presentational modes at the novice mid-level in Italian. Note: students must pass this course with a C or better to continue to ITA1121.

ITA1121
Elementary Italian 2
4.00 credits
In this course, students will develop appropriate proficiency in interpersonal, interpretive, and presentational modes at the novice high level in Italian. Note: students must pass this course with a C or better to continue to ITA2220. Prerequisite: ITA1120.

ITA2220
Intermediate Italian 1
4.00 credits
Students will understand, speak, read, write, and gain cultural awareness of Italian through a systematic review (using an integrated, multimedia approach) of reading, grammar, and writing skills with emphasis on oral and written communication. Prerequisite: ITA 1121 or equivalent.

Japanese Language

JPN1120
Elementary Japanese 1
4.00 credits
In this course, students will develop appropriate proficiency in interpersonal, interpretive, and presentational modes at the novice mid-level in Japanese. Note: students must pass this course with a C or better to continue to JPN1121.

JPN1121
Elementary Japanese 2
4.00 credits
In this course, students will develop appropriate proficiency in interpersonal, interpretive, and presentational modes at the novice high level in Japanese. Note: students must pass this course with a C or better to continue to JPN2220. Prerequisite: JPN1120.

JPN2220
Intermediate Japanese 1
4.00 credits
Students will understand, speak, read, write, and gain cultural awareness of Japanese through a systematic review (using an integrated, multimedia approach) of reading, grammar, and writing skills with emphasis on oral and written communication. Prerequisite: JPN 1121 or equivalent.

JPN2221
Intermediate Japanese 2
4.00 credits
This is a continuation of Intermediate Japanese 1. Students will learn to understand, speak, read, and write Japanese. Students will also learn to develop cross-cultural awareness through a systematic review of reading and writing skills with emphasis on oral as well as written expression. Prerequisite: JPN 2220 or equivalent.

Journalism

JOU1100
Basic Reporting
3.00 credits
Journalistic writing emphasizing the elements of reporting with an emphasis on the modern news story, analysis of the elements of news, style structure of news stories, news sources, and the mechanics of newspaper production.

JOU1946
Journalism Internship
1.00 - 3.00 credits
Qualified students will receive practical experience working with local or college communications media under the supervision of professional media specialists and the journalism faculty. Prerequisite: JOU 1100 and permission of department faculty. May be repeated for credit. Not automatically transferable.

JOU2200
Editing and Makeup
3.00 credits
The application of copy desk techniques, including evaluating and editing copy, correcting faulty news stories, handling wire copy, writing headlines, and designing page layouts. Prerequisite: JOU 1100.

Library Science

LIS2004
Strategies for Online Research
1.00 credits
LIS 2004, Strategies for Online Research, focuses on critical thinking skills for online research. Students will learn how to access, evaluate, and use information efficiently and ethically.

Linguistics

LIN2011
Introduction to Linguistics
3.00 credits
The course provides an exploration of basic linguistic concepts including phonology, morphology, syntax, pragmatics

and semantics, how a language is organized and functions, and will establish a connection between Linguistics and Translation Theory. The course will also introduce students to the study of how cultural and social factors affect human communication.

Management

FIN3400
Finance for Non-Financial Managers
3.00 credits
The students will learn to apply their financial skills and decision-making abilities to address financial issues in a business environment. They will learn how financial markets influence their decisions and the role of financial intermediaries in these markets. Emphasis will be placed on financial and capital budgeting, working capital management, short and long term financing, valuation of the firm, and overall capital structure. The course will require the student to apply the time value of money through the use of present and future value scenarios. Must pass course with a grade of "C" or higher.

FIN3403
Financial Management
3.00 credits
Students will learn the sources and uses of funds as they relate to financial decision making in the corporate form of enterprise. Emphasis is placed on working capital management, capital budgeting techniques, short and long term financing, and capital structure and the value of the firm. This course emphasizes the use of formulas and spreadsheets through Excel. Prerequisites: ACG 2071, 2071L, CGS 1060, QMB 2100 and 2100L.

ISM4011
Management Information Systems
3.00 credits
The student will use information technology software to assist in making decisions of a business nature. The course will examine the use of computer systems and information technology and their applications to make more effective business decisions. The course will include the latest terminology, techniques and applications of information systems in a business organization. Pre-requisites: CGS1060C, Senior status or permission by department chair. Must pass course with a grade of "C" or higher.

MAN2021
Principles of Management
3.00 credits
The student will learn to analyze the major functions of management. Emphasis is placed on learning how to manage organizations for excellence in both performance and employee satisfaction. Major topics include but are not limited to business ethics and social responsibility, strategic and operational planning, decision making, organization structure and behavior, managing groups and teams, communication and information technology.

MAN2300
Human Resources Management
3.00 credits
Reviews how the personnel/human resources department contributes to overall planning and profitability of an organization. Major topics include typical personnel functions: recruitment and selection, training, performance appraisal, job analysis, and compensation and benefits administration. Class discussions will focus on changing value systems in the work force and the resulting challenges for managers.

MAN2604
Managing in a Multi-Cultural Environment
3.00 credits
This course will introduce opportunities and problems encountered by managers operating in a diverse environment either within or outside their home country's borders. Discussions will cover the environment of multinational management as well as planning, organizing, staffing, leading and controlling in both domestic and multinational companies. Current events and cultural issues that significantly affect international business will also be examined.

MAN3025
Organization Management
3.00 credits
The student will learn the major functions of supervision and management including the functions of planning, organizing, leading and controlling. Emphasis is placed on learning how to communicate more effectively with employees and how to increase leadership effectiveness. Major topics include goal setting and attainment, organizational structure, decision-making, strategic planning, managing stress, and ethical behavior and ethical role modeling. Cases that present the student with opportunities to make supervisory and management decisions, along with timely feedback on their effectiveness, will be used. Must pass this course with a grade of C or higher.

MAN3065
Business Ethics
3.00 credits
In this course the student will learn how personal values and ethics influence the decision-making capacity of the manager within an organization. The student will learn about ethical theories and the roles they play in the social and corporate behavior of an organization. Issues such as diversity in the workplace, intuition, technology, and the global environment of business, will be included in case examples. The student will acquire an understanding of how an organization can institutionalize its ethical system.

MAN3240
Organizational Behavior
3.00 credits
The Students will learn about social behavioral sciences that can be applied to supervision and management through major topics include motivation, conflict, corrective actions and rewards, job related stress, organizational dynamics, the evolving global environment, and the responsibility to stakeholders and the planetary environment. The student will examine organizational behavior and how to integrate behavioral concepts in

an effective managerial decision-making process. Must pass course with a grade of "C" or higher.

MAN3301
Human Resource Management
3.00 credits
The student will learn the functions of Human Resource Management including human resource planning, strategic development of human resources, recruitment techniques, selection and hiring processes, compensation systems, development of policy and procedures for effective and ethical human resource management, performance review and evaluation systems, working effectively with organized labor, retention of employees, and current issues in human resource management. The course will also include an exploration of human resources within the global business environment of a boundless organization.

MAN3322
Human Resources Information Systems
3.00 credits
This course examines the role of human resources information system (HRIS) in today's organizations and human resources departments. The student will address topics such as human resource information systems design, acquisition, and implementation. The role of these systems in talent acquisition and management is also examined. Prerequisite: MAN3025, MAN3301.

MAN3504
Production Operations and Logistics Management
3.00 credits
This course examines the integration of production operations and logistics management and how they enable an organization to compete successfully in business. Students will learn the relationships that exist between operations and the supply chain, including operations and supply chain strategies, business processes, project management, product design and development, and inventory management. This course uses case study methodology. Prerequisites: MAN 2021 and TRA 1154.

MAN3506
Operations Management
3.00 credits
The course emphasizes the application of operational decision-making techniques to improve process, productivity, and the effective utilization of resources within organizations. Students will learn to recognize the trade-offs associated with operations management decisions and their effect on resource allocation. Topics include production processes, operations strategies, quantitative techniques, quality, performance, capacity planning, efficiency, forecasting, resource management, statistical process control, project management, and supply chains. Prerequisites: MAN 2021, QMB 2100 and TRA 3132.

MAN3554
Safety and Risk Management
1.00 credit
This course will focus on safety and risk management with emphasis on how it applies to supply chain management. Students will learn the processes used to characterize and manage risk, as well as maintain a safe operating environment with the protection of personnel, assets, and services. Hazard characteristics of products, appropriate modes of transport, carrier selection and qualifications, packaging and container specifications, driver training requirements, financial issues, security precautions, warehousing risk, OSHA, hazardous materials handling, and customer assessment will be addressed in this course.

MAN3562
Purchasing, Inventory and Warehouse Management
3.00 credits
This course explores the integration of production operations and logistics management. It will also examine purchasing, Inventory and Warehouse Management concepts and theory. Special emphasis is placed on the relationships that exist between operations and the supply chain to include operations and supply chain strategies, business processes, project management, product design and development, inventory management and effective warehouse & stores management.

MAN3577
Procurement for Major Projects
3.00 credits
Students will learn the principles of procurement for major projects concepts and theory, including advanced purchasing and cost savings techniques, contracts administration from award to completion, strategic procurement management.

MAN3578
Global Procurement Management
3.00 credits
Students will learn Global Procurement Management concepts and theory, including a good understanding in the differences in cultures, law, currency, communications and buying from foreign suppliers, international procurement is a challenge, buying internationally and to help support international procurement efforts.

MAN3583
Project Management
3.00 credits
Students will learn project management concepts and theory, including attributes for a project lifecycle, global project management, benefits of project management, project management environments, planning and managing risk, project planning controls, and terminating a project. Prerequisite: MAN 2021.

MAN3731
Assessing and Managing Project Risk
3.00 credits
This course explores project uncertainty, and how to manage risk to keep the project on track and meet project goals. Project risk management is a vital part of all projects, which requires a purposeful strategy to avoid any setbacks. In this course there will be an examination

of what the risk management process involves through the identification, assessment, and response to project risks.

MAN3786
Sustainable Enterprise Planning
3.00 credits
Students will learn the assessment tools, design and construction considerations, and operating planning requirements for sustainable enterprises. Students will also learn the ecological and economic benefits of sustainability practices, including construction, operations, supply chain decisions, recycling, reusing, and reconditioning to preserve the environment by increasing revenues. Best practices, case studies, evolving trends and experimental efforts are also covered. Prerequisite: MAN 2021.

MAN3888
Project Leadership
3.00 credits
Students will learn the fundamentals of management vs. leadership, monitoring/controlling, delegation, personal traits, communication, and people management when in a leadership role. The specifics include techniques and strategies using the company's vision and project charter needed to effectively manage, lead and direct a team to ensure reaching project objectives. As part of this process students will determine their personal leadership traits and approach.

MAN4113
Managing in a Multifaceted Environment
3.00 credits
Managing in a multifaceted environment is a thorough course that offers a management perspective on making the most of the various qualities of today's workforce. This course explores the value that comes from human capital and other distinguishing factors in the modern workplace. Furthermore, it delves into new leadership styles as solutions for effectively managing and leading people. Students will gain insights into utilizing the strengths of the workforce and creating a dynamic work environment.

MAN4120
Leadership Challenges and Supervision
3.00 credits
The student will learn to analyze leadership theories and will acquire an awareness of the dynamics of supervisory and managerial decision-making. Emphasis will be placed on team building, crisis management, social and environmental responsibility, developing and communicating a vision, developing a full set of managerial and leadership skills.

MAN4162
Customer Relations for Managers
3.00 credits
Students will learn Customer Relations for Managers skills by exploring the dynamics of building solid and lasting relationships with customers. Topics will include doing business in a global environment, cultural diversity, the diversity of customs and global etiquette, negotiation tactics, global promotional tactics, and acceptable professional and corporate behaviors in a global business environment.

MAN4330
Compensation Management
3.00 credits
This course is a study of the strategic use of compensation system for the purposes of attracting, retaining, and motivating a competitive workforce. The student will address topics such as designing compensation systems, bases for pay, employee benefit programs, laws affecting compensation practices, and compensation challenges for various employee groups. Prerequisite: MAN3025, MAN3301.

MAN4335
Employee Benefit Planning
3.00 credits
This course focuses on both wage and non-wage related benefits made available to employees by the firm and various related social and governmental programs. The student will examine various state and federal laws regarding employee benefits planning. Prerequisite: MAN3025, MAN3301.

MAN4350
Professional Development
1.00 credits
Students will learn to implement basic business etiquette, work habits, and career planning strategies required for successful transition into the business profession. Focus is on setting professional goals, preparing for a job search, networking, finding job leads, applying for jobs, interviewing for jobs, following up, and evaluating job offers.

MAN4352
Effective Employee Training
3.00 credits
This course focuses on professional development activities as performed by human resources specialists or organizational specialists. The student will analyze the benefits of employee training, establish employee development programs, and address the theories, issues, practices and problems regarding employee training and development. Prerequisite: MAN3025, MAN3301.

MAN4361
Organizational Staffing
3.00 credits
This course provides the student with an overview of the staffing function in organizations, including the topics of job analysis, forecasting, recruitment, selection, retention and turnover. It serves as an introductory course for the prospective human resources manager and as a survey of responsibility and activities of any manager with supervisory responsibilities. Prerequisite: MAN3025, MAN3301.

MAN4402
Employment Law and Regulation
3.00 credits
This course analyzes the federal and state regulation of the employment relationship, including wage and hour laws, EEO, and Affirmative Action programs. The

student will address human resource issues such as employee benefits, insurance, workers' compensation, safety, health, employees' personal rights and collective bargaining legislation. Prerequisite: MAN3025, MAN3301.

MAN4520
Quality Management
3.00 credits
This course provides an understanding of various theories of quality management (QM). Students will learn how organizations can develop excellence through the adoption of continuous improvement and process management. The course analyzes and uses various process management techniques, continuous improvement tools, and strategies to improve quality. The conceptual and analytical skills acquired in this course enable students to provide leadership in shaping a culture for quality within an organization and determining the effectiveness of quality initiatives such as Total QM, Six Sigma, Process Capability, Process Control, and Customer Relationships. Prerequisite: MAN 2021.

MAN4523
Production Information Systems
3.00 credits
This course presents the fundamental aspects of computer technology required by the systems that provide data to, and derive information from, production in manufacturing. Students will learn the techniques to organize, store, manipulate data, report, derive and analyze production information, basics networking used in production, as well as various forms of information systems.

MAN4552
Supply Chain Analytics & Decision Making
3.00 credits
Through this course students will focus on the science of learning from data to support decision making. The objective of this course is to explore and apply basic statistical concepts and procedures that are used to collect, analyze, summarize, and report data in a supply chain management role. Course topics covered include methods for: collecting, analyzing, summarizing data; making statistical inferences about populations and exploring the relationship between variables. The course introduces analytical tools and techniques that provide a cause and effect understanding linking operational plans with corporate objectives.

MAN4570
Purchasing for Industry
3.00 credits
Students will learn purchasing for industry concepts and theory, including negotiation skills: mastering the art of deal making strategies, contracts: bidding, evaluation, negotiation & award, purchasing management, tendering & supplier selection, vendor qualification: managing performance & contract compliance.

MAN4593
Supply Chain Management Theory & Methodology
2.00 credits
This course presents a range of advanced topics in integrated logistics and supply chain management. Students will learn new theoretical and methodological developments in the field of supply chain. Specific topics vary depending upon current industry developments and will incorporate the use of speakers in the classroom. Prerequisites: MAN 2021, 3583, 4523.

MAN4597
Global Supply Chain Management
3.00 credits
This course presents an overview of the management of sourcing, operations, and distribution processes along a supply chain in domestic and international markets. Students will learn how firms gain a competitive advantage through supply chain activities. Topics include: supply chain network design, purchasing, forecasting, inventory management, globalization and outsourcing, logistics, and information technology. Prerequisites: MAN 2021 and 3506.

MAN4719
Challenges in the Digital Supply Chain
4.00 credits
Through this course, students will analyze the social, ethical, and legal issues in supply chain management. Students will examine the importance of fairness, accountability, and transparency of data policies in various supply chain operations. Various issues governing the collection, storage, access, use, and sharing of data will also be explored. Prerequisite: MAN 3506, (QMB 2100 or STA 2023).

MAN4720
Strategic Management Decision Making
4.00 credits
The student will learn the designing, planning, and implementation of strategic decision making in a business organization by identifying problems and designing possible solutions, formulating plans, goals, and feedback mechanisms. Through case studies, the student will conduct internal and external assessments to analyze effective strategic choices for companies. Must pass course with a grade of "C" or higher.

MAN4732
Business Intelligence for Supply Chain
4.00 credits
This course will enable students to synthesize their learning from program coursework. The global context within which firms operate will provide the foundation for understanding global supply chain strategy, from market entry through to the integration of demand management and supply management processes to meet corporate objectives. The course will utilize exercises and a simulation to allow students to analyze and synthesize program coursework. The course will help students understand how to best use program knowledge to maximize value creation for employers and in their own career.

MAN4741
Change & Innovation Management
3.00 credits
In this course, the student will study the concepts and strategies for change management and diffusion of innovation. Topics covered include, but are not limited to, implementing change, becoming a learning organization, innovation process management, and technology forecasting.

MAN4887
Project Planning and Control Systems for Supply Chain Management
3.00 credits
Students will learn about the complex supply-chain transformation that is required to manage resources from many different departments. Additionally, an exploration of how supply-chain project managers ensure internal and external stakeholder alignment, mitigate large amounts of risk, and implement communication, risk mitigation, and change management plans to ensure a successful project. Finally, the student will gain an integrated view of supply-chain transformation that incorporates elements of change management, test plan development, project management techniques, and establishing effective project management teams.

MAN4894
Applied Case Studies in Management
3.00 credits
Students will learn to apply strategic management process through strategy formulation, implementation and evaluation utilizing the case study methodology. This course emphasizes on the identification of strategic management issues, evaluation of strategic goals, internal and external environment of the organization, as well as differentiating, categorizing and assessing strategic choices.

MAN4900
Capstone Project in Supervision and Management
4.00 credits
Student will apply and integrate the knowledge and skills learned throughout the program by completing a capstone project. Student will identify a business opportunity; conduct an industry feasibility assessment and operational mapping; evaluate market condition; construct a marketing plan, and formulate a financial plan for implementing and managing an existing or new business venture; and evaluate the role of ethic, social, and environmental responsibility within a business. Must pass course with a grade of "C" or higher.

MAN4940
Field Study and Research
2.00 credits
Students will learn to apply information and skills studied in core and concentration program courses through various special projects, field research, or internships designed for cogitative learning in a student-centered manner which requires the command, analysis, and synthesis of knowledge and skills. Prerequisites: MAN 2021, 3583, and TRA 1154.

MAN4941
Management Internship
3.00 credits
The student will learn management techniques by becoming an employee or intern (on a paid or unpaid basis) at either a not-for-profit or for-profit organization. The student will be required to work at least 144 hours required by the state to earn the credit for the internship. The student will work with their MDC Faculty and Supervising Employer to establish a set of assignments/learning goals that will be achieved during the semester. Prerequisite: Departmental Permission.

MNA1130
Writing for Financial Services
1.00-3.00 credits
This course teaches business professionals a structured approach to create clear, effective, professional business writing, including e-mail, memos, letters, and reports.

MNA1345
Effective Supervision
3.00 credits
Students will learn to implement supervisory and management practices. Emphasis is placed on learning to communicate more effectively with employees, motivating employees, increasing one's leadership effectiveness, delegating, counseling problem employees, conducting performance reviews, maintaining a discrimination and harassment-free workplace, and managing time.

MNA2120
Human Relations in Business
3.00 credits
Students will learn to implement human relations and communication skills necessary for superior performance and career advancement in the business profession. Emphasis is placed on learning and practicing effective interpersonal communication skills, giving criticism tactfully, expressing feelings constructively, being more sensitive to body language messages, and active listening. Other major topics emphasized are building self-esteem, learning how values and attitudes influence job performance and work relationships, assertion skills, group dynamics and team building, managing conflict, dealing with difficult people, and the challenges and opportunities of getting along in a culturally diverse workplace.

PET1170
Fundamentals of Athletic Coaching and Management
3.00 credits
This course will introduce students to the basic principles of athletic coaching and team management. Students will discuss the fundamentals of developing an individual athlete and team, effective

athlete training programming, and factors which impact the operations of athletic organizations. Students will develop an understanding of how policy and coaching decisions influence an organization at all levels.

PET1173
Strategies of Coaching and Competition
3.00 credits
This course will provide students with the tools and resources necessary to effectively evaluate team and athlete performance. In addition, the utilization of strategic thinking, game strategy, and available resources will be applied to coaching scenarios. Students will leverage their aggregate knowledge of coaching and competition to develop and adapt coaching and management plans to fulfill the needs of participants.

SBM1000
Small Business Management
3.00 credits
Students will learn that growing a business involves shifting from the search for and validation of a business model to executing and scaling the business model. The skill sets are different and more formal management is often required. The course reviews the context and complexity of scaling a business and executing a business model.

SPM1000
Introduction to Sports Management
3.00 credits
This course will provide students with the fundamental knowledge of the field of sports management. The course will provide an overview of sports across different levels, key events within the sports industry, the stakeholders involved, and jobs within sports. Students will learn skills and competencies that will lend towards a career in sports management.

SPM1160
Introduction to Esports
3.00 credits
This course is designed to provide students with a foundational understanding of the esports industry. Students will begin by learning the history of gaming and esports, transition into an overview of the modern esports industry, and learn how the key stakeholders influence the esports ecosystem. The interdisciplinary nature of esports and the potential career pathways will be outlined.

SPM2105
Sports Events and Facility Management
3.00 credits
This course examines the different kinds of sporting events and the facilities in which they are hosted. Through the examination of events and facilities, students will learn the basics of event and facility management and apply them in a sports-specific environment. The course will prepare students for event planning, facility and event operations, event management, and other essential competencies for career readiness.

SPM2151
The Business of Sports
3.00 credits
This course is designed to provide an overview of the financial, management, and business components of sports. Students will learn how concepts such as ticket pricing, sales, marketing, media, and sponsorship affect amateur and professional sporting events. By examining past events in sports, best business practices will be identified and discussed.

SPM2164
The Business of Esports
3.00 credits
This course is designed to introduce students to the fundamentals of business and the sources of revenue within the esports industry. Utilizing past business failures and successes within the industry as case studies, the students will learn the best business practices and how to leverage esports revenue sources for success. Additionally, current, and future business trends within esports will be discussed.

SPM2167
Esports Event Management
3.00 credits
This course will provide students with the basic concepts of event management. General event management concepts will be applied to esports-specific events to better prepare students to run both online and in-person events. Pertinent event management concepts such as determining the purpose of an event, different event formats, sponsorship, marketing, staffing, and risk management will be covered.

SPM2201
Sports Ethics and Leadership
3.00 credits
This course will provide students with an understanding of effective leadership and help students begin to develop their own ethical framework. Students will examine ethical issues in sport such as the use of performance-enhancing drugs, cheating, match-fixing, etc. Additionally, students will learn how to apply different leadership styles and theories to develop a cohesive team culture and effectively navigate contemporary ethical issues within sport.

SPM2950
Esports Management Capstone
3.00 credits
Course Description: This course employs project-based learning to create an opportunity for students to bolster their portfolio. Students will select an area of interest in esports and construct a business plan or other approved project. Key concepts learned in other esports, and business courses will be applied to exhibit the culmination of esports and management knowledge.

TRA1154
Introduction to Supply Chain Management
3.00 credits
This course is an introduction to the concepts, principles and techniques in the field of supply chain management (SCM) with particular emphasis on the economic significance of distribution to business and the U.S. economy. Students will learn the interrelationship between logistics and other areas of business, noting how the SCM pipeline can significantly impact customer loyalty by adding value.

Marketing

MAR1011
Principles of Marketing
3.00 credits
This introductory course emphasizes key concepts and issues underlying the modern practice of marketing. The course provides the student with a clear understanding of marketing's role in the 21st Century and introduces the student to both traditional and contemporary ways of marketing. The student will learn how marketers deliver value by satisfying customer needs and wants, determine which target markets to serve, and decide which goods and services are needed to serve these markets.

MAR1440
Fundamentals of Negotiations
3.00 credits
This course introduces the negotiation process and identifying consumer motivations.Students will analyze the various positions of negotiations from gaining leverage to making considerations. Students will examine a long-term sales strategy and how a balanced negotiation plan impacts it.

MAR1502
Sales and Consumer Behavior
3.00 credits
This course introduces the process consumer's use in making purchase decisions. Students will analyze how developing a sales personality factors into producing prospects, leads, and ultimately generating sales.Students will identify how both buyer and seller behaviors interact in the sales process.

MAR1720
Marketing in a Digital World
3.00 credits
This course provides an introduction to new marketing concepts and the broad spectrum of digital marketing. Students will learn to utilize digital tools, social networks and media, strategies, and tactics to create awareness and to promote products and services to consumers and businesses.

MAR1930
Introduction to Salesforce Marketing Cloud
1.00-3.00 credits
This course introduces students on how to build and personalize a 1:1 marketing campaign that can help connect and deliver the right message, to the right person, at the right time. Students will learn how to manage the most utilized marketing channels in the industry and discover new marketing tools.

MAR1931
Fundamentals to Social Media and Search Engine Marketing
1.00-3.00 credits
This course provides an introduction on how to use social media and search engines for marketing and learning how to grow the brand value of companies. Students will be exposed to the latest social media trends and search engine marketing techniques.

MAR1932
Email Marketing Fundamentals
1.00-3.00 credits
This course introduces email marketing using Mailchimp with powerful marketing tips and techniques that will help students jump forward and build a list of targeted subscribers. Students will learn a variety of applications ranging from creating email lists, marketing campaigns, sending emails and how to read reports and analytics.

MAR1933
Fundamentals of Marketing Analytics
1.00-3.00 credits
This course provides an introduction on how to build and define a brand architecture and how to measure the impact of marketing efforts on brand value over time. As an introduction to Google Analytics, students will learn how to create an account, setup and navigate the Google Analytics interface.

MAR2101
Social Media Marketing
3.00 credits
This course addresses the changes in marketing as a result of social media. The student will explore in-depth the role of social media in marketing. The student will focus on developing an effective marketing plan utilizing social media, with an emphasis on the importance of building an online customer community and developing customer engagement and loyalty.

MAR2150
International Marketing
3.00 credits
Students will learn the four P's of product, price, place (distribution), and promotion as they relate to a global marketing strategy. The concepts are introduced within the international trade framework, as well as the cultural, social, economic, regulatory, and political environments affecting global marketing efforts.

MAR2419
Technology in Sales
3.00 credits
This course introduces the various technological tools used in the sales process. Students will explore sales management software, data management, artificial intelligence sales technology, and automated sales functions.Students will analyze the benefits of utilizing technology and the competitive advantage it provides to a sales force. Prerequisites:MKA1160.

MAR2520
Hispanic Marketing Communications
3.00 credits
Students will learn how firms can formulate strategies to attract the U.S. Hispanic market and its various sub-segments. Emphasis is on strategy formulation and integrated marketing communications, including the use of case studies.

MAR2703
Marketing Content, Branding and Strategy
3.00 credits
This course provides an introduction into branding and content strategy. Students will explore concepts, such as: integrated marketing communications, consumer psychology, buying motivations, appropriate content, branding, and marketing strategy as it relates to digital marketing. Students will have the opportunity to practice their writing and communication skills in the development of digital marketing content.

MAR2704
Marketing Web Analytics
3.00 credits
This course helps students to develop a deep understanding of the digital analytics landscape. The student will learn how to identify which metrics are best to measure web, mobile, social and marketing channels, and how organizations use web analytics to obtain higher profits, improved customer relationships, and measurable value.

MAR2935
Fundamentals of Google Analytics
1.00-3.00 credits
This course illustrates the advanced analytical tools of Google Analytics to provide students with an understanding of how to use data to drive digital business and marketing campaigns. The course will introduce topics ranging from performance measurements, basic metric definition, socio-demo data and website traffic evaluation.

MAR2952
Digital Marketing Capstone
3.00 credits
This course provides a real-world approach to designing, implementing, managing and analyzing a digital marketing campaign or strategy. The student will engage in a comprehensive field experience designed to gain insights into the creative processes and demonstrate competence by applying the knowledge and concepts of marketing.

MAR3325
Digital Advertising
3.00 credits
In this course students learn about the principles and practices of digital advertising, as well as hands-on experience with the tools and platforms used in the industry. Students will learn about search engine advertising, social media advertising, e-commerce advertising, video advertising and effective implementation of advertising campaigns. Prerequisite: MAR 3803.

MAR3803
Marketing for Managers
3.00 credits
Students will learn how managers implement the marketing elements within a strategic planning framework. Emphasis is on decision-making, and the development and execution of marketing strategies related to product and brand development, channels of distribution, pricing, and promotional efforts under varying marketplace conditions. This course incorporates the use of case studies. Prerequisite: MAN2021.

MAR4203
Supply Chain Marketing
3.00 credits
Students will learn the management of traditional and emerging marketing channels, with emphasis on legal, economic, and ethical considerations in wholesale and retail inventory control, raw goods, finished product transportation and relationship management. Prerequisites: MAN 3506.

MAR4233
Social Media Marketing Application
3.00 credits
This course introduces students to social media and marketing functions and strategies that are essential to consumer involvement, community engagement, and customer relationship management. Students will learn about the dynamics of social marketing, trends in new technology, and integrated marketing through online platforms. Prerequisite: MAR 3803.

MAR4327
Search Engine Optimization (SEO) and Search Engine Marketing (SEM)
3.00 credits
In this course students will learn how to optimize websites for search engines and search engine ranking. Students will learn how to use social media to complement and enhance traditional SEO strategies. Students will apply their knowledge of search and search optimization tools and technics using leading industry certification. Prerequisite: MAR 3803.

MAR4674
Marketing Analytics
3.00 credits
A study of the metrics and systems needed to receive a return on every sale and marketing investment made. This course focuses on common calculations used in business to determine market share, penetration, brand/category development, awareness, margin, price per unit, break-even. The focus of this course is to enable students to take the vast amount of "data" available within companies and turn that data into "information" making them that much more valuable to potential employers. Prerequisite: MAR 3803.

MAR4721
Digital Marketing Strategy
3.00 credits
Students will learn the process of creating a plan and developing a strategy for promoting a business or organization using digital channels. Students will learn how to apply their knowledge and skills in a marketing campaign project. Students will plan, implement and evaluate a digital

marketing campaign using case studies and collaborative projects. Prerequisite: MAR 3803.

MAR4860
Customer Relationship Management
3.00 credits
In this course students will learn how to effectively manage relationships with customers to increase customer satisfaction, loyalty, and retention. They will learn about customer behavior, communication strategies, data analysis techniques and CRM tools and technics to better understand and meet the needs of their customers. Prerequisite: MAR 3803.

MKA1021
Fundamentals of Selling
3.00 credits
The nature and requirements of selling, including a consideration of buyer motivations and selling theories in relation to various buyer-seller situations.

MKA1022
Relationship Selling
3.00 credits
This course introduces the role that relationship building plays in sales.Students will explore the communication process and the importance of interpersonal skills in developing a relationship for an effective sales strategy.Students will develop a sales presentation based around consumer needs.

MKA1160
Customer Relationship Management
3.00 credits
This course provides an introduction into Customer Relationship Management (CRM). Students will be exposed to concepts ranging from identifying customer needs, communication channels, customer acquisition cost, demographics and target marketing.Students will learn the role CRM plays in a sales strategy.

MKA1161
Introduction to Customer Service
3.00 credits
A survey course which examines the attitudinal, behavioral and procedural basics which are common across all customer service sectors. An extensive vocabulary of customer service terms will be developed and students will understand their practical application in today's business environment.

MKA1511
Principles of Advertising and Copywriting
3.00 credits
Techniques and behavioral factors used in advertising and copywriting which best motivate the consumer. Principles are applied in clear, concise written expression of various appeals used in selling goods and services.

MKA2024
Organizational Sales Management
3.00 credits
This course introduces the role of a sales manager and sales team within an organization.Students will examine the management process of recruiting, leading, and setting sales targets and quotas for a sales team.Students will explore sales analytics that measure the effectiveness of an organizational sales strategy.

Mass Communications

MMC2000
Introduction to Mass Communications
3.00 credits
Development of a critical perception of the mass communications process and its results in both printed and electronic media. Applications of the ethics and codes of journalism to the changing roles and forms of journalistic media. MMC 2000 will transfer for mass communications majors to various universities within the Florida State System.

PUR2003
Public Relations
3.00 credits
This course provides students with a broad spectrum of topics as related to the Public Relations profession. Current practices or organized programs used in business to earn public acceptance and good will for products, services, personnel, and policies are explored, studied and experienced. The course employs a hands-on approach to applying public relations technique in hypothetical business situations. Students prepare press releases, brochures, and other collateral materials.

Mathematics College Level

MAC1105
College Algebra
3.00 credits
In this course, students will develop problem solving skills, critical thinking, computational proficiency, and contextual fluency through the study of equations, functions, and their graphs. Emphasis will be placed on quadratic, exponential, and logarithmic functions. Topics will include solving equations and inequalities, definition and properties of a function, domain and range, transformations of graphs, operations on functions, composite and inverse functions, basic polynomial and rational functions, exponential and logarithmic functions, and applications. Student learning outcomes: students will solve an equation or an inequality using an appropriate technique; students will define and describe functions, their properties, and graphs; students will manipulate functions to simplify expressions and find new functions; students will use transformations to write an equation for a function and to graph a function; and students will model and solve real world problems using functions. Prerequisite: MAT 1033 with a grade of "C" or better. Computational Course.

MAC1105L
College Algebra Co-Requisite Lab
1.00 credit
Students will remediate high school mathematics knowledge to prepare themselves for College Algebra Concepts, while reinforcing concepts being learned in College Algebra and applying their knowledge to real world applications. Corequisite: MAC 1105. Computational Course..

MAC1106
Integrated College and Precalculus Algebra
5.00 credits
The student will learn to analyze linear, quadratic, polynomial, rational, radical, absolute value, composite, inverse, piecewise, exponential, and logarithmic functions, conic sections, systems of equations/inequalities, matrices and determinants, sequences & series, the Binomial Theorem, and applications of mathematical modeling including exponential growth and decay. Prerequisite: MAT1033 with a grade of "B" or better. Fulfills Gordon Rule computational requirement.

MAC1114
Trigonometry
3.00 credits
This course will cover the analysis and graph of trigonometric functions and inverse trigonometric functions, the fundamental trigonometric identities, solutions to conditional trigonometric equations, solutions for both right and oblique triangles, operations on complex numbers in trigonometric form, work with vectors, graph both polar and parametric equations, and solutions of applications and modeling problems related to the above topics. Prerequisite: MAC 1105 or MAC 1106 with a grade of "C" or better. Computational Course.

MAC1140
Pre-Calculus Algebra
3.00 credits
This course will cover properties and graphs of algebraic, exponential, and logarithmic functions, piecewise-defined functions, the Fundamental Theorem of Algebra, solutions of polynomial equations, conic sections, systems of equations, matrices, and determinants, arithmetic and geometric sequences and series, the Binomial Theorem, and corresponding applications and modeling. Prerequisite: MAC 1105 with a grade of "C" or better or equivalent. Computational Course.

MAC1147
Pre-Calculus Algebra and Trigonometry
5.00 credits
The course will cover the properties and graphs of algebraic, exponential and logarithmic functions, piecewise-defined functions, the Fundamental Theorem of Algebra, solutions of polynomial equations, conic sections, systems of equations, matrices and determinants, arithmetic and geometric sequences and series, the Binomial Theorem, graph of trigonometric functions and inverse trigonometric functions, the fundamental trigonometric identities, solutions to conditional trigonometric equations, solutions for both right and oblique triangles, operations on complex numbers in trigonometric form, vectors, graphs of polar and parametric equations, and solutions of applications and modeling problems related to the above topics. Prerequisite: MAC1105 with a grade of "C" or better or departmental permission. Computational Course.

MAC2233
Business Calculus
3.00 credits
This course introduces the basic concepts of differential and integral calculus for students majoring in business administration and related fields. Topics include limits, continuity, differentiation and integration of polynomials, logarithmic and exponential functions with applications to business, economics, and the life sciences. Prerequisite: MAC 1105 or MAC1106 with a grade of C or better or departmental permission. Computational Course.

MAC2311
Calculus and Analytical Geometry 1
5.00 credits
In this course, students will develop problem solving skills, critical thinking, computational proficiency, and contextual fluency through the study of limits, derivatives, and definite and indefinite integrals of functions of one variable, including algebraic, exponential, logarithmic, and trigonometric functions, and applications. Topics will include limits, continuity, differentiation and rates of change, optimization, curve sketching, and introduction to integration and area. Student learning outcomes: students will calculate a limit, derivative, or integral using appropriate techniques; students will determine the continuity and differentiability of a function; students will use limits and derivatives to analyze relationships between the equation of a function and its graph; students will apply differentiation techniques to model and solve real world problems; and students will use integrals and the fundamental theorem of calculus to analyze the relationship between the integral of a function and the related area. Prerequisites: MAC1106 and MAC1114, or MAC1114 and MAC1140, or MAC1147 with a grade of "C" or better or departmental permission. Computational Course.

MAC2312
Calculus and Analytical Geometry 2
4.00 credits
This second semester calculus course the student will examine techniques of integration, applications of integration in STEM subjects, sequences and series, representation of functions by Taylor series, parametric equations, calculus in polar coordinates, and improper integrals. Prerequisite: MAC 2311 with a grade of "C" or better. Computational Course.

MAC2313
Calculus and Analytic Geometry 3
4.00 credits
The student will examine topics in analytic geometry in three dimensions, vectors and vector functions, curves and surfaces in three-space, partial differentiation and applications to optimization, multiple

integrals and their applications, vector fields, line integrals and surface integrals, Green's Theorem, and the Divergence and Stokes' theorems. Prerequisite: MAC 2312 with a grade of "C" or better. Computational Course.

MAD1100
Discrete Mathematics for Computer Science
3.00 credits
This course introduces students to the principles of discrete mathematics that apply to computer science. Topics include set theory, logic, Boolean algebra, number theory, vectors and matrices, combinatorics, probability, relations, functions, and basic graph theory. Prerequisite: MAC1105. Computational Course.

MAD2104
Discrete Mathematics
3.00 credits
This course introduces the student to the principles of discrete mathematics that apply to computer science. The student will examine set theory, logic, Boolean algebra, number theory, vectors and matrices, combinatorics, probability, relations, functions, and basic graph theory. Prerequisite: MAC1106 or MAC1140. Computational Course

MAD3107
Discrete Structures
3.00 credits
Topics include sets, logic, switching circuits, Boolean algebra, combinatory, probability, mathematical proofs, mathematical induction, functions, relations, and graph theory. Credit is not also given for MAD 2104. Prerequisite: MAC 2312.

MAP2302
Introduction to Differential Equations
3.00 credits
This course emphasizes ordinary differential equations, methods of solution of first order linear and nonlinear equations and applications, homogeneous and nonhomogeneous linear equations with constant coefficients, differential operator methods, higher order linear equations; the Laplace transform and its properties, elementary existence theorems, series solutions, numerical solutions of first order equations, initial and boundary value problems, vibrations and waves, and an introduction to autonomous systems. Prerequisite: MAC 2312 with a "C" or better or equivalent. Computational Course.

MAS2103
Elementary Linear Algebra
3.00 credits
This course introduces the student to linear algebra and its applications. The student will examine linear systems of equations, matrices, determinants, vectors spaces, inner product spaces, linear transformations, linear independence and basis, eigenvalues and eigenvectors, decomposition theorems, and elements of proof writing. Prerequisite: MAC 2311. Computational Course.

MAS3105
Linear Algebra
3.00 credits
This course is designed for students who are majoring in secondary mathematics education. Major topics include systems of linear equations, matrices, determinants, vector spaces, linear transformations, eigenvectors and eigenvalues, inner-product spaces and orthogonality. Prerequisite: MAC 2312.

MAS3301
Algebraic Structures
3.00 credits
This course is designed for students who are majoring in secondary mathematics education, mathematics, science or engineering. Topics include set theory, basic properties of the integers, groups, rings, fields and the homomorphism's of these algebraic structures. Prerequisite: MAC 2312.

MAS4203
Number Theory
3.00 credits
Topics include mathematical induction, divisibility, the Euclidean algorithm, primes, the Fundamental Theorem of Arithmetic, number-theoretic functions, congruence, linear Diophantine equations, linear congruence's, the Chinese Remainder Theorem, and the theorems of Euler, Fermat, and Wilson. Prerequisite: MAC 2312.

MAT1033
Intermediate Algebra
3.00 credits
The student will learn the concepts of linear equations, quadratic equations, rational equations, radical equations, rational expressions and equations, complex numbers, graphing linear equations and inequalities in one and two variables, and related applications. Prerequisites: MAT0022C, or MAT0028, or MAT0057 or by placement score, or eligible exemption.

MAT1033L
Intermediate Algebra Recitation Hall
0.00 credits
The student will receive individualized, small group or whole group instruction to deepen their conceptual understanding of mathematics. The student will reinforce and apply content knowledge with effective problem-solving techniques and non-cognitive activities to make mathematics meaningful and relevant to their fields of study while strengthening the concepts needed to achieve the objectives of MAT1033.
Corequisite: MAT1033

MGF1130
Mathematical Thinking
3.00 credits
In this course, students will utilize multiple means of problem solving through student-centered mathematical exploration. The course is designed to teach students to think more effectively and increase their problem-solving ability through practical application and divergent thinking. This course is appropriate for students in a wide range of disciplines/programs. Student learning outcomes: students will determine efficient means of solving a problem through investigation of multiple mathematical models; students will apply logic in contextual situations to formulate and determine the

validity of logical statements using a variety of methods; students will apply mathematical concepts visually and contextually to represent, interpret and reason about geometric figures; students will recognize the characteristics of numbers and utilize numbers along with their operations appropriately in context; and students will analyze and interpret representations of data to draw reasonable conclusions. Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption). Computational Course.

MGF1131
Mathematics in Context
3.00 credits
Through this course, students will experience the practicality of mathematics in a global society. Students will engage in the applications of tools and techniques of mathematics in a variety of contextual situations from everyday life. This course is appropriate for students in a wide range of disciplines/programs. Prerequisite: Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption). Computational Course.

MTB1103
Business Mathematics
3.00 credits
Reviews the basic arithmetic processes and covers mathematics and computations used in business including cash and trade discounts, commissions, markup, markdown, depreciation, simple and compound interest and bank discounts, payroll records, taxes, insurance, inventory, analysis of financial statements, statistics (mean, median, and mode), charts and graphs, and consumer applications.

MTG3214
Euclidean Geometry
4.00 credits
This course encompasses a range of geometry topics and pedagogical ideas for the teaching of geometry including properties of shapes, defined and undefined terms, postulates and theorems, logical thinking and proofs, constructions, patterns, and sequences, the coordinate plane, axiomatic nature of Euclidean geometry, and basic topics of non-Euclidean geometries. Prerequisite: MAC 1147.

Mathematics – Developmental Education

MAT0018
Developmental Mathematics 1
4.00 credits
The student will learn operations with whole numbers, integers, fractions, decimals, percent's and their applications; simplifying and evaluating algebraic expressions; ratios and proportions; solving linear equations in one variable and graphing solutions to linear inequalities. This course does not satisfy the college level mathematics requirements. Prerequisite: Non-demonstration of readiness through placement testing or alternate methods or referral determine admission.

MAT0022
Developmental Mathematics Combined
5.00 credits
This course combines Developmental Mathematics I and II. The student will learn operations on signed numbers, solving linear equations and inequalities in one variable, operations on polynomials, factoring, integer exponents, radicals, graphing, and applications. This course does not satisfy the college level mathematics requirements. Prerequisite: Non-demonstration of readiness through placement testing or alternate methods or referral determine admission.

MAT0028
Developmental Mathematics 2
4.00 credits
The student will learn topics which include operations with signed numbers; solving linear equations and inequalities in one variable; operations with polynomials, factoring, integer exponents, radicals, rational expressions, graphing and applications of these topics. This course does not satisfy the college level mathematics requirements. Prerequisite: MAT0018 with a minimum grade of S or Non-demonstration of readiness through placement testing or alternate methods.

MAT0029
Developmental Mathematics for Statistics
3.00 credits
This course will introduce the student to ratios, proportions, scaling, modeling with equations and inequalities, tables, graphs, linear functions, and non-linear functions, in preparation for Statistics. The student will learn the language of mathematics and mathematical symbols, procedural fluency, strategic competence, adaptive reasoning, quantitative investigative techniques, and questioning and solution-building skills. Prerequisite: Non-demonstration of readiness through placement testing or alternate methods.

MAT0057
Developmental Mathematics (Modules 3.0)
3.00 credits
Students will learn to strengthen arithmetic, geometry, and algebra skills. This course does not satisfy the college level mathematics requirements. Prerequisite: Non-demonstration of readiness through placement testing or alternate methods or departmental permission.

Medical Laboratory Technology

MLS3150
Special Topics in Medical Laboratory Sciences
3.00 credits
This course stresses the importance of evidence-based practice in the medical laboratory sciences field. Students will be presenting case studies to the faculty and peers in the program. Instruction will emphasize professional, legal and ethics issues affecting the medical

laboratory science field. Students will review the material covered in the program to prepare for the comprehensive assessment.

MLS4181C
Immunohistochemistry
3.00 credits
This course introduces the various techniques that are used in the preparation and evaluation of immunohistochemistry slides. Procedures and terminology related to immunohistochemistry are also discussed and strategies for troubleshooting problems are presented.

MLS4193
Clinical Molecular Diagnostics
3.00 credits
Clinical molecular diagnostics course provides an introduction to molecular analysis of biological markers in clinical samples to aid in the diagnosis, monitoring and treatment of diseases.

MLS4195C
Enzyme Histochemistry
3.00 credits
Introduction to advanced techniques and special procedures. Students will learn procedures for, muscle enzyme Histochemistry and molecular histology. The course will include tissue preparation, staining technology, quality control and troubleshooting.

MLS4196C
IN-SITU Hybridization or FISH
3.00 credits
This course will explore the theoretical concepts used in fluorescence in-situ hybridization (FISH) testing. Commonly used FISH methodologies, necessary equipment, and the enumeration of FISH signals will also be discussed.

MLS4198
Immunohistochemistry Clinical
5.00 credits
This clinical course will introduce the students to the basic immunohistochemistry techniques as applied to the routine anatomical pathology laboratory.

MLS4221
Clinical Urinalysis
3.00 credits
The study of body fluids for physical health and identification of abnormalities in relation to disease states.

MLS4306
Clinical Hematology
3.00 credits
This course is the study of the composition and function of blood; diseases related to blood disorders. Students will receive the necessary skills in the application of hematology diagnostic procedures, interpretation, problem solving and correlation of laboratory findings with disease states.

MLS4335
Clinical Hemostasis
3.00 credits
This course provides an overview application of hemostasis (coagulation), as it relates to the medical laboratory. Presents coagulation laboratory principles with hemostasis diagnostic procedures, interpretation, problem solving and correlation of laboratory findings and results in accordance to the disease states.

MLS4461
Clinical Diagnostic Microbiology
3.00 credits
Clinical Diagnostic Microbiology provides concepts in bacteriology identification methods, rapid identification methods for parasites and fungi and an overview of virology methodology.

MLS4506
Clinical Immunology
3.00 credits
Clinical Immunology will provide an overview of immunology concepts and the theory of some immunologic procedures. The immunologic manifestation of infectious disease and immune disorders will also be covered.

MLS4552
Clinical Immunohematology
3.00 credits
The study of concepts related to the blood group systems, blood antigens and antibodies. The student will analyze the principles, procedures and clinical significance of testing in genetics, pre-transfusion testing, adverse effects of transfusions, donor selection and components, and hemolytic disease of the newborn.

MLS4621
Clinical Biochemistry
4.00 credits
This course provides the student with the knowledge and understanding of clinical disorders and how biochemical factors and laboratory methods are used for the investigation, diagnosis and management of patients.

MLS4630
Clinical Chemistry
3.00 credits
The study of the concepts and principles of Clinical Chemistry. Analytes and lab values are correlated to normal homeostasis and disease states.

MLS4705
Laboratory Operations and Management
3.00 credits
This course provides students with Quality Management skills necessary in the medical laboratory. Students are exposed to organizational structure along with principles for leadership and managerial decision making and process improvement along with different principles used in Laboratory Instrumentation.

MLS4910
Advances in Histotechnology Capstone
7.00 credits
This course will support the educational development of the histotechnology students by providing an opportunity for in-depth learning in one of the following domains Cytopreparatory techniques; Digital pathology; Electron microscopy; Micro-wave (MOHS) pathology; Ocular

pathology histotechnology techniques; which will result in a scholarly project underlying its relevance in today's advanced pathology laboratories.

MLT1040L
Fundamentals of Laboratory Operations
1.00 credit
This course will introduce students to the fundamental principles, skills and concepts of the major areas in the Clinical Laboratory. This includes introduction to blood collection, handling of specimens, professional ethics, medical terminology, safety and regulatory practices.

MLT1191
Histotechnology 1
3.00 credits
This course will introduce students to the fundamental principles of histologic technology. These include the principles of fixation, processing for paraffin-embedding, microtome sectioning, staining and cover-slipping and laboratory safety.

MLT1191L
Histotechnology 1 Lab
3.00 credits
This course will introduce students to fundamental laboratory skills and safety concepts in histologic technology. It includes laboratory aspects of specimen preparation, fixation, sectioning and routine staining. The student will also be introduced to the basic principles of record keeping, use and maintenance of laboratory equipment and quality control.

MLT1195C
Tissue Identification 1
3.00 credits
This course will introduce students to the study of human organs and tissues for the purpose of developing histotechnological skills. It will include recognition, composition, and function of organs and tissues. Macroscopic and microscopic laboratory examination and evaluation of specimens will be included.

MLT1196
Laboratory Safety and Regulations
2.00 credits
This course will introduce students to the rules and regulations governing safety in the histotechnology laboratory. It will also introduce students to the federal regulations pertaining to the histotechnology laboratory and methods of compliance. Prominent safety issues to be covered include the biological and chemical hazards in histology laboratory, formaldehyde standard, hazardous waste disposal and minimization.

MLT1210C
Clinical Urinalysis with Lab
2.00 credits
Theoretical concepts and practice in the collection and analysis of urine and other body fluids by combination didactic and laboratory instruction. Performance of routine urinalysis procedures including microscopy with identification of related disease states.

MLT1300
Clinical Hematology
2.00 credits
Didactic study of blood cells to include the origin, morphology, function and dysfunction of cells and related disease states of the blood. Theoretical concepts and principles of routine hematology procedures, quality control and instrumentation. Corequisite; MLT 1300L.

MLT1300L
Clinical Hematology Laboratory
2.00 credits
Manual and automated procedures in hematology. This includes blood cell counts and other basic hematologic procedures in the simulated laboratory and in the clinical setting. Corequisite: MLT 1300.

MLT1330
Clinical Coagulation
1.00 credits
Didactic study of hemostasis, various clotting mechanisms, and related disease states. Corequisite: MLT 1130L.

MLT1330L
Clinical Coagulation Laboratory
1.00 credits
Performance of selected coagulation assays by manual and automated methods. The significance of test results to assess hemostasis in health and disease is included. Corequisite: MLT 1330.

MLT1500
Clinical Immunology/Serology
2.00 credits
Theoretical concepts of the human immune system in health and disease. Relationships to immunohematology, infection, and serological procedures are analyzed. Pre/corequisite: BSC 2085; prerequisite: BSC 2086; corequisite: MLT 1500L.

MLT1500L
Clinical Immunology/Serology Laboratory
1.00 credits
Performance of serological procedures that are identified in MLT 1500. The clinical significance of test results to disease states is included. Pre/corequisites: BSC 2085, 2086; corequisite: MLT 1500.

MLT1610
Clinical Chemistry 1
2.00 credits
Theoretical concepts and principles of carbohydrate, non-protein nitrogen, and electrolyte chemistry analyses with emphasis on their relationships to various disease states. Analytical procedures to assess liver function and acid-base balance are also included. Prerequisite: CHM 1025; corequisite: MLT 1610L.

MLT1610L
Clinical Chemistry 1 Laboratory
2.00 credits
Performance of chemistry procedures on body fluids with emphasis on manual and automated instrumentation. Prerequisite: CHM 1025L.

MLT1752
Quality Control Laboratory Mathematics
2.00 credits
Emphasis on mathematical computations related to procedures in the clinical laboratory including dilutions, solutions, calorimetry, hematology math, enzymatic calculations, calculations relating to renal function tests, and mathematical principles related to ionic solutions. The student will also be given specific statistical tools necessary for quality control procedures as well as interpretations of Levy-Jennings charts and troubleshooting tools.

MLT1840L
Histotechnology Practicum 1
5.00 credits
This is a clinical experience in which students will learn the techniques of processing human tissue for histological purposes. Prerequisite: MLT 2192.

MLT2180C
Infectious Diseases & Control Practices
3.00 credits
This course will focus on the principles of transmission and control of diseases with an emphasis on infectious tissue specimens. Prerequisites: MCB 2013, 2013L.

MLT2192
Histotechnology 2
3.00 credits
This course is a continuation of Histotechnology 1. Students will be introduced to advanced processing techniques of human tissue for anatomical pathology and concepts of instrumentation. Prerequisite: MLT 1191.

MLT2192L
Histotechnology 2 Laboratory
2.00 credits
This course is a continuation of Histotechnology Lab 1. Students will be introduced to more complex laboratory techniques in histotechnology. Prerequisite: MLT 1191L; corequisite: MLT 2192.

MLT2197C
Tissue Identification 2
4.00 credits
This course will provide the students with the correlations between histotechnological procedures and diseases processes. Students will study the changes in tissue that are associated with various disease states, and will learn the usefulness of selected special stains and techniques in identifying disease processes. Prerequisite: MLT 1195C.

MLT2198
Histochemistry
3.00 credits
This course will introduce students to organic chemistry of stains and special stains, dyes, hydrocarbons; aromatics, alcohols, ethers, aldehydes, ketones, carbonyl compounds, amines and amides. Prerequisites: CHM 1033, 1033L; corequisite: MLT 2198L.

MLT2198L
Histochemistry Laboratory
3.00 credits
This course will introduce students to biochemicals used in histology with emphasis on laboratory preparation and use of histochemical and immune histochemical stains. Prerequisite: CHM 1033L; corequisite: MLT 2198.

MLT2403
Clinical Microbiology 2
2.00 credits
This course will provide a working knowledge of clinical bacteriology and should complement the Microbiology 2 Lab. The student will be exposed to some of the indigenous flora and the pathogenicity of microorganisms as they affect various body sites. Specimen transport, collection, laboratory identification techniques, and antimicrobial therapy also provides the knowledge base necessary for working in a clinical setting.

MLT2403L
Clinical Microbiology Lab 2
2.00 credits
This course is designed to complement the Microbiology 2 lecture and provide students with the necessary knowledge base and laboratory skills to effectively identify microorganisms associated with infectious diseases.

MLT2440
Clinical Microbiology 1
1.00 credits
This course will provide an overview of clinical mycology and parasitology. Topics will include both parasites and fungi and will cover life cycles, epidemiology, and etiology. Emphasis will be given to the most commonly encountered mycoses and parasitic infestations. This course should be taken concurrently with Clinical Microbiology 1 Lab.

MLT2440L
Clinical Microbiology Lab 1
1.00 credits
This course provides a practical overview of mycology and parasitology. Students will also obtain hands-on experience working with formalin preserve ova and parasites. They will also obtain the knowledge necessary to be able to identify at least the genus level of the most commonly encountered yeasts and fungi using microscopic and macroscopic techniques. This course should be taken concurrently with Clinical Microbiology. Corequisite: MLT 2440.

MLT2525
Immunohematology
2.00 credits
Theoretical concepts involving blood group systems, hemolytic diseases, and blood bank procedures relating to transfusion and component therapy. Prerequisite: MLT 1500; corequisite: MLT 2525L.

MLT2525L
Immunohematology Laboratory
2.00 credits
Performance of basic blood typing, blood bank assays on prepared specimens, and appropriate quality control procedures.

Interpretation of results is included. Prerequisite: MLT 1500L; corequisite: MLT 2525.

MLT2620
Clinical Chemistry 2
2.00 credits
Theoretical concepts and principles of proteins, enzymes, and lipids with emphasis on their relationship to various disease states. Prerequisite: MLT1610; corequisite: MLT 2620L.

MLT2620L
Clinical Chemistry 2 Laboratory
1.00 credits
Performance on those analyses identified in MLT 2620 including electrophesis and quality control. Prerequisite: MLT 1610L. Corequisite: MLT 2620.

MLT2624L
Special Techniques in Clinical Chemistry
2.00 credits
The principles and performance of radioimmunoassay, EMIT, ELISA, and toxicological techniques for thyroid function, hormones, and toxic substances. Prerequisites: MLT 1610, 1610L; corequisites: MLT 2620, 2620L.

MLT2807L
Hospital Practicum: Immunohematology
3.00 credits
A supervised laboratory rotation in a clinical immunohematology facility. This provides the student an opportunity for the practice of skills previously learned and for the acquisition of new procedural skills. The development of interpersonal skills and the transition from student to professional are emphasized. Prerequisites: MLT 2525, 2525L; corequisite: MLT 2930.

MLT2809L
Hospital Practicum: Hematology
3.00 credits
A supervised laboratory rotation in a clinical hematology facility. This provides the student an opportunity for the practice of skills previously learned and for the acquisition of new procedural skills. The development of interpersonal skills and the transition from student to professional are emphasized. Prerequisites: MLT 1300, 1300L, 1330, 1330L; corequisite: MLT 2930.

MLT2810L
Hospital Practicum: Chemistry
3.00 credits
A supervised laboratory rotation in a clinical chemistry facility. The development of interpersonal skills the transition from student to professional are emphasized. This provides the student an opportunity for the practice of skills previously learned and for the acquisition of new procedural skills. Prerequisites: MLT 2620, 2620L, 2624L; corequisite: MLT 2930.

MLT2811L
Hospital Practicum: Microbiology
3.00 credits
A supervised laboratory rotation in a clinical microbiology facility. This provides the student an opportunity for the practice of skills previously learned and for the acquisition of new procedural skills. Prerequisites: MLT 2403, 2403L; corequisite: MLT 2930.

MLT2841L
Histotechnology Practicum 2
5.00 credits
This clinical experience will introduce the students to the basic techniques of microtomy, staining and preparation of human tissue for anatomical pathology. Corequisite: MLT 1840L.

MLT2930
Medical Laboratory Technology Seminar
2.00 credits
Clinical correlations, professional issues, updates in Medical Laboratory Technology with student's reports on recent professional journal articles, and the use of microcomputers in the laboratory. Corequisite: MLT 2807L, 2809L, 2810L, 2811L.

MLT2931
Histotechnology Seminar
3.00 credits
This course will prepare students for career entry. Emphasis will be placed on current topics in histotechnology, legal and ethical responsibilities of health care professionals, knowledge of the health care delivery system, including health policies and financing and employability skills. Corequisite: MLT 1840L.

Meteorology

MET1010
Introduction to Weather
3.00 credits
An introduction to fundamentals of weather and their impact on human activities. Topics include temperature, humidity, clouds, precipitation, air masses fronts, and storms. Emphasis is on understanding how these processes take place and their results. Pre/corequisite: PSC 1515.

Military Science

AFR1101
The Foundation of the United States Air Force - Part 1
1.00 credits
This course is designed to show the potential Air Force officer, what role today's Air Force plays in defense of our nation, what role they can fill in today's Air Force, and finally what the Air Force offers them both today and AFROTC and later should they choose the Air Force as a profession after AFROTC.

AFR1111
Introduction to the United States Air Force - Part 3 Sem Basic Air Force ROTC
1.00 credits
This course is designed to examine general aspects of air and space power through a historical perspective. We will cover the time period from the first balloons and dirigibles to the space-age global positioning systems to the Persian Gulf War. Historical examples will be provided to

extrapolate the development of Air Force capabilities and missions to demonstrate the evolution of what has become today's U.S. Air Force air and space power.

AFR2130
The Foundation of the United States Air Force - Part 2
1.00 credits
This course is designed to show the potential Air Force officer, what role today's Air Force plays in defense of our nation, what role they can fill into today's Air Force, and finally what the Air Force offers them both today and AFROTC and later should they choose the Air Force as a profession after AFROTC.

AFR2131
Introduction to the United States Air Force - Part 2
1.00 credits
This course is designed to examine general aspects of air and space power through a historical perspective. We will cover the time period from the first balloons and dirigibles to the space-age global positioning systems to the Persian Gulf War. Historical examples will be provided to extrapolate the development of Air Force capabilities and missions to demonstrate the evolution of what has become today's U.S. Air Force air and space power.

MSL1001
First Year Basic Army ROTC
2.00 credits
Introduction to Army organizations, military customs, basic marching drills, map reading, and land navigation techniques, drown-proofing, rappelling, river crossing techniques, and physical fitness. Physical fitness training and laboratory required.

MSL1002
First Year Basic Army ROTC
2.00 credits
Continues basic leadership training. Additionally introduces students to officer duties, awards and decorations, individual military skills, radio communication procedures and physical fitness. Physical training and lab required.

MSL2101
Second Year Basic Army ROTC
2.00 credits
Instruction in squad and platoon marching drills, military training and inspections, leadership techniques, advanced map reading, and refresher in skills learned at earlier levels. Physical fitness training and lab required.

MSL2102
Second Year Basic Army ROTC
2.00 credits
Continued instruction in drill and ceremony, nuclear, biological and chemical warfare, practical land navigation, orienteering, and introduction to combat troop leading procedures. Physical fitness training and laboratory required.

MSL3201
Leadership and Problem Solving
3.00 credits
This is a leadership & problem solving course for ROTC Cadets. Students will learn to examine skills that underlie effective problem solving, analyze military missions and plan military operations, and execute squad battle drills. Prerequisite: Cadets Eligible to Contract per ROTC Enrollment Officer and/or MAN2021.

MSL3202
Leadership and Ethics
3.00 credits
This course explores leader responsibilities that foster an ethical command climate. Students will learn to develop Cadet Leadership competencies, and apply principles and techniques of effective written and oral communication. Prerequisite: Cadets Eligible to Contract per ROTC Enrollment Officer and/or MAN2021.

Music

MUC1201
Composition 1
2.00 credits
A two semester sequential course introducing the basic elements and construction blocks of a musical composition and analysis. In addition, students will be expected to compose original short pieces as well as have them performed in a composition recital at the end of the semester.

MUC1202
Composition 2
2.00 credits
A two semester sequential course introducing the basic elements and construction blocks of a musical composition and analysis. In addition, students will be expected to compose original short pieces as well as have them performed in a composition recital at the end of the semester.

MUC2101
Composition Skills 3
2.00 credits
This course is a continuance of the composition workshop at a more advanced level. Student's receive private lessons in music composition. Students are encouraged to apply their theoretical skills to a diverse media, including writing for a variety of small ensembles. This will culminate into a mini recital at the end of the term which will also help prepare the student to effectively coordinate and organize performances of his or her own works in front of an academic and general audience. In the process the student learns to work with a variety of performers and appreciate exposure and feedback from a diverse group of people.

MUC2102
Composition Skills 4
2.00 credits
This course is a continuance of Composition Skills 3 at a more advanced level. Students receive private lessons in music composition. Students are encouraged to apply their theoretical skills to a diverse media, including writing for a variety of small ensembles. This will culminate into a mini recital at the end of the term which will also help prepare the student to effectively coordinate and organize performances of his or her own works in front of an academic and general audience. In the process the student learns to work with a variety of performers and appreciate exposure and feedback from a diverse group of people.

MUC2601
Introduction to Songwriting
3.00 credits
This course explores the art and craft of popular songwriting. Students will learn the basics of lyric writing, chord progressions, melodic creation, and structure as they apply to popular song.

MUE1430
Voice Techniques
1.00 credits
Class instruction designed to provide basic performance and teaching skills in voice or instruments from each area.

MUH2111
Survey of Music History 1
3.00 credits
This course introduces the history of musical styles from antiquity through the baroque period and includes works from the western canon. Students will examine the development of music in relation to cultural, historical, and philosophical contexts. Through analysis of musical works and their significance, students will develop critical thinking skills and gain understanding of how music reflects and influences people across time periods.

MUH2112
Survey of Music History 2
3.00 credits
In this course, students will be introduced to the history of musical styles from the baroque period through the present. Through the examination of representative literature, students will explore the evolution of musical styles, genres, and forms, gaining a deeper understanding of the cultural and artistic influences that shaped them. The course will encompass a wide range of musical works, including compositions from the western canon, allowing students to appreciate the richness of musical expression across different periods and regions. Prerequisite: MUH2111. Writing intensive course.

MUL1010
Music Appreciation
3.00 credits
In this course, students will survey the history of classical music from antiquity to the modern period, focusing on Western music. The curriculum may also integrate a variety of popular and global styles where appropriate. Student learning outcomes: students will discuss and analyze music using terminology appropriate for the course; students will demonstrate fundamental knowledge of the works of significant composers; students will identify connections between music and the other arts; and students will identify historical styles and periods based on instruments and performance practices utilized.

MUL2380
Jazz and Popular Music in America
3.00 credits
A survey of the development of popular and jazz music with an emphasis on musical styles and outstanding artists. Writing Intensive Course.

MUM1949
Co-op Work Experience 1: MUM
3.00 credits
This course is designed to provide students with training in their chosen field of study (Sound Engineering or related area) through "on the job" work experience. Students are graded on the basis on documentation of learning acquired as reported by student and employer. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Cooperative Education office to obtain registration approval. Prerequisite: Co-op department approval.

MUM2030
Commercial Music Performance
3.00 credits
A performance experience with concentration on repertoire, style and management of commercial engagements. Includes transposition, harmonization and show reading. Prerequisite: MUT 1112 or permission of instructor. May be repeated for credit.

MUM2600
Sound Recording 1
3.00 credits
An introduction to techniques, practices and procedures in making eight-track recordings. The student will gain experience with acoustical balancing, editing and over-dubbing in a wide variety of sound situations. Corequisite: MUM 2600L.

MUM2600L
Sound Recording 1 Lab
1.00 credits
Participation in MUM 2600L offers students directed "hands on" experience coinciding with lectures in MUM 2600. Corequisite: MUM 2600.

MUM2601
Sound Recording 2
3.00 credits
This course explores advanced multi-track recording skills and audio production techniques. Emphasis is on mixing board skills, microphone techniques, and use of outboard equipment and live 2 track recording. Prerequisite: MUM 2600.

MUM2601L
Sound Recording 2 Lab
1.00 credits
Corequisite for MUM 2601. Advanced Sound Recording. Participation in MUM 2601L offers students directed "hands on" experience paralleling lectures in MUM 2601. Corequisite: MUM 2601.

MUM2604
Multi-Track Mix down Techniques
1.00 credits
This course deals with the application of signal processing gear to multi-track master recording mix down to 2 track stereo mastering machines; includes editing and packaging. Prerequisites: MUM 2600, 2600L.

MUM2605
Multi-Track Production Techniques 1
1.00 credits
Multi-track production technique offers students with a background in multi-track recording an opportunity to sharpen

their skills in recording, mix down editing, and audio production. Prerequisites: MUM 2600, 2600L.

MUM2623C
MIDI Electronic Music 1
2.00 - 3.00 credits
This course is designed to acquaint music students with basic applications of Musical Instrument Digital Interface (MIDI) for the purpose of composition and performance and learning pre-production concepts with multi-track recording studio. Emphasis will be placed on keyboards, outboard gear, drum machines, and computer-assisted operations.

MUM2624C
MIDI-Electronic Music 2
2.00 - 3.00 credits
This course is designed to provide music students further study in the application of the Musical Instrument Digital Interface (MIDI). Emphasis will be placed on advanced techniques in sequencing, routing, synchronization, composition and arranging. Prerequisite: MUM 2623C.

MUM2700
Music Business 1
3.00 credits
The fundamentals, guidelines and the use of copyright law, contracts, agencies and management, publishing, song writing, recording production and marketing. Prerequisite: One year of college-level music study or equivalent. Corequisite: MUM 2703.

MUM2702
Music Business 2-Careers
3.00 credits
A systematic look at career options in the Music Industry. Topics discussed include record promotion, marketing, distribution, music publishing, working in the local music industry, radio and television, film scoring, advertising, "jingle" production, teaching as a business, music merchandising, arts administration, working in the national and international scene, live performance, and recording agreements. Students will develop a written business plan for their own music business enterprise and write their resumes. This course will prepare the student for the Music Business Internship. Corequisite: MUM 2704.

MUM2703
Music Business 3-Computer
3.00 credits
This course will provide an overview, and hands-on experience, with a wide variety of computer-based music technology and cross-platform software applications used within the Music Business environment. Software studies include Microsoft Word (word-processing), Microsoft Excel (spreadsheet), Microsoft PowerPoint (presentation), and Adobe Photoshop (scanning, photo touch-up). Students will present projects in class. Prerequisite: Basic computer experience with the Macintosh and/or Windows 95 operating systems.

MUM2704
Music Business 4-Computer Applications
3.00 credits
This course will provide an overview, and hands-on experience, with computer-based music technology and cross-platform software applications used within the Music Business environment. Software studies include Adobe Photoshop, Adobe PageMaker (page layout), Quicken (financial record keeping), and Adobe Page Mill (Web page development). Students will create their own Web site, useful for promotion and networking in their own Music Business enterprise. Students will present projects in class. Prerequisite: MUM 2703.

MUN1120
Concert Band
1.00 - 3.00 credits
The opportunity for performing concert band literature through participation in the College Band. Emphasis is on music originally composed for bands. It may be repeated for credit.

MUN1210
Symphony Orchestra
1.00 - 3.00 credits
Experience in performing and reading orchestra literature through participation in the College Orchestra. This course is open to all students. May be repeated for credit.

MUN1310
College Choir
1.00 credits
An opportunity for participation in the College Choir. Repertoire includes a wide range of music literature from various periods. This course is open to all students. May be repeated for credit.

MUN1340
Chamber Singers
1.00 credits
An opportunity for talented singers to study and perform the smaller choral works, with special emphasis on the madrigal. This course is open to all students with the permission of the instructor. May be repeated for credit.

MUN1391
Gospel Ensemble
1.00 credits
Provides an opportunity to study and perform music of Black composers with emphasis placed on contemporary gospel idioms. This course is open to all students with the permission of the instructor. May be repeated for credit.

MUN1420
Chamber Music, Woodwind Ensemble
1.00 - 3.00 credits
A performing group introducing students to literature for small woodwind ensembles. Chamber music from Baroque to modern is covered. This course is open to all students with the permission of the instructor. May be repeated for credit.

MUN1430
Chamber Music, Brass Ensemble
1.00 - 3.00 credits
A performing group providing experience with brass literature from the five major periods. This course is open to all students with the permission of the instructor. May be repeated for credit.

MUN1460
Chamber Music, Strings and Mixed Ensemble
1.00 - 3.00 credits
The performance of ensemble literature involving strings or other instruments in combination with strings. Particular attention given to literature of the five major periods. Open to all students with the permission of the instructor. May be repeated for credit.

MUN1480
Guitar Ensemble
1.00 - 3.00 credits
Extended rehearsal schedule provides acquisition of specialized ensemble performance techniques. Literature includes classical and popular. May be repeated for credit or taken for variable (1-3) credit by permission of instructor.

MUN1710
Jazz Workshop
1.00 - 3.00 credits
A course providing the opportunity for performing both modern big-band jazz as well as experience in smaller combo groups. This course is open to all students with permission of the instructor. May be repeated for credit.

MUN1720
Vocal Jazz/Pop Ensemble
1.00 credits
The study and performance of jazz and commercial music for vocal ensemble, including improvisation. May be repeated for credit.

MUN2341
Vocal Ensemble
2.00 - 3.00 credits
An in-depth performance experience including classical and popular choral literature. Extensive public performance schedule provides professional training. Prerequisite: permission of instructor. (May be repeated for credit.)

MUN2410
String Ensemble
2.00 - 3.00 credits
Extended rehearsal schedule provides acquisition of specialized ensemble performance techniques. Literature includes classical and popular. May be repeated for credit. By permission of instructor.

MUN2711
Jazz Ensemble
2.00 - 3.00 credits
A performing group providing advanced skill in reading and interpreting jazz literature. Prerequisite: Permission of instructor. May be repeated for credit.

MUN2712
Studio Jazz
1.00 credits
The class will rehearse standard and original tunes commonly played by small jazz ensembles. The student will develop the basic skills required of a musician performing with such a group, and will develop an understanding of the musical concepts involved in the performance of this style of music. A small ensemble would consist of a rhythm section plus 1-4 horns. The class will perform jazz tunes including, but not limited to, those based on the 12-bar blues form, I Got Rhythm chord changes, II-V-I chord changes, and the modes of major and minor scales. Concepts will include the various approaches to soloing, the use of chord substitutions, chord-scale relationships, playing in correct rhythmic time, and the use of dynamics and rhythmic variation. Group concepts discussed will include rhythm section function, musical interplay between soloist and rhythm section, and the creation of introductions, interludes, and endings. May be repeated for credit.

MUO1501
Opera Workshop
1.00 - 3.00 credits
The study and performance of scenes from standard operas and musical comedies with special attention to the fundamentals of stage movement, acting, and characterization as related to musical production. This course is open to all students. May be repeated for credit.

MUS1211
Diction in Singing 1
2.00 - 3.00 credits
Diction in Singing 1 will introduce the student to the International Phonetic Alphabet and instruct the student to the proper diction for English to the standard Vocal Repertoire. Emphasis will be placed on practical application through actual performances by students of assigned and individually selected songs.

MUS1241
Diction in Singing 2
2.00 - 3.00 credits
Diction in Singing 2 will introduce the student to the International Phonetic Alphabet and instruct the student in the proper diction for Italian in the standard Vocal Repertoire. Emphasis will be placed on practical application through actual performance by students of assigned and individually selected songs. Prerequisite: MUS 2231.

MUT1001
Fundamentals of Music Theory
3.00 credits
Basic music reading, notation, scales, intervals, triads, keys, rhythm, and meter. For students with little or no previous musical experience. Corequisite: MUT 1003.

MUT1003
Fundamentals of Music Theory Lab
1.00 - 3.00 credits
The development of basic aural skills through sight singing and ear training exercises. Corequisite: MUT 1001.

MUT1111
Theory 1
3.00 credits
The techniques of writing four-part chord progressions using root position and inversions of the primary and secondary triads and the dominant and supertonic seventh; also, non-harmonic tones, melodic writing, and an introduction modulation. Prerequisite: MUT 1001 or passing score on departmental placement exam; corequisites: MUT1241.

MUT1112
Theory 2
3.00 credits
The techniques of writing four-part chord progressions using root position and inversions of the primary and secondary triads and the dominant and supertonic seventh; also, non-harmonic tones, melodic writing, and an introduction modulation. Prerequisite: MUT 1111 or passing score on departmental placement exam; corequisites: MUT 1242.

MUT1241
Sight singing & Ear Training 1 Year
1.00 - 2.00 credits
The development of aural skill by means of rhythmic and melodic dictation and sight singing. Prerequisite: MUT 1241 for 1242; corequisites: MUT 1111, 1112.

MUT1242
Sight singing & Ear Training 2 Year
1.00 - 2.00 credits
The development of aural skills by means of rhythmic and melodic dictation and sight singing. Prerequisite: MUT 1241 for 1242; corequisites: MUT 1111, 1112.

MUT2116
Theory 3
3.00 credits
The continuation of modulation and the presentation of diatonic sevenths, secondary dominants, altered chords, augmented and Neapolitan sixths; melodic and harmonic analysis of selected works; ninth, eleventh, and thirteenth chords, and instrumental part writing. Prerequisites: MUT 1112; corequisites: MUT 2246.

MUT2117
Theory 4
3.00 credits
The continuation of modulation and the presentation of diatonic sevenths, secondary dominants, altered chords, augmented and Neapolitan sixths; melodic and harmonic analysis of selected works; ninth, eleventh, and thirteenth chords, and instrumental part writing. Prerequisites: MUT 2116; corequisites: MUT 2247.

MUT2238
Introduction to Jazz Keyboard Harmony
1.00 credits
Jazz harmonic progression as related to music arranging. Includes jazz harmonization of melodic lines, chord symbol interpretation and chord construction. Prerequisite: MVK 1111 or permission of instructor; corequisite: MUT 2351.

MUT2239
Jazz Keyboard Harmony 2
1.00 credits
Experience with extended and altered harmonic progression. Will include harmonic analysis and bitonal structures. Prerequisite: MUT 2238; corequisite: MUT 2352.

MUT2246
Sight singing and Ear Training 1
1.00 - 2.00 credits
Develops aural and visual skills by means of rhythmic, melodic and harmonic dictation and sight singing. Emphasis is on chromatic materials. Prerequisites: MUT 1242 for 2246, MUT 2246 for 2247; corequisites: MUT 2116, 2117.

MUT2247
Sight singing and Ear Training 2
1.00 - 2.00 credits
Develops aural and visual skills by means of rhythmic, melodic and harmonic dictation and sight singing. Emphasis is on chromatic materials. Prerequisites: MUT 1242 for 2246, MUT 2246 for 2247; corequisites: MUT 2116, 2117.

MUT2351
Introduction to Popular Music Arranging
3.00 credits
Provides basic experience with instrumental, ranges, transpositions, two- and three-part writing. Prerequisite: MUT 1112 or permission of instructor; corequisite: MUT 2238.

MUT2352
Popular Music Arranging 2
3.00 credits
A continuation of Introduction to Popular Music Arranging with the addition of four-, five- and six-part writing. Concentration on scoring techniques. Prerequisite: MUT 2351; corequisite: MUT 2239.

MUT2641
Introduction to Jazz Improvisation 1
3.00 credits
A performance experience with concentration on scales, rhythmic patterns, chord progression, and blues forms. Prerequisite: MVK 1111 or permission of instructor; corequisite: MUT 2351.

MUT2642
Jazz Improvisation 2
3.00 credits
A continuation of Introduction to Jazz Improvisation 1 with the introduction to modal improvisation, jazz structures, and complex harmonic progressions. Prerequisite: MUT 2641

MVB1011
Pre-Applied Trumpet
2.00 credits
Private instrumental for those music students who are not prepared to perform at the college music major level. s.

MVB1012
Pre-Applied French Horn
2.00 credits
Private instrumental for those music students who are not prepared to perform at the college music major level. s.

MVB1013
Pre-Applied Trombone
2.00 credits
Private instrumental for those music students who are not prepared to perform at the college music major level. s.

MVB1014
Pre-Applied Tuba
2.00 credits
Private instruction for those music students who are not prepared to perform at the college music major level. s.

MVB1015
Pre-Applied Tuba
2.00 credits
Private instrumental for those music students who are not prepared to perform at the college music major level. s.

MVB1211
Trumpet Secondary Instrument First Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVB1212
French Horn Secondary Instrument First Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVB1213
Trombone Secondary Instrument First Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVB1214
Baritone Horn Secondary Instrument First Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVB1215
Tuba Secondary Instrument First Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVB1311
Trumpet Principal Instrument - First Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVB1312
French Horn Principal Instrument - First Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVB1313
Trombone Principal Instrument - First Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVB1314
Baritone Horn Principal Instrument - First Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVB1315
Tuba Principal Instrument - First Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVB2221
Trumpet - Secondary Instrument Second Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVB2224
Baritone Horn Secondary Instrument Second Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVB2225
Tuba Secondary Instrument Second Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVB2321
Trumpet Principal Instrument Second Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVB2322
French Horn Principal Instrument Second Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVB2323
Trombone Principal Instrument Second Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVB2324
Baritone Horn Principal Instrument Second Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVB2325
Tuba Principal Instrument Second Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ1010
Pre-Applied Jazz Piano
2.00 credits
Private instrumental for those music students who are not prepared to perform at the college music major level.

MVJ1011
Pre-Applied Jazz Voice
2.00 credits
Private instrumental for those music students who are not prepared to perform at the college music major level.

MVJ1013
Pre-Applied Jazz Guitar
2.00 credits
Private instrumental for those music students who are not prepared to perform at the college music major level.

MVJ1014
Pre-Applied Jazz Electric Bass
2.00 credits
Private instrumental for those music students who are not prepared to perform at the college music major level.

MVJ1016
Pre-Applied Jazz Saxophone
2.00 credits
Private instrumental for those music students who are not prepared to perform at the college music major level.

MVJ1017
Pre-Applied Jazz Trumpet
2.00 credits
Private instrumental for those music students who are not prepared to perform at the college music major level.

MVJ1018
Pre-Applied Jazz Trombone
2.00 credits
Private instrumental for those music students who are not prepared to perform at the college music major level.

MVJ1019
Pre-Applied Jazz Percussion
2.00 credits
Private instrumental for those music students who are not prepared to perform at the college music major level.

MVJ1210
Jazz Piano Secondary Instrument First Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ1211
Jazz Voice Secondary Instrument First Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ1212
Jazz Violin Secondary Instrument First Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ1213
Jazz Guitar Secondary Instrument First Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ1214
Electric Bass Secondary Instrument First Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ1215
Jazz Flute Secondary Instrument First Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ1216
Jazz Saxophone Secondary Instrument First Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ1217
Jazz Trumpet Secondary Instrument First Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ1218
Jazz Trombone Secondary Instrument First Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ1219
Jazz Percussion Drum Set Secondary Instrument 1 year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ1310
Jazz Piano Principal Instrument First Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ1311
Jazz Voice Principal Instrument First Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ1313
Jazz Guitar Principal Instrument First Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ1314
Electric Bass Principal Instrument First Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ1315
Jazz Flute Principal Instrument First Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ1316
Jazz Saxophone Principal Instrument First Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ1317
Jazz Trumpet Principal Instrument First Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ1318
Jazz Trombone Principal Instrument First Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ1319
Jazz Percussion Drum Set Principal Instrument First Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ2220
Jazz Piano Secondary Instrument Second Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ2221
Jazz Voice Secondary Instrument Second Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ2222
Jazz Violin Secondary Instrument Second Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ2223
Jazz Guitar Secondary Instrument Second Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ2224
Electric Bass Secondary Instrument Second Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ2225
Jazz Flute Secondary Instrument Second Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ2226
Jazz Saxophone Secondary Instrument Second Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ2229
Jazz Percussion Drum Set Secondary Instrument 2 Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ2320
Jazz Piano Principal Instrument Second Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ2321
Jazz Voice Principal Instrument Second Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ2322
Jazz Violin Principal Instrument Second Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ2323
Jazz Guitar Principal Instrument Second Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ2324
Electric Bass Principal Instrument Second Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ2326
Jazz Saxophone Principal Instrument Second Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ2327
Jazz Trumpet Principal Instrument Second Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ2328
Jazz Trombone Principal Instrument Second Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVJ2329
Jazz Percussion Drum Set Principal Instrument 2 yr.
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVK1011
Pre-Applied Piano
2.00 credits
Private instrumental for those music students who are not prepared to perform at the college music major level.

MVK1012
Pre-Applied Harpsichord
2.00 credits
Private instrumental for those music students who are not prepared to perform at the college music major level.

MVK1013
Pre-Applied Organ
2.00 credits
Private instrumental for those music students who are not prepared to perform at the college music major level.

MVK1111
Class Piano 1
1.00 credits
The secondary area of piano with emphasis on sight-reading, melody harmonization, and ensemble playing. Required of all music students except piano majors. May be repeated for credit.

MVK1112
Class Piano 2
1.00 credits
A continuation of MVK 1111. Prerequisite MVK 1111 or placement by exam.

MVK1211
Piano Secondary Instrument First Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVK1212
Harpsichord Secondary Instrument First Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVK1213
Organ Secondary Instrument First Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVK1311
Piano Principal Instrument First Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVK2121
Class Piano 3
1.00 credits
Further development of elementary keyboard techniques and musicianship, enhancing skills previously developed: Prerequisite MVK 1112 or placement by exam.

MVK2122
Class Piano 4
1.00 credits
A continuation of MVK 2121. Prerequisite MVK 2121 or placement by exam. May be repeated for credit.

MVK2221
Piano Secondary Instrument Second Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVK2222
Harpsichord Secondary Instrument Second Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVK2223
Organ Secondary Instrument Second Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVK2321
Piano Principal Instrument Second Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVK2322
Harpsichord Principal Instrument Second Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVO1214
Recorder Secondary Instrument First Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVP1011
Pre-Applied Percussion
2.00 credits
Private instrumental for those music students who are not prepared to perform at the college music major level.

MVP1211
Percussion Secondary Instrument First Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVP1311
Percussion Principal Instrument First Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVP2221
Percussion Secondary Instrument Second Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVP2321
Percussion Principal Instrument Second Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVS1011
Pre-Applied Violin
2.00 credits
Private instrumental for those music students who are not prepared to perform at the college music major level.

MVS1012
Pre-Applied Viola
2.00 credits
Private instrumental for those music students who are not prepared to perform at the college music major level.

MVS1013
Pre-Applied Cello
2.00 credits
Private instrumental for those music students who are not prepared to perform at the college music major level.

MVS1014
Pre-Applied String Bass
2.00 credits
Private instrumental for those music students who are not prepared to perform at the college music major level.

MVS1015
Pre-Applied Harp
2.00 credits
Private instrumental for those music students who are not prepared to perform at the college music major level.

MVS1016
Pre-Applied Guitar
2.00 credits
Private instrumental for those music students who are not prepared to perform at the college music major level.

MVS1017
Pre-Applied Bass Guitar
2.00 credits
Private instrumental for those music students who are not prepared to perform at the college music major level.

MVS1211
Violin Secondary Instrument First Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVS1212
Viola Secondary Instrument First Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVS1213
Cello Secondary Instrument First Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVS1214
Bass Secondary Instrument First Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVS1216
Guitar Secondary Instrument First Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVS1311
Violin Principal Instrument First Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVS1312
Viola Principal Instrument First Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVS1313
Cello Principal Instrument First Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVS1314
Bass Principal Instrument First Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVS1315
Harp Principal Instrument First Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVS1316
Guitar Principal Instrument First Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVS2223
Cello Secondary Instrument Second Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVS2224
Bass Secondary Instrument Second Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVS2225
Harp Secondary Instrument Second Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVS2226
Guitar Secondary Instrument Second Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVS2321
Violin Principal Instrument Second Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVS2322
Viola Principal Instrument Second Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVS2323
Cello Principal Instrument Second Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVS2324
Bass Principal Instrument Second Year
2.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVS2326
Guitar Principal Instrument Second Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVV1011
Pre-Applied Voice
2.00 credits
Private instrumental for those music students who are not prepared to perform at the college music major level.

MVV1111
Voice Class
1.00 credits
Designed for non-music students providing class instruction in the elective area of voice. Prerequisite: MUE 1430. May be repeated for credit.

MVV1211
Voice Secondary Instrument First Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVV1311
Voice Principal Instrument First Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVV2221
Voice Secondary Instruments Second Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVV2321
Voice Principal Instrument Second Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVW1011
Pre-Applied Flute
2.00 credits
Private instrumental for those music students who are not prepared to perform at the college music major level.

MVW1012
Pre-Applied Oboe
2.00 credits
Private instrumental for those music students who are not prepared to perform at the college music major level.

MVW1013
Pre-Applied Clarinet
2.00 credits
Private instrumental for those music students who are not prepared to perform at the college music major level.

MVW1014
Pre-Applied Bassoon
2.00 credits
Private instrumental for those music students who are not prepared to perform at the college music major level.

MVW1015
Pre-Applied Saxophone
2.00 credits
Private instrumental for those music students who are not prepared to perform at the college music major level.

MVW1211
Flute Secondary Instrument First Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVW1212
Oboe Secondary Instrument First Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVW1213
Clarinet Secondary Instrument First Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVW1215
Saxophone Secondary Instrument First Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVW1311
Flute Principal Instrument First Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVW1312
Oboe Principal Instrument First Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVW1313
Clarinet Principal First Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVW1314
Bassoon Principal Instrument First Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVW1315
Saxophone Principal Instrument First Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVW2221
Flute Secondary Instrument Second Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVW2223
Clarinet Secondary Instrument Second Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVW2224
Bassoon Secondary Instrument Second Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVW2225
Saxophone Secondary Instrument Second Year
1.00 credits
Private instruction in a secondary instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVW2321
Flute Principal Instrument Second Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVW2322
Oboe Principal Instrument Second Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVW2323
Clarinet Principal Instrument Second Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

MVW2325
Saxophone Principal Instrument Second Year
2.00 - 3.00 credits
Private instruction in a principal instrument or voice. Required each term for music majors. Courses in each area must be taken in sequence. Prerequisite: Departmental approval. May be repeated for credit.

Nuclear Medicine

NMT1002L
Introduction to Nuclear Medicine Laboratory
2.00 credit
The student will learn the fundamentals of clinical nuclear medicine before going to the hospital and/or clinical site for actual patient interaction. The student will be introduced to radio-pharmacology, radiopharmaceutical chemistry, and characterization of radiopharmaceuticals, localization, and FDA approval process. Prerequisites: CHM1033, 1033L. Corequisites: NMT 1312C, 1705C, 2613.

NMT1312C
Radiation Protection
2.00 credits
This course covers all local, state and federal regulations related to Nuclear Medicine. Students will learn the appropriate protection procedures to limit exposure, the performance of area surveys and wipe tests, the proper decontamination procedures, the disposal of radioactive waste procedures, and personnel monitoring of radiation exposure. Corequisites: NMT 1002L, 2613.

NMT1705C
Nuclear Medicine Pre-Clinical
2.00 credits
This nuclear medicine technology course prepares students to attend to patients, and evaluate data from patient records, make dose calculations, prepare radiopharmaceuticals, perform in-vivo and in-vitro diagnostic studies, and perform quality control procedures. Prerequisite(s): BSC 2085/L, BSC 2086/L, CHM 1033/L; Corequisite(s): NMT 1002L, NMT 1312C, NMT 2613.

NMT1713C
Nuclear Medicine Procedures 1
2.00 credits
This course will include the imaging parameters necessary to obtain images for the basic procedures performed in a Nuclear Medicine department. Students will learn about imaging procedures related to the following systems: skeletal, central nervous, cardiovascular genitourinary, respiratory and gastrointestinal. Instrumentation necessary to produce the required images as well as patient management during the procedures will be addressed. Prerequisites: BSC 2085, 2085L, 2086, 2086L, CHM1033, 1033L; Corequisites: NMT 2102, NMT 2534C, NMT 2804C.

NMT2102
Nuclear Medicine Administration
1.00 credits
The student will learn the administrative duties required of a nuclear medicine technologist. Areas covered include patient scheduling, radioisotope ordering; scheduling and testing; communication; patient and clinician satisfaction. Prerequisites: NMT 1002L, NMT 1312C, NMT 1705C, NMT 2613; Corequisites: NMT 1713C, NMT 2534C, NMT 2804C.

NMT2130C
Nuclear Medicine Pharmacology
3.00 credits
Students will learn how to maintain radiopharmaceutical laboratory records and materials, obtain a generator equate, prepare radiopharmaceuticals and perform quality control tests, as well as dispose of radioactive waste appropriately. The ordering of pharmaceuticals in appropriate dosage and effective time frames will also be included. Prerequisites: NMT 1002L, NMT 1312C, NMT 1705C, NMT 2613; Corequisites: NMT 2130C, NMT 2723C, NMT 2814C.

NMT2534C
Nuclear Medicine Instruction
2.00 credits
This course will integrate and correlate the principles of electrical and nuclear physics associated with the operation and calibration of radiation detection devices employed in nuclear medicine. The student will learn the various types of devices that are used to provide information from which the diagnostic images are obtained. Prerequisites: NMT 1002L, NMT 1312C, NMT 2613 and PHY1020; Corequisites: NMT 1713C, NMT 2102, NMT 2804C.

NMT2613
Nuclear Medicine Physics and Mathematical Applications
3.00 credits
Students will learn the basic concepts of atomic, nuclear and radiation physics with an emphasis on the interactions of radiation with matter. Alpha, beta, and gamma sources are explained in this course. Prerequisites: MAC 1105, PHY 1004; corequisites: NMT 1002L, 1312C.

NMT2723C
Nuclear Medicine Procedures 2
2.00 credits
A continuation of Nuclear Medicine Procedures 1, students will learn the imaging parameters necessary to obtain images as well as the use of instrumentation necessary to produce the required images performed in a nuclear medicine department. Exposure to patient management during the procedures will also be addressed. Prerequisites: NMT 1713C, NMT 2102, NMT 2534C, NMT 2804C; Corequisite: NMT 2130C, NMT 2814C.

NMT2733C
Nuclear Medicine Methodology 3
2.00 credits
A continuation of Nuclear Medicine Procedures 2, students will learn the imaging parameters necessary to obtain images as well as the use of instrumentation necessary to produce the required images performed in a nuclear medicine department. Exposure to patient management during the procedures will also be addressed. Prerequisite(s): BSC 2085/L, BSC 2086/L, NMT 1713C, NMT 2723C; Corequisite(s): NMT 2779C, NMT 2824C.

NMT2779C
Multi-Modalities and Cross-Sectional Anatomy
2.00 credits
This course educates the student upon proper recognition and interpretation of cross-sectional anatomy. The student will also compare and analyze images from complementary modalities. It is crucial for the nuclear medicine technologist to understand three-dimensional imaging in order to enhance patient care and be an

asset to the facility. Prerequisites:NMT 2130C, NMT 2723C, NMT 2814C; Corequisites:NMT 2733C, NMT 2824C.

NMT2804C
Nuclear Medicine Clinical Education 1
3.00 credits
This course will introduce the student to the fundamentals of clinical nuclear medicine primarily through hospital involvement. The student will learn practical experience in a Nuclear Medicine department by performing the principles taught in class. Prerequisites: NMT 1002L, NMT 1312C, NMT 1705C, NMT 2613; Corequisites: NMT 1713C, NMT 2102, NMT 2534C.

NMT2814C
Nuclear Medicine Clinical Education 2
5.00 credits
This course is a continuation of NMT 2804C Clinic1 and will provide the student the opportunity to participate in the fundamentals of clinical nuclear medicine in the hospital involvement. The student will learn practical experience in a Nuclear Medicine department by performing the principles taught in class. Prerequisites: NMT 2130, 2534C, 2613, 2804C.

NMT2824C
Nuclear Medicine Clinical Education 3
5.00 credits
This is the final course in the series of three clinical courses. Students will learn to apply all didactic competencies in the Nuclear Medicine department setting, as well as perform all procedures from the two Nuclear Medicine Procedures courses with minimal supervision. The ARRT Competency Requirements must be completed in this course. Prerequisites: NMT 2814C.

NMT2834C
Nuclear Medicine Clinical Education 4
5.00 credits
A continuation of Nuclear Medicine Procedures 2, students will learn the imaging parameters necessary to obtain images as well as the use of instrumentation necessary to produce the required images performed in a nuclear medicine department. Exposure to patient management during the procedures will also be addressed.

NMT2932C
Nuclear Medicine Seminar
3.00 credits
The student will learn to incorporate all theory related to the production of a nuclear medicine image. The student will also learn about radiation protection, instrumentation, physics, pharmacology, and Quality Assurance/Quality Control. Prerequisites: NMT 2733C, NMT 2779C, and NMT 2824C; Corequisite: NMT 2834C.

Nursing

NSP3685
End-of-Life Nursing Care
3.00 credits
The purpose of this course is to provide healthcare professionals an overview of End-of-Life palliative and hospice care. Students will learn pain and symptom management, ethical and cultural considerations, assess psychosocial and emotional concerns of the patient and family, and describe the care of the patient during the last hours. Course is restricted to BSN students, requires departmental permission.

NUR1002
Transition to Registered Nursing
2.00 credits
This course introduces the student with selected prior health care experience and education to the profession of nursing, the roles basic to nursing practice, nursing process and the implementation of health-promoting activities to meet patient needs. Prerequisite: Admission to the School of Nursing. Corequisites: NUR 1002L and NUR 1141.

NUR1002L
Transition to Medical Surgical Nursing Clinical Lab
2.00 credits
This lab introduces students with prior health care education to the nursing profession. Students will learn the nurse's role in meeting short and long term needs of the patient through preventive, therapeutic and palliative care. Students will also explore nursing care of the adults with moderate alterations in health within a body systems framework. Prerequisite: Program Admission; Co-requisites: NUR 1002 and NUR 1141.

NUR1006
Health Care Professions to RN Transition
5.00 credits
This course is designed for Medical Assistants, Respiratory Therapist, and Paramedics entering into the Transition program and will introduce the framework of the nursing process to non-nurse health care providers desiring to transition into the role of the registered nurse. Fundamental nursing concepts related to role transition and the introduction of nursing practices will be emphasized along with essential nursing core competencies including the knowledge, skills, and abilities to provide safe nursing practice. This course also provides the opportunity for participants to observe, review and practice in nursing skills in a simulated laboratory setting.Critical Thinking and Clinical Analysis will be introduced along with the Nursing Process. (NUR 1006 is required for LicensedMedical Assistant, Paramedic and/or Respiratory Therapist students only).

NUR1008
Transition to Medical Surgical
5.00 credits
This course introduces students with prior health care education to the nursing profession. Students will learn the nurse's role in meeting short- and long-term needs of the patient through preventive, therapeutic and palliative care. Students will also explore nursing care of the adults with moderate alterations in health within a body systems framework.

NUR1025
Fundamentals of Nursing
3.00 credits
This course introduces students to the profession of Nursing. The student will learn the roles basic to the practice of nursing, the nursing process, and how nurses are involved in health promoting activities to meet client needs.Prerequisite: Program Admission; Co-Requisites: NUR 1025C, NUR 1025L, NUR 1060C and NUR 1141.

NUR1025C
Fundamentals of Nursing Skills Lab
1.00 credits
Students will learn of the opportunities for the explanation, demonstration, and practice of care provider activities essential to the basic practice of nursing. Learning experiences are provided in the skills laboratory. Prerequisite: Program Admission; Corequisites: NUR 1025, NUR 1025L, NUR 1060C and NUR 1141.

NUR1025L
Fundamentals of Nursing Clinical Lab
2.00 credits
Students will learn of the opportunities for the explanation, demonstration, and practice of care provider activities essential to the basic practice of nursing. Learning experiences are provided in the skills laboratory. Prerequisite: Program Admission; Corequisite: NUR 1025, NUR 1025C, NUR 1060C and NUR 1141.

NUR1060C
Adult Health Assessment
3.00 credits
This course is designed to provide students with the necessary skills to perform an in-depth nursing history and a complete physical examination on an adult client. The focus will be on clients with minimal or no alterations in their health state. Students will be introduced to and will demonstrate the techniques used in physical examination. Prerequisite: Admission to the School of Nursing; Corequisites: NUR 1025, NUR 1025C, NUR 1025L and NUR 1141.

NUR1141
Nursing Math & Pharmacology
3.00 credits
Students will learn about medications and their effects on different body systems. The conceptual and mathematical operations necessary for safe and effective administration of intravenous medications, preparing medications that come in powdered form and adjusting medication administration based on medical protocols are discussed. Concepts of medications including history, nomenclature, sources of drug information, federal drug laws and standards, medication classifications, pharmacokinetics, pharmacodynamics, variables affecting medication actions and effects, and methods of delivery will be addressed. Co-requisites: NUR 1025, NUR 1025C, NUR 1025L and NUR 1060C.

NUR1211
Medical-Surgical Nursing
3.00 credits
This course provides an introduction to the adult nursing care. Students will learn the nurse's role in meeting the short and long term needs of the client and community through preventive, therapeutic and palliative care are discussed. Prerequisites: NUR 1025, 1025C, 1060C, 1141; Corequisites: NUR 1211L, 1214C.

NUR1211L
Medical Surgical Nursing Clinical Lab
4.00 credits
Students will learn how to apply concepts of adult health nursing. Experiences in both in-patient and community settings will be provided. Students are encouraged to participate in projects emphasizing preventive aspects of nursing care. Prerequisites: NUR 1025, 1025C, 1025L, 1060C, 1141; Corequisites: NUR 1211, 1214C.

NUR1214C
Medical Surgical Nursing Skills Lab
1.00 credits
Students will learn the opportunities for the explanation, demonstration, and practice of skills related to adult health nursing. Learning experiences are provided in the School of Nursing Skills Laboratory. Prerequisites: NUR 1025, 1025C, 1025L, 1060C, 1141; Corequisites: NUR 1211, 1211L.

NUR2212
Medical-Surgical Nursing III
3.00 credits
This course explores the medical surgical nursing care of clients with complex alterations in health. Students will learn advanced concepts in medical surgical nursing which is discussed within a body systems framework focusing on the nurse's role in meeting the needs of the client, family, and community. Prerequisites: NUR 2310, 2310L, 2420, 2420L, 2680L; corequisites: NUR 2212L.

NUR2212L
Medical-Surgical Nursing Clinical III
2.00 credits
This course provides students with the opportunity to apply advanced concepts of medical surgical nursing. Students will learn to provide health care delivery in both in-patient and community settings. Students will focus on the nurse's role in meeting the needs of the client, family and community. Students are encouraged to actively participate in projects assisting clients in preventive care and maintenance of health. Prerequisites: NUR 2310, 2310L, 2420, 2420L, 2680L; Corequisites: NUR 2212..

NUR2220
Advanced Medical-Surgical Nursing II
3.00 credits
This course provides students with the opportunity to apply concepts of medical surgical nursing. Students will learn to provide health care delivery in both in-patient and community settings. Students will focus on the nurse's role in meeting the needs of the client, family, and community. Students are encouraged to actively participate in projects assisting clients in preventive care and maintenance of health. Prerequisites: NUR 1025, NUR 1025C, NUR 1025L, NUR 1060C, NUR 1141, NUR 1211, NUR 1211L, NUR 1214C; Corequisite: NUR 2220L

NUR2220L
Advanced Medical-Surgical Nursing Clinical II
1.00 credits
This course provides students with the opportunity to apply concepts of medical surgical nursing. Students will learn to provide health care delivery in both in-patient and community settings. Students will focus on the nurse's role in meeting the needs of the client, family, and community. Students are encouraged to actively participate in projects assisting clients in preventive care and maintenance of health. Prerequisites: NUR 1025, NUR 1025C, NUR 1025L, NUR 1060C, NUR 1141, NUR 1211, NUR 1211L, NUR 1214C; Corequisite: NUR 2220

NUR2310
Pediatric Nursing
2.00 credits
This course provides a family centered approach to the nursing care of pediatric clients and their families. Students will learn the nurse's role in meeting the short and long term needs of the pediatric client, family, and community through preventative, therapeutic and palliative care, with recognition for the multicultural aspects of client needs. Prerequisites: 1211, 1211L, 1214C or 1002, 1002L; 1141; Corequisites: NUR 2310L, 2420, 2420L, 2680L.

NUR2310L
Pediatric Nursing Clinical Lab
1.00 credits
This course allows the student to apply the nursing process to the care of clients in selected pediatric clinical set- tings. Students will learn to observe cultural diversity and implement care to the pediatric client, family, and community through preventive, therapeutic and palliative measures. Prerequisites: NUR 1211, 1211L, 1214C or 1002, 1002L; 1141. Corequisites: NUR 2310, 2420, 2420L, 2680L.

NUR2420
Obstetrical Nursing
2.00 credits
This course provides a family centered approach to the nursing care of obstetrical clients and their families. Students will learn to assess the pregnant client, to implement caring behaviors for the laboring client, educate the postpartum client, and manage the care of the newborn and collaboration of care for the high risk client. Prerequisites: NUR1211, 1211L, 1214C or 1002, 1002L, 1141. Corequisites: NUR 2310, 2310L, 2420L, 2680L.

NUR2420L
Obstetrical Nursing Clinical Lab
1.00 credits
This course provides an introduction to obstetrical nursing clinical practice. Students will learn to apply the nursing process to the care of clients in selected obstetrical clinical settings. Prerequisites: NUR 1211, 1211L, 1214C or 1002, 1002L, 1141; Corequisites: NUR 2310, 2310L, 2420, 2680L.

NUR2520
Psychiatric Nursing
2.00 credits
This course introduces students to the basic concepts of psychiatric nursing. Students will learn to provide care in in-patient and community settings, focusing on the nurse's role in meeting the needs of the patient, family, and the community. Prerequisites: NUR 1211, 1211L, 1214C or 1002, 1002L, 1141; Co-requisites: NUR 2520L.

NUR2520L
Psychiatric Nursing Clinical Lab
2.00 credits
This course provides the student opportunities to apply concepts of psychiatric nursing. Students will learn psychiatric procedures for both in-patient and community settings, focusing on the nurse's role on meeting the needs of the client, family, and community. Students actively participate in projects assisting clients in preventative care and maintenance of mental health. Prerequisites: NUR 1211, 1211L, 1214C or 1002, 1002L, 1141; Corequisites: NUR 2520.

NUR2680L
Community Health Nursing Lab
1.00 credits
This laboratory course assists the students in applying knowledge of community health resources. Students will learn to manage community health resources to support the delivery of care to the childbearing/child-rearing families. Special emphasis is placed on the understanding of cultural influences on the health practices and beliefs within the family. Prerequisites: NUR 1211, 1211L, 1214C or 1002, 1002L; Corequisites: NUR 2310, 2310L, 2420, 2420L.0L.

NUR2811C
Professional Nursing Leadership
4.00 credits
This course provides the student with the theoretical and clinical knowledge necessary for actualization of the role of the registered professional nurse. Students will learn how to apply the role of the registered nurse with emphasis on delegation and supervision. Prerequisites: NUR 2310, 2310L, 2420, 2420L, 2680L.

NUR2960
Senior Seminar
1.00 credits
This course provides a forum for the discussion, and preparation for the NCLEX-RN exam. Explain applicant requirements for the state board of nursing (and licensure eligibility requirements) and examination registration. Co-requisites: NUR 2811C

NUR3069
Advanced Health Assessment
3.00 credits
This course will focus on the assessment of individuals, families, and culturally diverse communities throughout the life span. The course will also include relevant theories, evidenced based practice concepts for the comprehensive assessment and management of health throughout the family life cycle. The course includes lecture, discussion and demonstration of history-taking and an integrated physical assessment. Minimum grade of "C" or better required. Corequisite NUR 3846.

NUR3125
Pathophysiology in Nursing Practice
3.00 credits
This course builds upon prior knowledge in assessment, management of patients with commonly occurring diseases, and

evaluation patient outcomes. The course will integrate the principles and rationales of pathophysiology at the cellular and systemic level using the nursing process. It will provide an in-depth theoretical and clinical principles of diseases encountered in healthcare settings. Health disparities resulting from social determinants of health, genetics, and stress related causes will also be explored.

NUR3165
Nursing Research
3.00 credits

This course provides a basic understanding of the steps and processes of qualitative and quantitative nursing research, with an emphasis on the development of the basic skills of analyzing research findings and how they can be incorporated and applied to clinical practice. Ethical and theoretical issues will be discussed. Minimum grade of "C" or better required. Prerequisite: Admission to the program.

NUR3178
Complementary and Alternative Health Care
3.00 credits

This is an upper division course in complementary and alternative healthcare. Students will learn holistic aspects of care while evaluating complementary and alternative healthcare in diverse populations across the lifespan and around the globe. The course addresses different complementary and alternative treatment practices through evidence-based research.

NUR3289
Foundations of Gerontology
3.00 credits

This course focuses on the special healthcare needs of the geriatric population. Students will learn the physical, physiological, psychosocial and gero-pharmacologic implications related to aging. The trends in the changing demographics and the social consequences of aging will be identified. Established geriatric assessment and evaluative tools will also be discussed. Prerequisite: Admission to the BSN - RN program N9100.

NUR3674
Faith Based Community Nursing
3.00 credits

This course will provide education in faith-based community nursing to registered nurses. Students will learn the skills needed to integrate the care of mind, body, and spirit in faith-based communities. The intentional care of the spirit is part of the process in preventing and minimizing illness in a faith- based community. Prerequisite: RN with at least 2 years of experience and baccalaureate degree standing. Departmental permission required.

NUR3805
Transition to Professional Nursing
3.00 credits

This course focuses on the transition of nursing students from an associate degree program to the role of the BSN nursing graduate. The BSN role builds on concepts and experiences previously introduced. The history and evolution of the nursing profession, ethical imperatives, and current trends and issues impacting professional practice in an evolving healthcare delivery environment are foundations for the development of the professional nurse. The role of the BSN prepared graduate focuses on utilization of evidenced-based nursing practices and advanced leadership and management skills in a variety of settings within a global community. Minimum grade of "C" or better required.

NUR4146
Pharmacology for Nursing
3.00 credits

This course is designed for the RN – BSN student and builds on the prior knowledge of entry level registered nurses.The focus is on the pharmacological treatment of various illnesses in diverse individuals across the lifespan. The emphasis is on the principles of pharmacokinetics, pharmacodynamics and pharmacogenetics in the safe treatment of selected illnesses.

NUR4636
Community Health Nursing
3.00 credits

This course focuses on the holistic aspects of community nursing care applied to diverse global populations across the lifespan. The course introduces students to community nursing practice and formulates a paradigm shift from individual patient's to the global community, addressing the history, evolution, theoretical framework, and purpose of community health nursing practice with an introduction to epidemiological principles, concepts of community assessment, health promotion, maintenance and education. The course involves the analysis of current knowledge and practice to illness prevention, health promotion, health restoration, community education and empowerment. Minimum grade of "C" or better required. Prerequisite: NUR 3069, 3805; corequisite: NUR 4636L.

NUR4636L
Community Health Nursing Practicum
3.00 credits

This course focuses on the clinical application of Community Health Nursing Theory. Students will utilize the nursing process in the delivery of healthcare within the community environment. Students will assess the individual, family, and/or community, develop a plan of care, and deliver care to anindividual, family and/or community within a multicultural environment. Minimum grade of "C" or better required. Corequisite: NUR 4636.

NUR4667
Globalization of Nursing Practice
3.00 credits

This course focuses on world health issues that influence international health practices with an emphasis on preparing the professional nurse to become a major contributor to the international healthcare team. The course will include economic, political, social, and demographic issues that affect health care systems of select countries and address the role of nurses in the delivery of global health care.

Minimum grade of "C" or better required Prerequisite: NUR 3069, 3805; corequisite: NUR 4827.

NUR4827
Leadership and Management Theory
3.00 credits
This is an introductory course to leadership and management concepts and theories needed in today's health care environment. The course focuses on unique and innovative approaches to delegation, decision-making, budgeting, quality improvement, evidence-based practice, and population-based practice. Minimum grade of "C" or better required. Corequisite: NUR 4667.

NUR4945C
Advanced Concepts Practicum
3.00 credits
This course is a capstone of prior learning, including evidenced-based interventions, theoretical concepts, and critical thinking skills, with an emphasis on the application to professional nursing practice. The focus is on multicultural populations which are experiencing physical, psychological, social, or spiritual imbalances. The student, working with a preceptor, will facilitate the delivery of health care to diverse cultures in various specialized settings. Prerequisites: Minimum grade of "C" or better required, NUR 4636, NUR 4667.

Nutrition

HUN1201
Essentials of Human Nutrition
3.00 credits
The Essentials of Human Nutrition is a general education course designed to acquaint students with the specific role of carbohydrates, fats, proteins, vitamins, minerals, and water in daily life. Students will learn how the human body systems manage the breakdown, assimilation, and excretion of nutrients and their metabolic wastes. Students will also learn the relationships between food and optimal health including physical fitness and the relationships between nutritional imbalances and diseases.

Oceanography

OCE1001
Introduction to Oceanography
3.00 credits
Using the scientific method, critical thinking skills, and data analysis, this course will examine the fundamental processes of the ocean system, composed of an atmosphere, hydrosphere, lithosphere, and biosphere, through time. The course will also explore interactions between these spheres, including critical analysis of scientific theories and emphasize oceanic connections with humanity. Student learning outcomes: students will use critical thinking to recognize the rigorous standards of scientific theories; students will analyze and synthesize oceanographic data to draw scientifically valid conclusions; students will recognize the different time scales associated with different ocean processes; students will describe interactions between humans and the ocean realm; and students will apply their understanding of oceanographic principles to various marine issues.

Office Technology

OST2335
Business Writing
3.00 credits
Covers the procedures for writing effective business letters and memorandums, a review of grammar, and the proper format of today's business correspondence. Students learn how to prepare inquiry letters, direct and indirect response letters, application letters and resumes, and short reports.

Paralegal

PLA1949
Paralegal Studies Practicum
3.00 credits
This is a course designed to continue training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval. Prerequisite: 2.0 GPA, approval of Co-op Director, and a minimum of 6 credits in field or approved work experience.

PLA2003
Fundamentals of Law
3.00 credits
This course provides students with an overview of the American legal system. It explores the basic concepts of law in society including the different sources of law. The federal, state and county court systems are examined along with judicial interpretation of the law. The course also covers the distinctions between procedural and substantive law, civil versus criminal and a court of equity and a court of law. The roles of paralegals are discussed with an emphasis given in their professional relationships, functions, career opportunities and ethical obligations. Prerequisite: ENC 1101. Corequisites: LCO 0999 and PLA 2931.

PLA2114
Legal Writing
3.00 credits
This course provides knowledge and understanding of how to present legal research and analysis in proper written format. As legal research is an integral part of legal writing, the course will reinforce the skills used in legal research. It will also cover basic writing skills, the process of legal analysis, methodology involved in drafting a Memorandum of law, practice in drafting pleadings, and various types of specific law office correspondence. Courses must be met with a grade of "C" or higher. Prerequisites: ENC 1101, PLA 2003, PLA 2120C, and PLA 2931.

PLA2120C
Legal Research and Analysis
4.00 credits
Legal Research and Analysis is an introduction to the legal system, the law library system, the ethical responsibilities and

skills of a paralegal when conducting research for primary and secondary sources of law in the United States. Students must earn a minimum of a C to pass this course.Pre-requisite: Satisfactory completion of all mandated courses in reading, English and English for Academic Purposes, or ENC1101, and Pre/Co-Requisite: PLA 2003 and PLA 2931 with a grade of C or better; or departmental approval for non-Paralegal Studies majors.

PLA2227
Civil Law and Litigation
3.00 credits

This course will introduce students to a comprehensive exploration of civil procedure, pleadings, evidence, motions, damages, appeals, and alternative dispute resolution.Students will gain skills in the application of law when preparing documents before, during and post-trial. A minimum of a C is required to pass this course.Prerequisites: ENC 1101, PLA 2003, PLA 2120C, and PLA 2931.

PLA2273
Torts
3.00 credits

This course provides an examination of the theories governing tort law and the use of various pre-litigation tools. Topics covered include intentional torts, negligence and strict liability. The course also requires students to utilize the knowledge obtained to draft documents employed in practice. Courses must be met with a grade of "C" or higher. Prerequisites: ENC 1101, PLA 2003, PLA 2120C, PLA 2227, and PLA 2931.

PLA2303
Criminal Law & Litigation
3.00 credits

This course focuses on the substantive areas of criminal law including the offenses, elements, defenses and parties to a criminal law proceeding. It also emphasizes the role of the criminal justice system in adjudicating, enforcing and sentencing criminal defendants. It examines the Florida Rules of Criminal Procedure and provides practice in drafting documents required in the conduct of a criminal trial. Courses must be met with a grade of "C" or higher. Prerequisites: ENC 1101, PLA 2003, PLA 2120C, 2227, and 2931.

PLA2600
Wills, Trust, Estate
3.00 credits

Wills, Trusts, and Estates is a study of the laws governing wills and interstate succession. The course provides practice in drafting a simple will and trust. It also examines the procedures and rules involved in probate administrations and explains the ethical obligations of attorneys and paralegals who are involved in this area of practice. Courses must be met with a grade of "C" or higher. Prerequisites: PLA 2114 and REE 2040.

PLA2610
Introduction to Real Property
3.00 credits

This is an introductory course that provides an overview of the general concepts of real property law applied in most states, including substantive legal issues, ownership, terms and various legal forms, the mechanics of various residential, some commercial transactions, and mortgage foreclosures. Prerequisites: REE 2040 with a grade of C or better; Corequisite: PLA 2631C.

PLA2631C
Real Estate Transactions and Settlement
4.00 credits

This course is a combination of both class lecture and lab. The lecture segment includes an overview of intermediate real estate law topics with a specific emphasis on Florida real estate transactions. Students who complete this course will understand the fundamental concepts and sequences followed in a real estate transaction from initial contract review, through settlement (closing). The lab segment is transaction and problem-oriented. This segment trains students in the use of the industry settlement software to complete title examinations, updates, issuance of title policies & endorsements, and various federal and state regulations that affect real estate settlements. Students may also perform various duties typically assigned to a paralegal in a real estate transaction. Prerequisites: ENC 1101, PLA 2003, REE 2040, PLA 2610, PLA 2931 with a grade of C or better.

PLA2704
Professionalism and Civility in the Law
3.00 credits

This class will provide students guidance as they interact in a real-world setting as legal professionals while strengthening their communication skills. This course will cultivate the students' leadership capacities at the intra-personal, interpersonal, and industry levels. The coursework will proceed through experiential learning that is grounded in theory and includes reflection. The study material will develop students' knowledge in the context of the aspiration, relational, and practical aspects of professionalism and civility in the legal field. Students must earn a grade of C or better to pass this course.

PLA2736
Electronic Discovery, Investigations, and Evidence
3.00 credits

This course will examine the electronic discovery (e-discovery) process primarily following the 9 stages of the Electronic Discovery Reference Model (EDRM). It will include analysis of e-discovery case law including past and current cases; the Federal Rules of Civil Procedure related to e-discovery; different types of e-discovery including litigation, government investigations, and internal audits; and ethical issues related to e-discovery. Additionally, it will have a practical aspect that will teach e-discovery skills related to e-discovery technology, including review platforms. Students must earn a grade of C or better to pass this course. Pre/Co-Requisite: PLA 2227; Recommendation: Successful completion of CGS1060C.

PLA2763
Law Office Management
3.00 credits
A survey of economical and efficient law office practices and procedures including the proper use of law office equipment; business data processing law office management, personnel selection, training and management; employer/employee relationships; correct utilization of time and space; correct time keeping and billing procedures. Courses must be met with a grade of "C" or higher. Prerequisites: PLA 2003 or PLA 2705.

PLA2800
Family Law
3.00 credits
An examination of the legal aspects of domestic relations. This course focuses upon dissolution of marriage law with emphasis on pleadings, discovery, and property settlements. Other areas of family law such as adoption and annulment will be reviewed. Courses must be met with a grade of "C" or higher. Prerequisites: ENC 1101, PLA 2003, 2106C, 2114, 2227, 2931.

PLA2890
Human Rights Law & Procedure
3.00 credits
This course will address theoretical and practical questions the evolution and development of the laws addressing international human rights issues. Emphasis will be placed on the core issues, debates, struggles, failures, and successes of legal claims. Students must earn a grade of C or better to pass this course. Prerequisites:ENC 1101 and PLA 2120C.

PLA2930
Special topics in Law
1-3 Variable Credits
This course will explore a selection of emerging trends in the law. May be repeated for credit. Students must earn a grade of C or better to pass this course.

PLA2931
Legal Seminar: Ethics
1.00 credits
Intensive practical and theoretical training is provided in a seminar format. The seminar topics cover current and timely legal issues and are addressed by practicing attorneys. The topics are announced at the beginning of the fall and winter semesters. Corequisite: PLA 2003, LCO 0999 with a grade of "C" or better.

PLA2933
Legal Seminar: Real Estate Closing
1.00 credits
Intensive practical and theoretical training is provided in a seminar format. The seminar topics cover current and timely legal issues and are addressed by practicing attorneys. The topics are announced at the beginning of the fall and winter semesters. Prerequisite:REE 2040 with a grade of "C" or better.

PLA2934
Legal Seminar: Immigration Law
1.00 credits
Intensive practical and theoretical training is provided in a seminar format. The seminar topics cover current and timely legal issues and are addressed by practicing attorneys. The topics are announced at the beginning of the fall and winter semesters. Courses must be met with a grade of "C" or higher.

PLA2935
Legal Seminar: Intellectual Property Law
1.00 credits
Intensive practical and theoretical training is provided in a seminar format. The seminar topics cover current and timely legal issues and are addressed by practicing attorneys. The topics are announced at the beginning of the fall and winter semesters. Courses must be met with a grade of "C" or higher.

PLA2940
Paralegal Studies Internship
1.00 - 3.00 credits
Prerequisite: Permission of the Program Director.

Philosophy and Logic

PHI1100
Introduction to Logic
3.00 credits
This course serves as a solid foundation for the study of philosophy, focusing on both the fundamental principles of valid reasoning and the exploration of the Western canon. Students will delve into the rich tradition of philosophical thought, honing their analytical skills through the application of various techniques.

PHI2010
Introduction to Philosophy
3.00 credits
In this course, students will be introduced to the nature of philosophy, philosophical thinking, major intellectual movements in the history of philosophy, including topics from the western philosophical tradition, and various problems in philosophy. Students will strengthen their intellectual skills, become more effective learners, and develop broad foundational knowledge. Student learning outcomes: students will develop critical thinking skills; students will demonstrate an understanding of classical western philosophical views; and students will analyze, explain, and evaluate foundational concepts of epistemology, metaphysics, and ethics. Writing Intensive Course.

PHI2070
Introduction to Eastern Philosophy
3.00 credits
This is a foundation course in philosophy. Students will learn various philosophies of the East. Philosophers from various traditions such as Buddhism, Confucianism, Hinduism and Taoism will be discussed and analyzed.

PHI2600
Introduction to Ethics
3 credits
This course provides students with an understanding of ethics and morality and includes works from the western canon. Students will evaluate ethical theories and apply them to classical and contemporary issues, exploring the intersection

of ethics with aspects of human development, including literature, history, and art. Through this process, students will develop critical thinking skills and gain understanding of how ethical reasoning shaped and influences human thought and behavior. Writing intensive course.

PHI2604
Critical Thinking and Ethics
3.00 credits
This is a foundation course in philosophy. Students will learn critical thinking skills and will study major theories of ethics. Students will use methods of effective reasoning to reflect critically upon their values, ethical standards, and the ethical permissibility of topics such as euthanasia, animal rights, and environmental ethics. Prerequisite: ENC 1101

PHI2680
Artificial Intelligence and Ethics
3.00 credits
This course acquaints students with ethics as relevant to the design, implementation, and administration of artificial intelligence and emerging technologies. It will explore issues such as the biases of algorithms, autonomous warfare, the risks of surveillance technologies, and the effects of technologies on employment. In addition, this course will also delve into the critical examination of the Western canon's influence on the development and ethical implications of artificial intelligence and emerging technologies.

Photography

PGY2110C
Color Photography 1
3.00 - 4.00 credits
An introductory course in the making of Type C photographic prints, including the darkroom techniques of developing color film, color filtering, color balance and density control. There will be an exploration of significant contributions to the aesthetics of color photography. Students must provide their own cameras, film and photographic paper. Prerequisite: PGY 2401C.

PGY2111C
Color Photography 2
4.00 credits
Deals primarily with printing methods used in printing color negatives. Concentrated practice is given in light, color balancing, exposure and processing of color printing materials; the techniques of producing matched multi-size prints are demonstrated. Prerequisite: PGY 2110C.

PGY2112C
Color Photography 3
4.00 credits
An introduction to the use of the view camera to explore the problems of form and content in large format color photography. View camera will be provided.

PGY2211
Portrait and Still Photography
4.00 credits
Fundamentals of portrait and still photography are presented. Basic and advanced exercises are taught in lighting, posing, make-up and camera angles. Composition, lighting and design functioning to describe people and objects for a variety of clients are explored. Prerequisite: PGY 2410C.

PGY2222
Fashion Photography
4.00 credits
The production of commercially viable photographs illustrating clothes as desirable objects as well as recent trends in fashion industry are studied. An awareness of mood, make-up, and dramatic impact is stressed.

PGY2238
Illustrative Photography 1
4.00 credits
The use of the camera to illustrate either an original concept or a concept provided by an art director for clients such as magazines, manufacturing concerns, advertising agents, newspapers, technical publications and schools. The creative approach is stressed in planning and production-effective color and black/white illustrations. Prerequisite: PGY 2410C.

PGY2239
Illustrative Photography 2
4.00 credits
A sophisticated level of photographic illustration is reached, and emphasis is given to conceptual and visual continuity. Concepts, methods and techniques necessary to produce slide presentations for variety of clients are stressed. Seminars and conferences prepare students for the business aspects of the illustration and advertising markets. Prerequisite: PGY 2221.

PGY2401C
Introduction to Photography
3.00 - 4.00 credits
Fundamentals of black and white photography as an art medium with emphasis on composition, design and processing. Students will supply their own camera, film and paper. Prerequisites: ART 1203C, 1300C, or equivalent.

PGY2404C
Intermediate Photography
3.00 - 4.00 credits
Emphasis on achieving more technical control of black and white photography with introduction to larger format photography utilization of studio aspects such as strobe, quartz lighting and view camera controls continued development of aesthetics. Corequisite: PGY 2401C.

PGY2470C
Portfolio Preparation
3.00 - 4.00 credits
Provides graduating students individual guidance and direction in the preparation of their portfolios. Emphasis is given to the realization of new photographic images. Prerequisite: PGY 2111C, 2210, 2221, 2222.

PGY2475
Advanced Photography
3.00 - 4.00 credits
The production of advanced portfolio in black and white or color, while emphasizing photography as a studio area in art. A continuation in the development of both technical and aesthetic concerns for the art student majoring in photography. Prerequisite: PGY 2404C.

PGY2800C
Digital Photography
4.00 credits
This course is an introduction to the practice of documentary digital photography. Students will learn basic digital camera skills, imaging software, and printing and critiques. Prerequisites: ART 1205C, 1300C, and PGY 2401C. May be repeated for credit.

Physical Education

HLP1081
Fitness & Wellness for Life
3.00 credits
In this course students will learn the roles of exercise, physical activity, diet, and stress management in achieving optimal wellness. Students will explore current developments in health and complete lab assignments, which will assist in the determination of their current health status. Individualized exercise and dietary protocols based on these assessments will be developed.

Physical Therapist Assistant

PHT1102C
Anatomy for the Physical Therapist Assistant
4.00 credits
This is a combination course that includes lecture and laboratory.Students learn regional description of human anatomy with emphasis on the structure and function of the musculoskeletal and neurological system, surface anatomy, palpation, and clinical correlations relevant to physical therapy practice.The origin, insertion, action, and innervations of major muscles are emphasized.The laboratory component provides students an immersive experience utilizing a variety of learning tools including computer-assisted learning (CAL) and state of the art anatomy models.Students identify bony landmarks, major muscles, and soft tissue. They are introduced to palpation skills and surface anatomy. Prerequisites: BSC 2085, BSC 2085L, PHY 1004, PHY 1004L, Corequisites:PHT 1201, PHT 1201L, PHT 1211, PHT 1211L.

PHT1201
Introduction to Physical Therapy
2.00 credits
This course introduces students to the survey and history of the physical therapy profession.The role and responsibilities of the physical therapist assistant as they interact with patients and other health care workers are discussed. It incorporates discussion on legal and ethical issues, levels of supervision, and the medical record. An overview of common pathologies is presented. Prerequisites: BSC 2085, BSC 2085L, PHY 1004, PHY 1004L; Corequisites: PHT 1102C, PHT 1201L, PHT 1211, PHT 1211L.

PHT1201L
Introduction to Physical Therapy Laboratory
1.00 credits
Laboratory course for PHT1201 Introduction to Physical Therapy. This course includes laboratory practice for basic patient care skills and treatment procedures including body mechanics, vital signs, transfers, gait training, ROM, flexibility, manual resistance.Case scenarios to identify proper transfer techniques and gait training patterns are utilized.Principles of effective documentation and data collection are introduced. Prerequisites: BSC 2085, BSC 2085L, PHY 1004, PHY 1004L; Corequisites: PHT 1102C, PHT 1201, PHT 1211, PHT 1211L.

PHT1211
Disabilities and Therapeutic Procedures 1
2.00 credits
This course introduces theory and practical applications of physical therapy biophysical agents. The physiologic effects, indications, contraindications, and intervention parameters of patient care interventions including electrotherapeutic agents, compression therapies, cryotherapy, hydrotherapy, superficial and deep thermal agents, traction, and therapeutic massage are presented. Prerequisites: BSC 2085, BSC 2085L, PHY 1004, PHY 1004L; Corequisites: PHT 1102C, PHT 1201, PHT 1201L, PHT 1211L.

PHT1211L
Disabilities and Therapeutic Procedures 1 Lab
2.00 credits
Laboratory course for PHT1211 Disabilities and Therapeutic Procedures 1. This course includes laboratory practice of technical skills relating to practical applications of physical therapy biophysical agents including electrotherapeutic agents, compression therapies, cryotherapy, hydrotherapy, superficial and deep thermal agents, and traction.Students develop basic skills in therapeutic massage. Practical application of each intervention is emphasized. Prerequisites: BSC 2085, BSC 2085L, PHY 1004, PHY 1004L; Corequisites: PHT 1102C, 1201, 1201L, 1211.

PHT2120
Applied Kinesiology
2.00 credits
Students learn concepts and principles of applied kinesiology and biomechanics with emphasis on the function of the musculoskeletal system as it pertains to human motion.Anatomical structures and movement concepts covered in PHT 1102C Anatomy for PTA are expanded upon. Goniometric measurement, manual muscle testing skills, plumb-line analysis, data collection skills, palpation skills, understanding of special tests, and concepts of reliability and validity as it relates to goniometry are emphasized. Prerequisites: BSC 2086, BSC 2086L, PHT 1102C, PHT 1201, PHT 1201L, PHT 1211, PHT 1211L; Corequisites: PHT 2120L, PHT 2224, PHT 2224L, PHT 2801C.

PHT2120L
Applied Kinesiology Laboratory
1.00 credits
Laboratory course for PHT 2120 Applied Kinesiology. This course provides laboratory practice of technical skills relating to practical applications of foundational concepts and principles pertaining to Applied Kinesiology. Students learn goniometric measurement, manual muscle testing skills, plumb-line analysis, palpation skills,

data collection, and develop an understanding of special tests. Prerequisites: BSC 2086, BSC 2086L, PHT 1102C, PHT 1201, PHT 1201L, PHT 1211, PHT 1211L; Corequisites: PHT 2120, PHT 2224, PHT 2224L, PHT 2801C.

PHT2162
Survey of Neurological Deficits
3.00 credits
This course introduces the etiology, pathophysiology, and clinical manifestations of common neurological diseases/conditions treated in physical therapy.Neuroanatomy of the central and peripheral nervous system is reviewed. Reflex integration as well as normal growth and development are discussed.Students have an end of course project-based topic assignment that pertains to commonly seen neurological conditions in physical therapy. Prerequisites: PHT 2120, PHT 2120L, PHT 2224, PHT 2224L, PHT 2801C; Corequisites: PHT 2701, PHT 2701L, PHT 2810.

PHT2224
Disabilities and Therapeutic Procedures 2
3.00 credits
This course introduces foundational concepts and principles pertaining to therapeutic exercise prescription and interventions for the upper and lower extremity, spine, and Women's Health across the lifespan and continuum of care. Applied science of exercise and techniques, exercise interventions by body region, peripheral joint mobilization, and medical and surgical procedures and protocols are emphasized. Students engage in active and collaborative learning and utilize case scenarios for practical application. Prerequisites: BSC 2086, BSC 2086L, PHT 1102C, PHT 1201, PHT 1201L, PHT 1211, PHT 1211L; Corequisites: PHT 2120, PHT 2120L, PHT 2224L, PHT 2801C.

PHT2224L
Disabilities and Therapeutic Procedures 2 Lab
2.00 credits
Laboratory course for PHT 2224 Disabilities and Therapeutic Procedures 2. This course is designed to provide students with technical skill practice and application of foundational concepts and principles pertaining to therapeutic exercise prescription and interventions for the upper and lower extremity, spine, and Women's Health across the lifespan and continuum of care. Students apply exercise and therapeutic interventions by body region, practice documentation, prescribe home exercise programs, and are introduced to peripheral joint mobilization for the upper and lower extremities. Prerequisites: BSC 2086, BSC 2086L, PHT 1102C, PHT 1201, PHT 1201L, PHT 1211, PHT 1211L; Corequisites: PHT 2120, PHT 2120L, PHT 2224, PHT 2801C.

PHT2701
Rehabilitation Procedures
3.00 credits
This course presents treatment techniques related to physical therapy interventions and rehabilitation concepts and principles for neurological and other medical conditions across the lifespan and continuum of care. Prerequisites: PHT 2120, PHT 2120L, PHT 2224, PHT 2224L, PHT 2801C; Corequisites: PHT 2162, PHT 2701L, PHT 2810.

PHT2701L
Rehabilitation Procedures Laboratory
2.00 credits
Laboratory course for PHT 2701 Rehabilitation Procedures.This course provides laboratory practice of technical skills relating to physical therapy interventions and rehabilitation concepts and principles for neurological and other medical conditions across the lifespan and continuum of care. Prerequisites: PHT 2120, PHT 2120L, PHT 2224, PHT 2224L, PHT 2801C; Corequisites: PHT 2162, PHT 2701, PHT 2810.

PHT2801C
Clinical Practice and Conference I
2.00 credits
The students will be exposed to clinical experiences in supervised patient care activities in a variety of clinical facilities including general hospitals and physical therapy clinics. Prerequisites: BSC 2086, BSC 2086L, PHT 1102C, PHT 1201, PHT 1201L, PHT 1211, PHT 1211L; Corequisites: PHT 2120, PHT 2120L, PHT 2224, PHT 2224L.

PHT2810
Clinical Practice and Conference II
7.00 credits
Intermediate clinical experiences in selected patient care activities under the supervision of a licensed physical therapist.
Prerequisites: PHT 2120, PHT 2120L, PHT 2224, PHT 2224L, PHT 2801C; Corequisites: PHT 2162, PHT 2701, PHT 2701L.

PHT2820
Clinical Practice and Conference III
7.00 credits
Advanced clinical experiences in patient care activities under the direct supervision of a licensed physical therapist. Prerequisites: PHT 2162, PHT 2701, PHT 2701L, PHT 2810; Corequisite: PHT 2931.

PHT2931
Seminar for Physical Therapist Assistants
3.00 credits
Recognition of the expected current competency levels, and ethical and legal responsibilities of the physical therapist assistant in the health care system. A comprehensive course designed to enhance students' understanding of the curricular content. It provides a thorough review of the curriculum, ensuring that students consolidate their knowledge and skills. Special topics are presented. The role of the PTA including ethical and legal responsibilities are emphasized. The course prepares students for licensure requirements and preparation for the National Physical Therapy Examination (NPTE-PTA) and the Florida Laws and Rules examination. Prerequisites: PHT 2162, PHT 2701, PHT 2701L, PHT 2810; Corequisite: PHT 2820.

Physician Assistant

PAS1800C
Physical Diagnosis 1
2.00 credits
A course which provides the students with the critical basis for and clinical exposure to techniques used in the proper performance and recording of the physical examination of patients. Prerequisites:

BSC2085, BSC2085L, BSC2086, BSC2086L, CHM1045, CHM1045L, CHM1046, CHM1046L, MCB2010, and MCB2010L.

PAS1801C
Physical Diagnosis 2
2.00 credits
In the hospital and classroom setting, the student will obtain experience in performing and recording patient histories and physical examinations and presenting clinical data. Prerequisites: HSA2532, PAS1800C, PAS1803, PAS1831, PAS2936.

PAS1803
Clinical Anatomy and Physiology
2.00 credits
This course is designed for students accepted into the Physician Assistant Program. The course will review basic Anatomy and Physiology principles, while integrating important clinical concepts. Students will learn to transition from Anatomy and Physiology to Pathophysiology. Prerequisite: BSC2085, BSC2085L, BSC2086, BSC2086L, CHM1045, CHM1045L, CHM1046, CHM1046L, MCB2010, MCB2010L.

PAS1811C
Clinical Medicine 1 for Physician Assistants
5.00 credits
Students will learn the signs, symptoms, and pathophysiology of common diseases affecting pediatric, adult, and geriatric patients. In addition, diagnosis, therapeutic interventions, and follow-up will be learned. Patient education and preventative medicine will also included.
Prerequisite: PAS1800C, PAS1803, PAS1831, and PAS2936

PAS1812
Behavioral & Community Medicine
1.00 credits
This course utilizes a biopsychosocial system approach to identify social determinants within the health care delivery system. Students will participate in outreach projects to implement concepts learned in the classroom within a community environment. Prerequisites: PAS1800C, 1831, 2936.

PAS1813
Pathophysiological Basis of Disease 1
2.00 credits
First course in the sequence PAS 1813, 1824. An introduction to the underlying pathologic bases for specific disease processes. Prerequisites: HSA2532, PAS1800C, PAS1803, PAS1831, PAS2936.

PAS1820C
Clinical Medicine 2 for PAs
5.00 credits
The second course in the sequence PAS 1811, 1820.Focuses on signs, symptoms, and pathophysiology of common diseases of all ages. Prerequisites: PAS 1801C, 1811, 1824, 1830.

PAS1822L
Electrocardiography
1.00 credits
A study of the principles and practical application of electrocardiography for the physician assistant. Includes practice in Basic and Advanced Cardiac Life Support measures for life threatening emergencies. Prerequisites: HSA2532, PAS1800C, PAS1803, PAS1831, PAS2936.

PAS1823
Pharmacology 1
4.00 credits
The first course in the sequence PAS 1823, 1830. The study of the preparation, uses, and action of drugs. Prerequisites: HSA2532, PAS1800C, PAS1803, PAS1831, PAS2936.

PAS1824
Pathophysiological Basis of Disease 2
2.00 credits
A continuation of PAS 1813 Focus is on cell dynamics and immunity. Prerequisites: HSA 2532, PAS 1801C, 1811C, 1812, 1813, 1822C, 1823.

PAS1831
Clinical Diagnostic Imaging
1.00 credits
A study of multiple imaging modalities employed in the diagnosis of pathologic processes. Prerequisites: BSC2085, BSC2085L, BSC2086, BSC2086L, CHM1045, CHM1045L, CHM1046, CHM1046L, MCB2010, and MCB2010L.

PAS2936
Contemporary Issues for the PA
1.00 credits
In this course the student will examine current issues, challenges, and practices influencing leaders in the field of health care education. The student will learn to use evidenced based medicine to research topics including leadership perspectives on health care education and promotion; the changing nature of health care delivery in the United States; demographic, economic, ethical, and political factors influencing the practice of health education.

PAS3019
Pathophysiological Basis of Disease III
2.00 credits
This course establishes scientific core knowledge and bridges the basic medical sciences with clinical medicine. The course covers the pathophysiology of human diseases that appear as a result of structural and functional alterations of the human body systems. The course begins with the study of human anatomy and physiology pertinent to the pathological conditions presented and progresses to the pathophysiological topics needed by physician assistant students. The course will enhance decision-making ability when working as a PA in clinical practice. Prerequisite: PAS 1821, 1824, 3038C, 3075

PAS3038C
Physical Diagnosis III
2.00 credits
This course will build upon skills learned in Physical Diagnosis I and II and will prepare the physician assistant student with the essential skills for entry into clinical practice. Students will learn to perform medical interviews and physical examinations on professional patients and high-fidelity simulators. Prerequisite: HSA 2532, PAS 1800C, 1801C, 1811C, 1812, 1813, 1822C, 1823, 1831

PAS3042C
Clinical Medicine III for Physician Assistants
5.00 credits
Students will learn the signs and symptoms, diagnosis, therapeutic and non-therapeutic interventions of common diseases affecting pediatric, adult, and geriatric patients. Patient education and preventative medicine will also be included.Prerequisite: PAS 1821, 1824, 3038C, 3075

PAS3070
Clinical Pharmacotherapeutics
3.00 credits
This course will provide a team-based, active, and applied learning environment to solve patient cases related to the management of pharmacotherapy. Students will work within specified learning groups to solve patient cases. Students will learn from their future colleagues by working together to develop treatment plans and answer questions which are designed to promote active learning and critical thinking skills. Following each case, facilitated discussion will occur to promote student learning and retention of material. Real world examples will be incorporated into discussions and explanations of patient cases. Prerequisite: PAS 1821, 1824, 3038C, 3075

PAS3075
Pharmacotherapeutics
4.00 credits
The second course in the sequence PAS 1823, 1830. The study of the use of drugs to treat disease, including contraindication and incompatibilities; drug interactions; side effects and their treatment, and dosages and calculations. Prerequisites: HSA 2532, PAS 1801C, 1811C, 1812, 1813, 1822C, 1823.

PAS3140
Genetics
4.00 credits
The study of the use of drugs to treat disease, including contraindication and incompatibilities; drug interactions; side effects and their treatment, and dosages and calculations. Prerequisite: PAS 1821, 1824, 3038C, 3075

PAS3203C
Surgical Problems & Procedures
5.00 credits
During this course the student will be exposed to the various aspects of general, orthopedic, cardiovascular, thoracic, ENT, neurologic, urologic, and pediatric surgical problems, their diagnosis and treatment. Laboratory components of this course will include learning fundamental techniques necessary in preoperative and postoperative care, including nasogastric intubation, central venous line placement, arterial and venous punctures and sterile techniques. Prerequisites: HSA 2532, PAS 1801C, 1811C, 1812, 1813, 1822C, 1823.

PAS4191L
Internal Medicine
4.00 credits
The clinical course focuses on basic medical practice. The student is exposed to common medical problems encountered on in-patient and out-patient medical services. Emphasis is placed on the history and physical examination and the process required in the proper work-up and management of the patient. Patient care experience in the various subdivisions of internal medicine including oncology, hematology, neurology, nephrology, gastroenterology, rheumatology, pulmonology, cardiology, and infectious diseases may be required. Prerequisites: PAS 3019, 3042C, 3070, 3140, 3203C.

PAS4290
Surgery
2.00 credits
During the clinical course the student will be exposed to a variety of clinical problems routinely seen on the surgical service. Emphases will be placed on preoperative, intraoperative and postoperative management of the patient. In the operating room the student will practice aseptic technique, operating room principles, and assist in surgery. Prerequisites: PAS 3019, 3042C, 3070, 3140, 3203C.

PAS4391
Pediatrics
4.00 credits
This clinical course in pediatric care settings will introduce students to childhood illnesses and normal variations of growth and development. Students will perform histories and physical examinations and manage patients in the newborn nursery, pediatric out-patient clinic and emergency room. Prerequisites: PAS 3019, 3042C, 3070, 3140, 3203C.

PAS4493
Family Medicine
4.00 credits
This clinical course introduces the student to the family practice setting where emphasis is placed on the common diseases treated by primary care practitioners in conjunction with other members of the health care team. The student is exposed to rural epidemiology, cultural diversity, and problems that affect delivery of health care in rural and under-served areas. Prerequisites: PAS 3019, 3042C, 3070, 3140, 3203C.

PAS4590
Obstetrics/Gynecology
2.00 credits
During this clinical course the student will participate on the obstetrical service managing pregnancy, labor and delivery and be introduced to pre-and postnatal complications. The student will also participate in the management of common gynecologic problems. Prerequisites: PAS 3019, 3042C, 3070, 3140, 3203C.

PAS4690
Emergency Medicine
2.00 credits
This clinical course in an emergency care setting will provide opportunities for the student to manage the acutely ill and traumatized patient. The student will learn to perform history and physical examination on the acutely ill patient with emphasis being placed on the management and support measures necessary in situations which are life threatening. Prerequisites: PAS 3019, 3042C, 3070, 3140, 3203C.

PAS4940
Psychiatry
2.00 credits
This clinical course in a psychiatric care setting will allow students to participate in daily rounds and become knowledgeable of the use of psychotropic medications for psychiatric disorders. Group therapy sessions will be a major part of the learning experience. Prerequisites: PAS 3019, 3042C, 3070, 3140, 3203C.

PAS4943
Selective Clerkship
2.00 credits
This clinical course provides the opportunity for students to become familiar with a medical specialty of their choice. The student will have the opportunity to familiarize with the role of the physician assistant in that specialty and reinforce the most common examination techniques, diagnoses and treatments within the selected specialty. Prerequisites: PAS 3019, 3042C, 3070, 3140, and 3203C.

Physics

AST1002
Descriptive Astronomy
3.00 credits
This course provides a comprehensive look at modern astronomy, emphasizing the use of the scientific method and the application of physical laws to understand the universe including earth and its environment. Throughout this course, students will develop the ability to discern scientific knowledge from non-scientific information by using critical thinking. Student learning outcomes: students will define terms used to measure and describe the universe; students will explain the processes involved in the formation and evolution of celestial bodies over astronomical time according to different models and theories; students will describe how scientific theories evolve in response to new observations and critically evaluate their impact on society; students will formulate empirically testable hypotheses derived from the study of physical processes and phenomena; students will apply logical reasoning skills through scientific criticism and argument to separate science from non-science; and students will gather and analyze astronomical data and communicate results in graphic and written forms.

AST1002L
Descriptive Astronomy Laboratory
1.00 credits
This is a laboratory course available to students taking the introductory Astronomy course AST 1002. Students will learn to obtain astronomically relevant scientific information by performing experiments, exercises or observations. They will learn to measure, collect, and analyze scientific data, to do calculations with the data, and to report their results.

PHY1004
Physics with Applications 1
3.00 credits
Emphasizes the basic concepts and principles and their practical applications. Designed specifically for students in technical studies and for others wishing to strengthen their physics background before taking advanced courses. Prerequisite: MAT 1033 with a grade of "C" or better; Corequisite: PHY1004L with a grade of "C" or better.

PHY1004L
Physics with Applications 1 Lab
1.00 credits
Laboratory for PHY 1004. Prerequisite: MAT 1033; corequisite: PHY 1004.

PHY1020
General Education Physics
3.00 credits
This course offers a comprehensive survey of physics, covering a wide range of topics including motion, newton's laws, energy, sound, heat, electricity, magnetism, and optics. Emphasizing a conceptual understanding of physics, the course integrates critical thinking skills and real-world applications. Student learning outcomes: students will critically evaluate everyday phenomena using the scientific method; students will explain the basis of physical principles (such as conservation laws) and how they apply to everyday phenomena; students will interpret information conveyed in diagrams and graphs; and students will perform simple calculations relevant to real world problems.

PHY1025
Basic Physics
3.00 credits
This course will help students to facilitate the transition from high school to college/university physics. The course will emphasize problem-solving techniques. Topics may include units of measure, particle mechanics, conservation laws, and basic field concepts. Prerequisite: MAC1105.

PHY2048
Physics with Calculus 1
4.00 credits
This calculus-based course serves as the first in a two-part series, covering topics like kinematics, dynamics, energy, momentum, rotational motion, fluid dynamics, oscillatory motion, and waves. Designed for science and engineering majors, the course integrates critical thinking, analytical skills, and real-world applications. Student learning outcomes: students will solve analytical problems describing different types of motion, including translational, rotational, and simple harmonic motion; students will apply Newton's laws, and conservation laws to solve analytical problems of mechanics; students will identify and analyze relevant information presented in various formats such as graphs, tables, diagrams, and/or mathematical formulations; and students will solve real-world problems using critical thinking skills and knowledge developed from this course. Prerequisites: High school physics or PHY 1025, PHY 2053 or departmental approval and MAC 2311; Corequisite: PHY 2048L.

PHY2048L
Physics with Calculus 1 Lab
1.00 credits
This laboratory course complements PHY2048 by providing hands-on experience in the principles of kinematics, dynamics, energy, momentum, rotational motion, fluid dynamics, oscillatory motion, and waves. Students will engage

in practical experiments that reinforce theoretical concepts covered in the parent course, allowing them to apply analytical problem-solving techniques to real-world scenarios. Through a series of structured laboratory activities, students will develop critical thinking and analytical skills while collecting and analyzing data related to motion and forces. This course is designed for science and engineering majors, preparing them for advanced studies and professional applications in physics and related fields. Prerequisites: High School Physics or PHY1025 or PHY2053 and PHY2053L or departmental approval and MAC2311; Corequisite: PHY2048

PHY2049
Physics with Calculus 2
4.00 credits
Foundation course for physical science and engineering majors. PHY 2048 covers classical mechanics and thermodynamics. PHY 2049 includes electricity, magnetism, waves and optics. Prerequisite: PHY 2048 and PHY 2048L; Corequisites: PHY 2049L and MAC 2312..

PHY2049L
Physics with Calculus 2 Lab
1.00 credits
Laboratory for PHY 2049. Prerequisite: PHY 2048 and PHY 2048L; Corequisites: PHY 2049 and MAC 2312.

PHY2053
Physics (without Calculus) 1
3.00 credits
This course is the first in a two-part series intended for non-physics majors, offering an algebra and trigonometry approach to topics such as kinematics, dynamics, energy, momentum, rotational motion, fluid dynamics, oscillatory motion, and waves. The course fosters analytical and critical thinking skills to promote a scientific understanding of the real world. Student learning outcomes: students will solve analytical problems describing different types of motion, including translational, rotational, and simple harmonic motion using algebra and trigonometry; students will apply Newton's laws, and conservation laws by using algebra and trigonometry to solve analytical problems of mechanics; students will identify and analyze relevant information presented in various formats such as graphs, tables, diagrams, and/or mathematical formulations; and students will solve real world problems using critical thinking skills and knowledge developed from this course. Prerequisite: MAC 1114 or MAC 1147; Corequisite PHY 2053L.

PHY2053L
Physics (without Calculus) 1 Lab
1.00 credits
This laboratory course is designed to complement PHY2053. Students will engage in hands-on experiments that reinforce theoretical concepts related to kinematics, dynamics, energy, momentum, rotational motion, fluid dynamics, oscillatory motion, and waves. Through practical applications of algebra and trigonometry, learners will develop analytical skills while conducting experiments that illustrate key physical principles. The course emphasizes critical thinking and problem-solving as students collect and analyze data, interpret results, and communicate their findings effectively. This lab experience aims to deepen students' understanding of the scientific concepts covered in the parent course and their relevance to real-world situations. Prerequisite: MAC1114 or MAC1147; Corequisite: PHY2053

PHY2054
Physics (without Calculus) 2
3.00 credits
An introduction to the basic principles of physics. PHY 2053 covers mechanics, sound and thermodynamics. PHY 2054 includes electricity, magnetism and optics. Prerequisite: PHY 2053; corequisite: PHY 2054L.

PHY2054L
Physics (without Calculus) 2 lab
1.00 credits
The physics lab courses are one-credit courses designed to be taken in conjunction with a physics lecture. A different experiment is performed each week with topics chosen to correspond with the material being studied in the lecture. Each experiment is designed to be completed in about 2 contact hours. Prerequisite: PHY 2053L; Corequisite: PHY 2054..

PSC1121
General Education Physical Science
3.00 credits
A study of the major concepts and principles from each of the following areas: physics, chemistry, and astronomy. Prerequisite: MAT1033.

PSC1515
Energy in the Natural Environment
3.00 credits
Investigation of the physical environment using energy as a theme to demonstrate the impact of science and technology on the environment and on the lives of people.

Political Science

CPO2100
Comparative European Government
3.00 credits
This course discusses the structures and functioning of the systems of government in Western Europe. Students will analyze major policy issues and approaches to resolving them, and cultural differences and interdependence among the Western European countries in policy determination. Recommended prerequisite: a prior course in History or Social Science. Offered first semester. Given in English. Offered through overseas study program.

CPO2408
Comparative Middle Eastern and North African Governments
3.00 credits
The Middle East & North Africa (MENA) has uninterruptedly been at the forefront of international geopolitics for almost a century. This enduring geopolitical visibility has important cultural, societal, economic, and security implications at national, regional, and international levels. This course is designed to tackle some of these issues by providing students with a historico-cultural, politico-economic, and geo-strategic survey of the Middle East.

CPO2441
Islam in the Modern World
3.00 credits

The survey course is designed to grant students a broad-based exposure across a variety of conceptual debates, historical events, and policy issues at the intersection of Islam and the modern world and the paths forward. The issues especially religiously-inspired and informed violence/conflict and debates surrounding them have assumed prominence in the 21st century with the resurgence of religion in politics and the subsequent struggle for Islam. These issues will be contextualized in normative, empirical and historical frameworks to equip students with a sophisticated and multi-dimensional conceptual toolbox to analyze them.

INR1949
Co-op Work Experience 1: INR
3.00 credits

This is a course designed to continue training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-op Department approval. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval.

INR2002
International Relations
3.00 credits

The nature of international relations, the causes of leading international problems, foreign policies of world powers, international political organizations, and the origins of war and peace in the international arena.

INR2440
International Law and Organization
3.00 credits

International law and problems in world politics; a review of man's attempt to control international politics through international law and organizations, including the League of Nations, the United Nations, NATO, and the European Union. A prior course in History or Social Science is desirable. Offered second semester. Given in English. Offered through Overseas Study Program.

INR2949
Co-op Work Experience 2: INR
3.00 credits

This is a course designed to continue training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-op Department approval and completion of 1949 Co-op work experience. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval.

INS2200
Introduction to Conflict Resolution and Peace Studies
3.00 credits

Introduction to Conflict Resolution and Peace Studies is an interdisciplinary course exploring foundational concepts, methodologies, and practical approaches to interstate and intra-state conflicts and how to tackle them. The course has no specific prerequisites and will appeal to a broad audience as it analyzes a broad spectrum of perspectives in the field of conflict and peace studies. By contextualizing the challenge and transmitting the knowledge of peace in normative, empirical and historical frameworks, the course will equip students with a multi-dimensional conceptual toolbox to analyze it while inspiring them to create a more equitable and harmonious world.

INS2300
Global Environmental Politics
3.00 credits

Global Environmental Politics is an interdisciplinary course exploring the evolving relationship between humanity and the environment from diverse conceptual, normative, and empirical perspectives. The course has no specific prerequisites and will appeal to a broad audience as it analyzes a broad spectrum of perspectives in the field. The course will explore the most pressing contemporary environmental challenges, including climate change, loss of biodiversity, desertification, trade in dangerous waste, and overexploitation of natural resources as well as various political and policy responses to deal with them.

INS2310
Religion and Global Politics
3.00 credits

The interdisciplinary course introduces students to the increasingly visible role of religious identity in international and global politics. It offers a macro-level overview of the intersection of religion and politics in a historical context and sheds light on the intertwined histories and trajectories connecting them. It explores how this nexus has been shaped by belief and value systems as well as the historical socio-economic and political circumstances and conditions. Among the themes addressed in the course are religious diversity and human rights, interfaith dialogue and conflict resolution, and religion in the age of globalization.

ISS2270
Multicultural Communications and Relations
3.00 credits

This course uses an interdisciplinary approach to examine the complex interactions among ethnicity, race, gender, age, and class, as well as other ways in which we differ as they pertain to shaping personal awareness, understanding, and skills that will allow them to interact more effectively with diverse populations, age, groups, and lifestyles and to think through and value human diversity. This course has an overriding principle based on the concept of human rights.

POS2041
American Federal Government
3.00 credits

In this course, students will investigate how the national government is structured and how the American constitutional republic operates. It covers the

philosophical and historical foundations of American government, including but not limited to the Declaration of Independence, the United States Constitution and all its Amendments, and the Federalist Papers. The course examines the branches of government and the government's laws, policies, and programs. It also examines the ways in which citizens participate in their government and ways their government responds to citizens. Student learning outcomes: students will demonstrate an understanding of the basic principles and practices of America's constitutional republic; students will demonstrate knowledge of the nation's founding documents, including the Declaration of Independence, the U.S. Constitution and its Amendments, and the Federalist Papers; students will demonstrate knowledge of landmark U.S. Supreme Court cases, landmark legislation, and landmark executive actions; students will demonstrate knowledge of the history and development of the American federal government and its impact on law and society; students will demonstrate an ability to apply course material to contemporary political issues and debates; and students will demonstrate the ability to engage in discussion and civil debate on American politics that are associated with multiple points of view.

POS2112
State and Local Government in America
3.00 credits
The typical state and local government organization, together with political practices in America, with special emphasis on the governmental organization and the major contemporary political problems of the State of Florida and of Florida communities.

POS2293
Islam and America
3.00 credits
Islam and the United States offers a survey treatment of the historically charged relationship between America and the Muslim World and the path forward. The course analyzes the intersection of religion, identity politics, geopolitics and economics of Islam-US relations in a historical context. These issue areas will be contextualized in normative, empirical and historical frameworks to equip the student with a sophisticated and multi-dimensional conceptual toolbox to analyze them.

POT2014
European Political Theory 1
3.00 credits
This course covers the more important trends in European political thought from Plato to the present. It examines those ideas which have contributed to the shaping of the political cultures of Western and Eastern Europe. It discusses the historical evolution of key concepts of politics such as freedom, order, political obligations, justice, consent, rights and duties, power and authority. A prior course in Government, History or Philosophy is desirable. Given in English. Level 1. Offered through Overseas Study Program.

Portuguese Language

POR1120
Elementary Portuguese 1
4.00 credits
In this course, students will develop appropriate proficiency in interpersonal, interpretive, and presentational modes at the novice mid-level in Portuguese. Note: students must pass this course with a C or better to continue to POR1121.

POR1121
Elementary Portuguese 2
4.00 credits
In this course, students will develop appropriate proficiency in interpersonal, interpretive, and presentational modes at the novice high level in Portuguese. Note: students must pass this course with a C or better to continue to POR2220. Prerequisite: POR1120.

POR2220
Intermediate Portuguese 1
4.00 credits
Students will understand, speak read write, and gain cultural awareness of Portuguese through a systematic review (using an integrated, multimedia approach) of reading, grammar, and writing skills with emphasis on oral and written communication. Prerequisite: POR 1121 or equivalent.

Psychology

CLP1006
Psychology of Personal Effectiveness
3.00 credits
This is an applied psychology course which emphasizes understanding of the principles of effective human behavior and applying these to the areas of personal awareness, interpersonal relations, communication, and work/career development. Students will learn strategies to apply these principles in both their personal and professional lives.

CLP2000
Dynamics of Behavior
3.00 credits
Analysis of mechanisms of adjustment, motivation, frustration and conflict, learning personality and psychotherapy. Emphasis is on the psychological processes of the normal individual functioning in society rather than on behavior disorders.

CLP2140
Abnormal Psychology
3.00 credits
This course examines the major categories of mental disorders and their diagnostic criteria and treatments. Students will analyze the impact of mental disorders on individuals, families, and society and the impact of cultural factors, public attitudes, community resources, ethical issues, and legislation on the diagnosis and treatment of mental disorders. Prerequisite: PSY2012.

CLP2431
Field Experience in Behavioral Analysis
3.00 credits
The student will learn the process and importance of observing, documenting, and interpreting the behavior of individuals with special needs. Students will learn and apply various methods to document behavior and create behavioral treatment plan. (20 hours service learning). Prerequisite(s): EAB 1001.

CLP2470
Introduction to Childhood Psychopathology
3.00 credits
This course is designed especially for students who are interested in completing the RBT examination through the BCBA. The course will cover measurement, assessment, skill acquisition, behavior reduction, documentation and reporting, and professional conduct and scope of practice, as well as all subtasks listed in the RBT checklist and the Professional and Ethical Compliance Code for Behavior Analysts by the BCBA. Prerequisite(s): PSY 2012.

DEP2000
Human Growth and Development
3.00 credits
This course examines the physical, cognitive, social and emotional development of human beings from conception to death. Students will learn about theories of development, key issues in the field and apply research in developmental psychology throughout the prenatal, infancy, childhood, adolescence and adulthood periods of the lifespan.

DEP2100
Child Growth and Development
3.00 credits
This course in Child Growth and Development is designed especially for the student interested in the human life span from birth through the first eight years. The course is intended to acquaint the student with basic theoretical models of development and such specific topics as heredity teratogenic agents, learning, intelligence, socialization, personality, sex role identification, language acquisition and moral development.

DEP2402
Psychology of Adulthood and Aging
3.00 credits
This course will examine adulthood and aging from a multidisciplinary and diversity perspective. This course will explore the biological, physical, psychological, cognitive, and cultural changes during adulthood and aging including contemporary aspects of work-family life, and retirement. Aspects of death and dying will also be discussed from a multidisciplinary perspective.

EAB1001
Foundation in Registered Behavior Technician
3.00 credits
This course is designed especially for students who are interested in completing the RBT examination through the BCBA. The course will cover measurement, assessment, skill acquisition, behavior reduction, documentation and reporting, and professional conduct and scope of practice, as well as all subtasks listed in the RBT checklist and the Professional and Ethical Compliance Code for Behavior Analysts by the BCBA.

INP2390
Psychology of Work
3.00 credits
Applies the understanding of effective human relations to work situations. Personal dynamics for success are also considered. Students will be taught how to influence behavior on the job as they apply their knowledge and interpersonal skills to specific experiences in the work place.

PSB2041
Behavioral Neuroscience
3.00 credits
This course presents an approach to the study of the biology of human behavior and aims to introduce the field of Biopsychology. It is designed to provide each student with comprehensive exposure to the nervous system and how it governs various behaviors.This is an introduction course that explores how our brains develop, how they work, and how they are changed by life experiences. Topics include neural communication, localization of brain function, neural systems, and control of behavior. Upon completion of the course, the student will have a solid foundation regarding the biological basis of behavior upon which to build on in more advanced courses of study.

PSB2442
The Psychology of Addiction
3.00 credits
This course will examine psychological, medical, pharmacological, legal, economic and sociological aspects of addiction to and use of various chemicals. The course will take an in-depth look at narcotic sedatives, and stimulants including alcohol, cocaine, heroin, cannabis, caffeine and tobacco.

PSY2012
Introduction to Psychology
3.00 credits
In this course, students will gain an introduction to the scientific study of human behavior and mental processes. Topics may be drawn from historical and current perspectives in psychology. Student learning outcomes: students will be able to identify basic psychological theories, terms, and principles from historical and current perspectives; students will be able to recognize real-world applications of psychological theories, terms, and principles; students will be able to recognize basic strategies used in psychological research; and students will be able to draw logical conclusions about behavior and mental processes based on empirical evidence.

PSY2050
Introduction to Forensic Psychology
3.00 credits
This course explores the interaction between psychology and the legal system. Students will learn the foundations, history, and terminology of forensic

psychology and the influence of media and cultural issues. Students will also learn about the forensic psychologist's role in criminal and civil proceedings, public policy, law enforcement, and victimization. Prerequisite: PSY2012.

PSY2800
Psychology of Genocide
3.00 credits
Students will learn the psychological, social, and cultural roots of genocide, human cruelty, and mass violence. Students will examine the various factors influencing such acts, and the emotional and psycho- logical impact upon victims, perpetrators, rescuers, and society. Prerequisite: ENC1101.

PSY2940C
Mental Health - Aging Practicum
3.00 credits
This Capstone course will provide students with field experience on neuroscience and aging through a practicum (non-paid), in a for profit or not for profit setting that serves older adult populations. The students will have the opportunity to apply the knowledge, skills and abilities gained through the Neuroscience and Aging CCC. Departmental Permission Required.

SOP2002
Social Psychology
3.00 credits
Combines a knowledge of psychology and sociology, in an interdisciplinary approach to the study of human interaction. Main themes deal with the nature of attitudes, how attitudes may be changed, the processes of interaction and the nature of group structures.

SOP2772
Human Sexuality
3.00 credits
This course examines the biological, theoretical, social, psychological, and cultural aspects of human sexuality. Students will learn about sexual anatomy, sexual response cycle, sex and gender development, sexual attraction and relationships, reproductive health issues, and social issues in sexuality.

Quantitative Methods in Business

QMB2100
Basic Business Statistics
3.00 credits
The application of basic statistical methods to business problems. Emphasis is on learning to select the appropriate statistical method of solving a given business problem, applying the chosen method, and interpreting the solution. Prerequisite: Acceptable score on the Algebra Placement test or equivalent; Computational Course.

Radiation Therapy Technology

RAT1001
Introduction To Radiation Oncology
2.00 credits
Introduction to the clinical setting in a radiation therapy department. The course includes radiation protection, mathematical concepts in radiation oncology, and medical terminology in the treatment of patients in a radiation oncology setting. Prerequisites: ENC 1101, MAC 1105, BSC 2085, 2085L; Corequisites: RAT 1211, 1840.

RAT1021
Principles and Practice of Radiation Therapy 1
2.00 credits
A study of all major radiotherapy equipment such as linear accelerators and superficial ortho- and mega-voltage units. Auxiliary equipment such as simulators, immobilization devices, beam directors and modifiers will also be discussed. Patient positioning, treatment planning, patient flow, and quality assurance will be presented in detail. Corequisites: RAT 1021, 1614, 1814L, 2243.

RAT1614
Radiation Therapy Physics 1
2.00 credits
A basic radiation physics course containing fundamental principles and concepts. The course includes radiation production, properties, and characteristics as well as structure of the atom and matter, electrostatics, magnetism, electrodynamics, and the electromagnetic spectrum. Corequisites: RAT 1001, 1021, 1211, 1804L.

RAT1615
Radiation Therapy Medical Imaging
3.00 credits
This course is an introductory study to radiographic processes which includes the processes behind computed tomography, magnetic resonance imaging, nuclear medicine, positron emitting tomography, and ultrasound as it pertains to simulation, detection, and diagnosis of cancer.

RAT1619
Elements of Treatment Planning
2.00 credits
Determination of radiation doses in treatment planning using computerized methodology. Corequisites: RAT 2690, 2834L.

RAT1657
Radiation Protection/Quality Assurance
2.00 credits
The student will learn to present basic principles of radiation protection and safety in radiation therapy. Radiation health and safety requirements of federal and state regulatory agencies, accreditation agencies and health care organizations are included. Specific responsibilities of the radiation therapist are discussed, examined and

RAT1804L
RAT Clinic 1
5.00 credits
Students will learn radiation therapy procedures in a local radiation therapy department. Students are closely supervised by certified radiation therapy technologists as they are introduced to record-keeping and treatment units. Prerequisite: RAT 1801L.

RAT1814L
Clinic 2
8.00 credits
Continued patient treatment assignments. The responsibilities of the students increase as more complex competencies in patient treatment are mastered under direct supervision. Prerequisite: RAT 1804L.

RAT1824L
Clinic 3
8.00 credits
Continuation of advanced patient treatment competencies under the supervision of an ARRT Certified Radiation Therapy Technologist. Prerequisite: RAT 1814L; corequisites: RAT 2243.

RAT2022
Principles & Practice of Radiation Therapy 2
2.00 credits
Continued application of radiation therapy and its effectiveness in treatments. Advanced patient positioning, planning and flow, and quality assurance will be discussed. Prerequisite: RAT 1021; corequisites: RAT 1657, 1824L, 2241, 2618.

RAT2061
Radiation Therapy Seminar
3.00 credits
This course will provide the opportunity for the radiation therapy student to evaluate their cumulative knowledge through comprehensive testing, refinement of accumulated knowledge, and retention of all aspects of radiation therapy. The course challenges the student to be prepared for the American Registry of Radiologic Technologist (ARRT) comprehensive national examination upon completion of graduation.

RAT2123
Patient Care in Radiation Therapy
3.00 credits
This course presents patient care procedures relevant to the radio logic health science student. Content includes specific knowledge and skills required for patient care such as pharmacology, vital sign monitoring, recognizing side effects of treatment, nutritional needs of patients and psychological needs of patients.

RAT2241
Radiobiology
2.00 credits
Principles of cell response to radiation. Factors influencing the effects of radiation, tissue sensitivity, and environmental factors are discussed. Corequisites: RAT 1657, 1824L, 2022, 2618.

RAT2243
Clinical Oncology & Neoplasms
2.00 credits
A continuation of medical oncology and pathology 1. Corequisites: RAT 1021, 1614, 1814L.

RAT2618
Radiation Therapy Physics 2
2.00 credits
Specifics of ionizing radiation such as details of production, interactions, and types of radiation and their application to the patient treatment. Properties of production, photon interactions, beam characteristics, and particle irradiation will be discussed. Prerequisite: RAT 1614; corequisites: RAT 1657, 1824L, 2022, 2241.

RAT2834L
Clinic 4
6.00 credits
This course includes clinical rotations through the radiation therapy department. Students will be provided the opportunity to apply theory learned from the previous semester in the various areas of the treatment process. Prerequisites: RAT 1824L; corequisites: RAT 1619, 2690.

Radiologic Technology

RTE1000
Orientation to the Imaging Sciences
2.00 credits
This course is an introduction to the overall field of Imaging Sciences, radiography in particular. Students will learn the basic principles of radiation protection as it applies to the various modalities in imaging and treatment, a history of the imaging sciences, ethical/legal issues, professional behavior, medical terminology, and math/physics.

RTE1418
Radiographic Technology 1
3.00 credits
Introduction to radiographic imaging including the relation of technical factors and accessories. The chemistry of manual and automatic film processing is included. Prerequisite: RTE 1503, 1503L; Corequisite: RTE 1513L.

RTE1503
Radiographic Positioning 1
3.00 credits
Basic routine positioning of the chest, abdomen, upper and lower extremities, digestive and urinary systems. Corequisite: RTE 1503L.

RTE1503L
Radiographic Positioning Laboratory 1
1.00 credits
Laboratory for RTE 1503. Corequisite: RTE 1503.

RTE1513
Radiographic Positioning 2
3.00 credits
Positioning of the bony pelvis, shoulder girdle, bony thorax, spinal column, skull and facial bones. Prerequisite: RTE 1503, 1503L; Corequisite: RTE 1513L.

RTE1513L
Radiographic Positioning Laboratory 2
1.00 credits
Laboratory for RTE 1513. Prerequisite: RTE 1503, 1503L; Corequisite: RTE 1513.

RTE1613
Radiologic Physics
2.00 credits
Basic principles of physics involving x-radiation equipment, production and control.

RTE1804
Radiographic Clinic 1
5.00 credits
The first in a series of six clinical courses. Under direct supervision of faculty and clinical staff, performance of basic diagnostic radiographic procedures is carried out. Corequisite: RTE 1503, 1503L.

RTE1814
Radiographic Clinic 2
5.00 credits
The student will be evaluated on competency performances in routine fluoroscopic, and in urographic procedures. This is the second of six clinical education courses. Prerequisite: RTE 1503, 1503L, 1804.

RTE1824
Radiographic Clinic 3
5.00 credits
The student continues to rotate, under supervision, through different units of a Radiology Department. Development of a capability to assist in diagnostic procedures at a more complex level. Prerequisite: RTE 1814.

RTE2010
New Imaging Modalities in Radiology
1.00 credits
This course will enable the students to compare and contrast the current imaging modalities with the emerging technologies available in Radiology departments. Included in this course will be pictorial archiving and communications systems (PACs), digital imaging, and fusion imaging.

RTE2385
Radiation Biology
2.00 credits
The biologic effects of the interaction of ionizing radiation with living matter.

RTE2457
Radiologic Technology 2
3.00 credits
A more in-depth study of radiographic exposure factors as they relate to specialized procedures and equipment.

RTE2563
Radiographic Positioning 3
2.00 credits
Radiographic procedures which utilize contrast media, sterile techniques, and/or specialized equipment and accessories. Prerequisite: RTE 1513.

RTE2571
Principles of Computed Tomography
3.00 credits
This course provides the radiologic technologist advanced imaging techniques of computed tomography. This introduction to the CT scanning technology will include history and development, equipment, terminology, patient preparation and care, and the principles of image formation, acquisition, and production.

RTE2575
MRI Principles and MRI Safety
3.00 credits
This course is an introduction to the basic principles of MRI, including signal production, basic concepts in image formation and image contrast and resolution. It is intended to provide a solid foundation in MRI technology as well as an understanding of the MRI equipment and its appropriate and safe use. A practical approach to using the correct imaging sequences and parameters will be discussed. Emphasis will be placed in MRI Screening and MRI Safety.

RTE2576
MRI Procedures and Patient Care
3.00 credits
This course is designed to introduce the student to the different image acquisition techniques and common scan sequences used in MRI imaging to describe normal and abnormal anatomy. Emphasis will be placed on basic patient care skills and safe use of equipment used in MRI.

RTE2577C
Magnetic Resonance Imaging (MRI) Practicum
6.00 credits
This course is designed to provide the students with hands-on experience for body imaging. Students will learn to position the patients correctly inside the Magnetic Resonance Imaging (MRI) machine and program the machine to create axial, coronal, and sagittal images of the brain and spinal column.

RTE2762
Cross Sectional Anatomy
3.00 credits
This course is designed to provide the students a thorough knowledge of Axial, coronal. and sagittal imaging planes of our body. Students will also learn to identify various anatomical structures in axial, coronal, and sagittal images of our body.

RTE2834
Radiographic Clinic 4
5.00 credits
Performance of procedures of increasing levels of complexity and responsibility including specialized diagnostic procedures. At this level the program faculty and clinical supervisor will determine if the student can perform procedures with less supervision. Prerequisite: RTE 1824.

RTE2844
Radiographic Clinic 5
8.00 credits
The fifth in a series of six clinical education courses. During this clinical course the student will perform standard quality assurance tests on radiographic equipment and accessories. In addition, the student will have competency evaluations to include a gastrointestinal series and either paranasal sinuses or facial bone studies. Prerequisite: RTE 2834.

RTE2854
Radiographic Clinic 6
3.00 credits
The student will complete the competencies required by the American Registry of Radiologic Technologists to become eligible to apply to sit for the certification exam. The student will socialize into radiography practice by beginning to work more independently of a radiographer. The student will use organizational skills to provide care to patient clients assigned to them during radiographic exams. During this course the student will

be assigned to one rotation during hours other than the normal working hours of the radiology department to gain competency in procedures not usually available during the day. Prerequisite: RTE 2844.

RTE2940C
Computed Tomography Clinical Education
3.00 credits
The course provides the radiologic technologist practical, first-hand experience of scanning procedures and techniques at a supervised clinical site; theories learned in RTE 2569 will be applied. Students will observe, assist, and perform Computed Tomography under the supervision and guidance of a qualified CT Technologist.

Reading College Preparatory

REA0007
Developmental Reading I
4.00 credits
REA 0007 is a college preparatory reading course. Students will learn to build vocabulary skills, literal and critical comprehension skills, and successful reading strategies. Lab time required. Prerequisite: Non-demonstration of readiness through placement testing or alternate methods.

REA0017
Developmental Reading II
4.00 credits
REA 0017 is an intermediate college preparatory reading course. Students will learn to build vocabulary skills, literal and critical comprehension skills, and successful reading strategies. Lab time required. Prerequisite: Non-demonstration of readiness through placement testing or alternate methods.

Reading Education

LAE4211
Methods and Resources for Literacy Development in Young Children
3.00 credits
The student will utilize a variety of assessment tools to measure and evaluate literacy in a K-3 setting. The student will learn to create and administer informal assessments, evaluate results, and differentiate instruction encompassing the reading components. (Twenty hours of clinical experience required in an approved first-third grade setting with ESOL students.). Pre-requisites: RED3009; Co-requisites: EEC4268.

RED3009
Early and Emergent Literacy
3.00 credits
The student will explore emergent and early literacy development and the conditions promoting literacy from birth through third grade and will utilize emergent and early literacy theory and research.(10 hours of clinical experience in a K-3 setting and 1 observation required). Prerequisites: EEC2224, EEC3301.

RED3013
Foundations of Reading Instruction
3.00 credits
The student will develop an understanding of reading components as a systematic process including oral language, phonological awareness, phonics, fluency, vocabulary, and comprehension. The student will recognize the principles, techniques, and procedures required to develop foundational reading skills to increase reading proficiency in P-12 settings utilizing evidence-based literacy instructional approaches. This course addresses Just Read, Florida! reading endorsement competencies 1 and 2. (15 hours of clinical experience). Pre/Co-requisites: EDG3321.

RED3393
Differentiated Instruction in Content Reading
3.00 credits
The student will differentiate instruction for diverse learners by applying the principles of research-based strategies and integrating six components of reading: phonological awareness, phonics, oral language, fluency, vocabulary and comprehension. The student will learn about research-based practices related to instruction of efferent reading and select effective strategies to improve comprehension. This course addresses Just Read, Florida! reading endorsement competencies 2 and 3. Fifteen hours of clinical hours are required in a grade 4-8 setting. Prerequisites: RED3013.

RED4033
Teaching Foundations of Reading Instruction
3.00 credits
The student will develop a foundational understanding of the six components of reading as a systematic process: oral language, phonological awareness, phonics, fluency, vocabulary, and comprehension. The student will recognize the principles, techniques, and procedures required to develop the foundational reading skills that are essential to increasing reading proficiency in students from grades K-12. This is the first of five courses that lead to the Florida Department of Education Reading Endorsement. This course corresponds to Competency 1.

RED4342
Applications of Research-Based Instructional Practice
3.00 credits
Building on the foundation of RED4033, the student will apply the principles of evidence-based research in comprehensive reading instruction. The student will use the reading skills, techniques, and strategies that facilitate reading comprehension. The student will apply the principles of research-based reading instruction, and integrate the six components of reading to facilitate the comprehension of different texts. This is the

second of five courses that lead to the Florida Department of Education Reading Endorsement. This course corresponds to Competency 2. Prerequisite: RED4033.

RED4519
Diagnosis and Instructional Intervention in Reading
3.00 credits
The student will obtain skills to evaluate and remediate reading difficulties in P-12 settings. The student will identify, select, and administer appropriate assessments to differentiate instruction. The student will engage in a systematic problem-solving process to identify and remediate reading difficulties, using the results of informal reading assessments, to plan interventions. This course addresses Just Read, Florida! reading endorsement competencies 3 and 4. Fifteen clinical hours are required in a grade 1-3 setting. Prerequisites: RED3393.

RED4541
Foundations of Assessment
3.00 credits
The student will select and administer appropriate assessments and analyze data to inform reading instruction to meet the needs of all students. The student will engage in a systematic problem-solving process to remediate reading difficulties in emergent, beginning, and fluent readers and will plan effective instructional interventions. This is the third of five courses that lead to the Florida Department of Education Reading Endorsement. This course corresponds to Competency 3. Prerequisite: RED4342.

RED4654
Foundations and Applications of Differentiated Instruction
3.00 credits
The student will apply research-based best practices in educational neuroscience research related to the instruction of reading. Using knowledge of diverse learners, he or she will apply intensive, explicit, multisensory sequential approaches and instructional practices by differentiating the process, product, or context of their reading instruction, and providing scaffolds to enhance comprehension in all areas. This is the fourth of five courses that lead to the Florida Department of Education Reading Endorsement. This course corresponds to Competency 4. Prerequisite: RED4619.

RED4854
Reading Practicum
3.00 credits
The student will synthesize and apply knowledge of the six components of reading, formal and informal reading assessments, skills related to data analysis, and differentiation of instruction in order to plan and implement a comprehensive, intensive, effective, systematic, multisensory, research-based reading plan of instruction for all students. This is the fifth of five courses that lead to the Florida Department of Education Reading Endorsement. This course corresponds to Competency 5. Prerequisite: RED4654.

Real Estate

REE2040
Real Estate Principles and Practices (P&P 1)
4.00 credits
Topics include real property, liens, titles, contracts, tax factors, mortgages, property evaluation, real estate market, licensing requirements, legal aspects of the real estate business, and property management. Completion of this course is required by the Florida Real Estate Commission for approval to take the State Examination.

Religion

REL1210
Religion of the Old Testament
3.00 credits
This course is an introductory course on the Old Testament/Hebrew bible, where we will explore the literature, religions, and beliefs present within this ancient text and examine its cultural and historical development within the Western canon. Through an in-depth study, we will seek to understand the various levels and forms of religion reflected in Jewish and Christian scriptures and analyze how these religious aspects interacted with society over time.

REL1240
Religion of the New Testament
3.00 credits
In this course, students will not only explore the historical sources and material in the New Testament, but also examine its significance within the Western canon, shedding light on its literary and cultural impact across different societies and time periods.

REL2300
Survey of World Religions
3.00 credits
A survey of the origins, beliefs and contemporary practices of the world's religions: Christianity, Confucianism, Hinduism, Islam, Judaism, Taoism and Zen Buddhism. Attention is given to the interactions between specific religions and the cultures in which they are practiced.

Respiratory Care

RET 1024C
Fundamentals of Respiratory Care
2.00 credits
This is an introductory course to the Respiratory Care discipline. Students will learn the history of the profession, terminology, hospital and patient safety, infection control, patient assessment, accessing and utilizing the patient's medical record, critical thinking, Respiratory Care protocols, and patient education. Prerequisite: ENC 1101, RET2274C.

RET1484
Respiratory Care Pathophysiology 1
2.00 credits
This is an introductory course in the study of pulmonary and cardiovascular anatomy, physiology and pathology. Students will learn terminology, disease classification, diagnostic techniques and related physiological concepts. Prerequisite: ENC 1101. Corequisite: RET 1024.

RET2264
Advanced Modalities and Monitoring
2.00 credits
This is an advanced course relating to critical care. Students will learn advanced techniques in invasive and non-invasive monitoring, electrocardiographic monitoring and interpretation, alternatives to conventional ventilation and advanced cardiovascular support systems. Prerequisite RET 2284; corequisite RET 2714.

RET2274C
Respiratory Care Equipment and Procedures 1
2.00 credits
An overview of oxygen and aerosol therapy equipment and procedures normally used for respiratory therapy. Especially emphasized are methods used in medical, surgical, and pediatric patients and their cardiopulmonary physiology as it relates to therapeutic oxygen techniques. Corequisite: RET 1024C.

RET2275C
Respiratory Care Equipment and Procedures 2
2.00 credits
Emphasis on pressure breathing modalities, chest physiotherapy, and incentive devices. Prerequisite: RET 2274C.RET2275L

RET2284
Principles of Mechanical Ventilation
2.00 credits
A continuation of RET 2275. A concentrated course of study which focuses on the theoretical operation, application and procedures related to critical care and mechanical ventilation. Prerequisites: RET 2275, 2275L; corequisite: RET 2284L.

RET2284L
Principles of Mechanical Ventilation Laboratory
2.00 credits
Laboratory for RET 2284. This course will provide an in depth study of the operation of mechanical ventilation devices and associated monitors. Patient safety, troubleshooting and application are stressed. Corequisite: RET 2284.

RET2350
Respiratory Care Pharmacology
2.00 credits
This course is designed to provide training in the basic principles of the administration of medications including dosage and solutions. The drugs administered by respiratory therapists are covered in-depth, along with an introduction to the general pharmacological classifications of other drugs that may be administered to pulmonary patients. Prerequisites: CHM 1033, RET 1484; corequisites: RET 2503, 2275, 2275L.

RET2414
Pulmonary Studies
2.00 credits
In-depth study of diagnostic techniques in the field of pulmonary medicine which includes lung volumes, static and dynamic mechanics of breathing, ventilation, distribution of gases, diffusion and arterial blood gas sampling and handling. Corequisite: RET 2414L.

RET2414L
Pulmonary Studies Laboratory
1.00 credits
Laboratory for RET 2414. Simulated clinical settings of diagnostic techniques used to evaluate pulmonary functions.

RET2503
Respiratory Care Pathophysiology 2
3.00 credits
This is a foundation course on cardiopulmonary disease. The student will learn the pathogenesis, diagnosis, treatment and rehabilitation of the diseases included in the course. Prerequisite: RET 1484; Prerequisite: RET 1484.

RET2601
Respiratory Care Seminar
2.00 - 3.00 credits
This is an advanced course focuses on clinical and nonclinical issues. Students will learn concepts including, but not limited to, clinical research, legal and ethical concerns, home care, extended care, rehabilitation and management. ACLS and PALS certification obtained.

RET2714
Perinatal and Pediatric Respiratory Care
2.00 credits
This course is designed to provide training in perinatal and pediatric respiratory care. Students will learn assessment and therapeutic techniques related to critical care. Corequisites: RET 2264, 2714L.

RET2714L
Perinatal & Pediatric Respiratory Care Laboratory
1.00 credits
This is an introductory laboratory course that will explore assessment and Respiratory Care therapeutics of the perinatal and pediatric patient populations. The student will learn to apply physical assessment techniques, oxygen aerosol and humidity therapies, therapeutic procedures, airway management, resuscitation and management of mechanical ventilation. Corequisite: RET 2714.

RET2832
Respiratory Care Clinic 1
2.00 credits
This is an introductory clinical practice course. The student will learn psychomotor skills related to basic respiratory care and patient care procedures including patient charting, vital signs, infection control and non-pressurized oxygen adjuncts. Prerequisites: RET 2274, 2274L.

RET2833
Respiratory Care Clinic 2
5.00 credits
In conjunction with RET 2274, 2274L and RET 1024, 1024L, RET 2832 is designed to allow the student to develop psychomotor skills related to basic respiratory care and patient care procedures (patient charting, vital signs, infection control and non-pressurized oxygen adjuncts). During the rotation, the student is provided with the opportunity to apply and discuss the theory and techniques as presented in corequisite courses. Corequisites: RET 1024, 1024L 1484, 1484L, 2274, 2274L, 2350.

RET2834
Respiratory Care Clinic 3
8.00 credits
This course is a continuation of RET 2833. Training will be provided on the clinical application of procedures and techniques relating to respiratory critical care. Prerequisites: RET 2284, 2284L; corequisites: RET 2714.

RET2835
Respiratory Care Clinic 4
8.00 credits
This course is designed to provide the student with the clinical application of adult, pediatric, and neonatal intensive respiratory care. Procedures and techniques presented in RET 2280, 2714, 2264 as it relates to their clinical application will be emphasized. Prerequisite: RET 2834; corequisite: RET 2601.

Russian Language

RUS1120
Elementary Russian 1
4.00 credits
In this course, students will develop appropriate proficiency in interpersonal, interpretive, and presentational modes at the novice mid-level in Russian. Note: students must pass this course with a C or better to continue to RUS1121.

RUS1121
Elementary Russian 2
4.00 credits
In this course, students will develop appropriate proficiency in interpersonal, interpretive, and presentational modes at the novice high level in Russian. Prerequisite: RUS1120.

Social Science

ISS1120
The Social Environment
3.00 credits
The Social Environment is an interdisciplinary course that emphasizes the cultural, political, economic and global dimensions of societies. Its main objective is to promote knowledge of contemporary and historical forces that shape our social environment and engage students in a life-long process of inquiry and decision-making.

ISS1161
The Individual in Society
3.00 credits
This is an interdisciplinary course that emphasizes understanding of oneself as a unique individual who, as part of global community, is responsible for decisions affecting his/her psychological, social, environmental, and physical well-being. Main themes include personality and self, society and culture, development and the life cycle, and the maintenance of physical and psychological health.

ISS1301
Introduction to Social Research
3.00 credits
This course is a general introduction to research methodology in the Social Sciences, paying particular attention to research design, data collection and data analysis. This is a course in Applied Social Sciences that will provide students with a survey understanding of social scientific research. This course will include examination of empirical research, including literature reviews, theory, methodology, data collection, data analysis and presentation of results.

Sociology

SYG2000
Introduction to Sociology
3.00 credits
In this course, students will gain an understanding of the basic sociological concepts and vocabulary, including the methodological tools, sociological perspectives, and scientific procedures used by social scientists to collect data and conduct research. Topics generally include: society and culture, institutions, socialization, influences, crime, change, groups, sex, race and ethnicity, family, class, and population. Student learning outcomes: students will apply multiple sociological perspectives; students will identify methodological tools used to evaluate sociological research questions; students will understand dynamics between individual agency and social influences.

SYG2010
Social Problems
3.00 credits
An analysis of the major contemporary and recurring social problems, emphasizing scientific search for variables involved and exploring alternative solutions.

SYG2230
Multi-Ethnic America
3.00 credits
In this course, students will gain an understanding of the theory and problems of underrepresented populations in American society, with an emphasis on inequity, bias, and the evolving dynamics of bias and discrimination. Additionally, the course will critically examine the portrayal of underrepresented populations in the Western Canon, providing insight into the historical and cultural influences that have shaped societal perceptions and attitudes.

SYG2430
Marriage and the Family
3.00 credits
The family as a social institution--its origin and development, its forms and functions, its interrelation with other social institutions, and its role in contemporary civilization. Areas of study include factors contributing to or acting against successful, stable marriage.

Sonography

SON1000L
Introduction to Sonography 1
1.00 credits
An introduction to the physical principles of diagnostic ultrasound. Bases of imaging with ultra sound are discussed as well as clinical units in the various areas of specialization. In conjunction with the lectures, supervised laboratory classes are conducted to familiarize students with

operations of the equipment in each of the clinical areas. Corequisites: SON 1111C, 1121C.

SON1001L
Introduction to Sonography 2
1.00 credits
This second introductory course will cover the past present and future of sonography. After the historical landmarks are identified, the focus will be on the current diversity of applications of diagnostic medical sonography. Students will also discover future trends and developments on the technology horizon of the profession. Prerequisite: SON 1000L.

SON1005L
Basic Sonography
2.00 credits
An introduction to the physical principles of diagnostic ultrasound. Basis of imaging with ultrasound is discussed. In conjunction with the lectures, supervised laboratory classes are conducted to familiarize students with the operations of the equipment. Laboratory experience will include equipment use. Prerequisite: SON 1000L.

SON1006L
Professional Aspects of Sonography
1.00 credits
An introduction to the professional aspects of sonography. Topics include: medical ethics and law, hospital administration, quality assurance/quality control and management.

SON1100L
Principles and Protocols of Imaging
2.00 credits
An introduction to ultrasound scanning principles with instructions for scanning and documenting images. There will be an introduction toCT, MRI, and the areas of radiologic technology to discover how these modalities compliment sonography. The lab will include laboratory scanning, image labelling, image techniques, and handling of ultrasound equipment.

SON1111C
Abdominal Sonography 1
2.00 credits
An in-depth course designed to cover all aspects of clinical abdominal ultrasound studies. Subject matter includes: review of normal anatomy (ultrasonic appearance), indications for ultrasound studies, clinical presentation and data, pathophysiological basis of disease, ultrasonic manifestations of diseases, recognition of adequate images and scanning pitfalls. Corequisite: SON 1000L.

SON1112C
Abdominal Sonography 2
2.00 credits
An in-depth course designed to cover all aspects of clinical abdominal ultrasound studies. Subject matter includes: review of normal anatomy (ultrasonic appearance), indications for ultrasound studies, clinical presentation and data, pathophysiological basis of disease, ultrasonic manifestations of diseases, recognition of adequate images and scanning pitfalls. Prerequisite: SON 1111C.

SON1113L
Sonography Cross Sectional Anatomy
2.00 credits
A thorough course aimed at teaching the student to understand anatomical relationships and recognize structures on crosssectional and sagittal diagrams, photographs of gross anatomy and sonography images. The laboratory conducted in conjunction with the classroom lectures is designed to identify all normal anatomical landmarks in multiple planes in actual scanning situations.

SON1115L
Duplex Abdominal Sonography
1.00 credits
This course is designed to cover aspects of duplex abdominal sonography applications. Topics include: the aorta and its branches, the IVC and its tributaries, and the portal system. Subject matter includes: etiology, pathophysiology, clinical presentations, sonographic appearance and differential diagnosis of diseases. Prerequisite: SON 1112C.

SON1121C
Obstetrics/Gynecology Sonography 1
2.00 credits
An in-depth course designed to present all aspects of clinical OB/GYN ultrasound studies. Subject matter includes: review of normal anatomy (ultrasound appearance) and physiology, indications for ultrasonic studies, clinical presentation, clinical data, pathophysiological basis of disease, ultrasonic manifestations of diseases, recognition of adequate images and scanning techniques and pitfalls.Corequisite: SON 1000L.

SON1122C
Obstetrics/Gynecology Sonography 2
2.00 credits
An in-depth course designed to present all aspects of clinical OB/GYN ultrasound studies. Subject matter includes: review of normal anatomy (ultrasound appearance) and physiology, indications for ultrasonic studies, clinical presentation, clinical data, pathophysiological basis of disease, ultrasonic manifestations of diseases, recognition of adequate images and scanning techniques and pitfalls. Corequisite: SON 1000L

SON1141C
Small Parts Sonography
2.00 credits
This course is designed as an introduction to small Parts/superficial structures sonography, which will address topics such as: Thyroid, Parathyroid and Neck, The Male Pelvis (scrotum, and prostate), and Breast ultrasound. Integrated into this course is the anatomy and physiology, sonographic evaluation, and presentation, as well as the related pathological findings and differential diagnoses pertaining to each structure. Prerequisite: SON 1112C.

SON1145L
Pediatric Sonography
1.00 credits
This course is designed to cover aspects of pediatric ultrasound examinations. Topics include: Liver, biliary, spleen, renal, adrenal, gastrointestinal, scrotum, and musculoskeletal structures. Subject matter includes: etiology, pathophysiology, clinical presentations, sonographic appearance and differential diagnosis. Prerequisite: SON 1141C.

SON1804
Clinic 1
2.00 credits
This is the first in a series of six (6) clinics in which the student is assigned to a medical facility. The student is afforded a hands-on experience in sonography under the supervision of a clinical instructor, sonographer or physician. Corequisite: SON 1000L.

SON1814
Clinic 2
2.00 credits
This is the second in a series of six (6) clinics in which the student is assigned to a medical facility. The student is afforded hands-on experience in sonography under the supervision of a clinical instructor, sonographer or physician. Prerequisite: SON 1804.

SON1824
Clinic 3
3.00 credits
This is the third in a series of six (6) clinics in which the student is assigned to a medical facility. The student is afforded hands-on experience in sonography under the supervision of a clinical instructor, sonographer or physician. Prerequisite: SON 1814.

SON2139L
Cardiovascular Principles
1.00 credits
An introductory course to techniques other than echocardiography utilized in the diagnosis of cardiovascular disease. Topics discussed include physical examination, electrocardiogram, Phonocardiogram, cardiac catherization, and nuclear medicine cardiology. Prerequisite: SON 2400C; Corequisite: SON 2401C.

SON2151C
Neurosonography
2.00 credits
A comprehensive course designed to examine sonographic imaging of the neonatal and infant brain, with an introduction to ultra-operative brain and spinal cord imaging. Emphasis is placed on normal brain anatomy, congenital and malformations and acquired pathologic conditions. Prerequisites: SON 1113L, 1141C.

SON2171C
Vascular Sonography
2.00 credits
This is a comprehensive course designed to teach basic vascular ultrasound technology. Emphasis is placed on recognizing and understanding vascular anatomy, normal hemodynamics, vascular physiology, anatomical variances, recognizing abnormal flow patterns of vascular disease, multiple exams protocols, hemodialysis access structures, vascular graft evaluation, TCD, and vascular data calculations. Prerequisite: SON 2161C.

SON2400C
Echocardiography 1
2.00 credits
An in-depth course designed to cover all aspects of clinical cardiovascular ultrasound studies. Topics discussed are pathophysiological basis of diseases, clinical presentation and clinical data, Doppler and echocardiographic findings in disease, hemodynamic relationships, scanning pitfalls and differential diagnosis. Cardiac pathologies that will be covered are valvular pathology, ischemic heart disease, infective endocarditis, pericardial effusion, tamponade, and congestive heart failure. Prerequisite: SON 1000L.

SON2401C
Echocardiography 2
2.00 credits
An in-depth course designed to cover all aspects of clinical cardiovascular ultrasound studies. Topics discussed are pathophysiological basis of diseases, clinical presentation and clinical data, Doppler and echocardiographic findings in disease, hemodynamic relationships, scanning pitfalls and differential diagnosis. Cardiac pathologies that will be covered are valvular pathology, ischemic heart disease, infective endocarditis, pericardial effusion, tamponade, and congestive heart failure. Prerequisite: SON 1000L.

SON2614C
Acoustical Physics and Instrumentation 1
2.00 credits
The course will present a review of fundamental physics and in-depth study of the physical principles of diagnostic ultrasound. Topics discussed include: properties of sound waves, interaction of sound waves with matter, generation of ultrasound and principles of Doppler ultrasound. Prerequisite: SON 1005L.

SON2618C
Acoustical Physics and Instrumentation 2
2.00 credits
Physical principles of Ultrasound Instrumentation-A course designed to familiarize the student with the physical principles and modes of operation of diagnostic ultrasound equipment. Subject matter includes: transducers, display systems, component parts of a scanning system, real-time scanners, Doppler equipment, quality control, routine maintenance and recent developments. Prerequisites: SON 2614C, CGS 1060.

SON2619C
Doppler Principles and Instrumentation
2.00 credits
This course presents a review of fundamental physics and an in-depth study of Doppler Physical Principles of Diagnostic Ultrasound. Topics also include Doppler Instrumentation, equipment, display systems, quality control, and hemodynamics of blood flow. Prerequisite: SON 2618C.

SON2834
Clinic 4
2.00 credits
This is the fourth in a series of six (6) clinics in which the student is assigned to a medical facility. The student is afforded hands-on experience in sonography under the supervision of a clinical instructor, sonographer or physician. Prerequisite: SON 1824.

SON2844
Clinic 5
3.00 credits
This is the fifth in a series of six (6) clinics in which the student is assigned to a medical facility. The student is afforded hands-on experience in sonography under the supervision of a clinical instructor, sonographer or physician. Prerequisite: SON 2834.

SON2854
Clinic 6
3.00 credits
This is the last in a series of six (6) clinics in which the student is assigned to a medical facility. The student is afforded hands-on experience in sonography under the supervision of a clinical instructor, sonographer or physician. Prerequisite: SON 2844.

SON2930L
Seminar in Sonography
1.00 credits
Students will participate in the various types of continuing education. This may include: society meetings, seminars, conferences and in-services.

SON2935L
Diagnostic Ultrasound Imaging: Advanced Techniques and Case Analysis
1.00 credits
An extensive laboratory aimed at teaching the student to recognize quality images, anatomy, patient positioning, pathology, and scanning technique errors as well as artifacts. For each class, the student will present a case from their current rotation of the teaching file. The presentation will include all technical and clinical information as well as the final interpretation by the supervising physician. Prerequisite: SON 2934L.

Spanish Language and Literature

SPN1120
Elementary Spanish 1
4.00 credits
In this course, students will develop appropriate proficiency in interpersonal, interpretive, and presentational modes at the novice mid-level in Spanish. Note: students must pass this course with a C or better to continue to SPN1121.

SPN1121
Elementary Spanish 2
4.00 credits
In this course, students will develop appropriate proficiency in interpersonal, interpretive, and presentational modes at the novice high level in Spanish. Note: students must pass this course with a C or better to continue to SPN2220. Prerequisite: SPN1120.

SPN2220
Intermediate Spanish 1
4.00 credits
Students will understand, speak, read, write, and gain cultural awareness of Spanish through a systematic review (using an integrated, multimedia approach) of reading, grammar, and writing skills with emphasis on oral and written communication. Prerequisite: SPN 1121 or equivalent.

SPN2340
Spanish for Native Speakers 1
3.00 credits
Writing, spelling and punctuation, sentence structure and reading selections for vocabulary expansion as they are relevant to the training of individual students. Prerequisite: oral ability to communicate in Spanish or permission of department chairperson.

SPN2341
Spanish for Native Speakers 2
3.00 credits
A continuation of SPN 2340.

SPT2842
Contrastive Analysis Spanish/English
3.00 credits
Comparison/contrastive study of the phonology, morphology and syntax of Spanish and English. Recommended for students of translation and interpretation..

SPW2010
Selected Readings in Spanish Literature
3.00 credits
A study of outstanding works, authors, genres, or major literary currents in Spain.

SPW2020
Selected Readings in Latin American Literature
3.00 credits
A study of outstanding works, authors, genres, or major literary currents in Latin America.

Speech Communication

SPC1017
Introduction to Communication
3.00 credits
Students will develop conceptual knowledge and practical skills needed for effective verbal and nonverbal communication in interpersonal, intercultural, small-group, and public communication contexts enabling students to communicate successfully in personal, professional, educational, social, and civic settings. Writing Intensive Course.

SPC2601
Advanced Public Speaking
3.00 credits
For students who have had a basic course in speech or previous experience in public speaking. The course provides participation in such areas as contest, community and on-campus speaking, and speech

criticism. Students receive instruction in audience analysis and rhetorical principles and strategies. Prerequisite: SPC 2608.

SPC2608
Introduction to Public Speaking
3.00 credits
SPC 2608 is a course in which students will practice speaking to audiences as well as listening to and critically analyzing oral communication. Through oral and written communication, students will learn communication theory as applied to a variety of communication situations and social interactions. Prerequisite(s): Demonstration of readiness through placement testing or alternate methods or ENC 0025 with a grade of S. Writing Intensive Course.

SPC2940
Peer Teaching in Speech Communication
3.00 credits
Provides the opportunity for outstanding speech students to advance their skills by functioning as student teachers in speech courses which they have completed successfully. Prerequisite: Permission of the department.

Statistics

STA2023
Statistical Methods
3.00 credits
In this course, students will utilize descriptive and inferential statistical methods in contextual situations, using technology as appropriate. The course is designed to increase problem-solving abilities and data interpretation through practical applications of statistical concepts. This course is appropriate for students in a wide range of disciplines and programs. Student learning outcomes: students will visualize and summarize data using descriptive statistics; students will apply basic probability concepts to draw reasonable conclusions; students will employ concepts of random variables, sampling distributions, and central limit theorem to analyze and interpret representations of data; students will choose an appropriate method of inferential statistics, including confidence intervals and hypothesis testing, to make broader decisions based on sample data; and students will model linear relationships between quantitative variables using correlation and linear regression. Prerequisites: MAT 1033 or MGF 1131 with a grade of "C" or higher. Computational Course.

STA3164
Statistical Methods 2
3.00 credits
This course is for students majoring in data analytics, systems engineering, and related disciplines who require advanced skills in statistical analysis. Students will learn how to perform tests of variance, analysis of variance, analysis of covariance, regression, correlation, and non-parametric statistics. Prerequisite: STA2023

STA4210
Regression Analysis
4.00 credits
This course is for students majoring in data analytics, systems engineering, and related disciplines who require advanced in statistical analysis. Students will learn the principles and procedures of correlations and regression analysis and how to allocate information in data sets using statistical software. Prerequisite: STA3164.

Student Life Skills

SLS1106
First Year Experience Seminar
1.00 credits
This course is designed to provide students a forum for transitioning into college. Students will learn to develop the skills required for success in college and beyond. This course is intended for first time in college students, who are seeking an Associate in Arts degree program.

SLS1125
Student Support Seminar
3.00 credits
This course provides a foundation for gaining knowledge, skills and attitudes necessary for college success. Students will learn specific social, cultural, psychological, and academic considerations that are known to impact student achievement. Students will also assess their competence in each of these areas, and learn strategies that will improve their overall student effectiveness.

SLS1401
Psychology of Career Adjustment
1.00 - 6.00 credits
For students who have not decided, are having difficulty deciding, or need clarification in making a career choice. A format for a systematic investigation for career and life planning is included. It is concerned with "who you are," "where are you going," "how to get there," and "what's out there that fits you." .

SLS1502
College Study Skills
1.00 - 3.00 credits
Skills, techniques and procedures for mastering study strategies such as taking classroom and lecture notes, mastering tests, developing memory/recall, actively listening, and proper management of time.

SLS1505
College Survival Skills
1.00 credits
This is an introductory self-discovery course designed to help students make the transition to college. Students will learn the knowledge and skills necessary for success, including knowledge of academic policies and procedures, effective study strategies, and making sound academic and career choices.

SLS1510
Preparing for Student Success
3.00 credits
This course provides an orientation to college life and helps develop academic, career, and personal goals. Students will

learn college success strategies, goal-setting, learning style assessments, as well as general and discipline-specific study skills in the context of various theoretical, practical, and experiential perspectives.

Surgical Technology

STS1302
Introduction to Surgical Technology
2.00 credits
This course is intended to teach the role of the surgical technologist and central sterile supply technician in the operating room, delivery room and related areas will be covered. The student will learn the basic knowledge of equipment, supplies and instrumentation including the physical environment of the surgical suite.

STS1303
Fundamentals of Surgical Technology
3.00 credits
This course introduces the discipline of surgical technology and the role of the surgical technologist in preventing perioperative disease transmission and microbiology to include the characteristics and activities of microorganisms. It surveys the various microbial groups, especially the bacteria, viruses and fungi with emphasis on pathogenic forms. Various significant aspects of infectious disease that occur in humans are also covered. The course will also include an introduction to principles of perioperative care, asepsis/infection control, proper disinfection, assembly, and sterilization processes for instrumentation following surgical procedures.

STS1304L
Operating Room Techniques Laboratory
3.00 credits
This course will provide the student information on operating room furniture, equipment, and supplies used during surgery. The preparation of the operating room, surgical scrub, gowning and gloving, development of the sterile field, patient positioning, surgical skin prep, and draping will be included and will be part of the lab practical exam. Students will be required to simulate a surgical procedure from start to finish. Students must complete this course with a grade of "C" or higher in order to start the clinical rotations.

STS1307
Surgical Equipment and Instrumentation
3.00 credits
This course prepares the student for the scrub role during surgical procedures, identification of basic surgical instrumentation, passing of the instruments, proper care, reprocessing of instruments following a surgical procedure, and utilizing equipment in the operating room. Students will also learn about surgical wounds, proper tissue handling techniques, wound closure, wound healing, suture material, and stapling devices.

STS1308
Perioperative Patient Care Concepts
2.00 credits
This course will introduce the student to the needs of the surgical patient, with a focus on the special needs patient care concept, which includes adult, pediatric, geriatric, and bariatric patients. Discussion will also include types of consents, transportation and transfer of the surgical patient, preoperative patient routines, positioning, safety issues, and death and dying will be included.

STS1323
Surgical Procedures I
3.00 credits
This course is designed to prepare students for surgical procedures by providing instruction on diagnostic procedures and relevant equipment, supplies, and techniques. The course will also include the review of surgical anatomy, physiology, and pathophysiology in relation to general surgery, endoscopic surgery, gynecological and obstetrical surgery, genitourinary surgery, orthopedic surgery, and ophthalmic surgery.

STS1327L
Principles and Practices of Surgical Technology Laboratory
2.00 credits
This course is an introduction to surgical instrumentation, to include identification, classifications, selection, passing, proper care, and handling equipment and supplies. The course will include proper care, disinfection, assembly, and sterilization processes for instrumentation following surgical procedures. The decontamination of the operating room will be covered. Hands-on-experience in the Sterile Processing Department at local hospitals will be included in the course.

STS1925C
Endoscopy Technician Theory 1 and Lab
3.00 credits
Upon completion of the course, the student will have a basic understanding of the care and handling of endoscopic equipment, including storage, testing, decontamination, disinfection and preparation for use. Modules include anatomy and physiology review relevant to endoscopy procedures, essential communication, roles and responsibilities of the endoscopy team, equipment, risk management, safety, reprocessing/infection control, and emergency preparedness.

STS1926C
Endoscopy Technician Theory 2 and Lab
3.00 credits
Course is designed to prepare students for the role of Gastrointestinal (GI) technician regarding flexible endoscopic procedures including the specialties of gastroenterology and pulmonology.

STS1931
Surgical Technology Special Topics Seminar
3.00 credits
This course provides a review of all materials covered throughout the five-semester program. Certification examination process are covered. Employability skills are also covered.

STS2179
Surgical Biomedical Fundamentals
3.00 credits
This course teaches the skills necessary to function as a surgical technologist in the operating room including principles of aseptic technique, and a basic understanding of robotics and their use in the operating room setting. In addition, an understanding of the principles of physics and electricity as it relates to the operating room environment will be covered.

STS2324
Surgical Procedures II
3.00 credits
This course is designed to prepare students for specialty surgical procedures including the review of surgical anatomy, physiology, pathophysiology, relevant equipment, supplies, and techniques regarding otorhinolaryngological surgery (ear, nose, and throat/ENT), oral and maxillofacial surgery, plastic and reconstructive surgery, cardiothoracic surgery, peripheral vascular surgery, neurosurgery, transplant and trauma surgery. The depth of coverage is determined by the current edition of the core curriculum for surgical technologists published by the Association of Surgical Technologists.

STS2340
Surgical Pharmacology
3.00 credits
This course introduces general pharmacological concepts and principles in the management of patient care. Effective administration of therapeutic drugs, indications, and contraindications are discussed, including effects of medication on body systems, drug classifications and their principle action. Correct drug and dose identification is emphasized, including medications handled by the surgical technologist on the sterile field.

STS2360
Professional Skills for the Surgical Technologist
2.00 credits
This course will cover professional management, communication skills and teamwork, ethical and moral issues in the healthcare setting, and legal issues and risk management.

STS2944
Surgical Clinical I
3.00 credits
This course is the first in a series of three clinical courses. The course will introduce the student to the surgical clinical environment, provide the ability to begin utilizing skills acquired during previous lab courses, and implement the principles of aseptic technique while participating in the role of a surgical technologist.

STS2945
Surgical Clinical II
3.00 credits
This course is the second in a series of three clinical courses. In this course students will concentrate their clinical experience on circulating and scrubbing in on all phases of specialty surgical cases, assisting in the in the use of special instruments, procedures, and surgical equipment. The student will also focus on obtaining the required surgical cases in the appropriate role as a surgical technologist.

STS2946
Surgical Clinical III
3.00 credits
This course is the third in a series of three clinical courses. In this course students will concentrate their clinical experience on scrubbing in on general and specialty surgical cases, assisting in the use of special instruments, procedures, and surgical equipment. The student will also focus on obtaining the required surgical cases in the appropriate role as a surgical technologist.

Surveying

SUR1001C
Construction Survey
3.00 credits
Practice of surveying as related to the building and construction industry. Includes a combination of classroom instruction and practical field problems with the tape, level and transit. Prerequisite: MAC1114 or MAC 1147.

SUR1101C
Surveying 1
4.00 credits
The theories and practices in surveying and the use of the principal types of surveying instruments in horizontal and vertical planes. Problems include the measurement of distance; the use of compass, sextant, transit traverse, stadia, and basic mapping. Field and laboratory practice are required. Prerequisites MAC1114 or MAC1147.

Teaching English as a Second Language

TSL3080
ESOL in ECE I
3.00 credits
The student will learn to explore theories, research, and practices of English language learners, including legal issues that have influenced the field, first and second language acquisition, concepts of cultural competence and multiculturalism, and the implications of cultural and linguistic diversity in early childhood education. (Ten hours of clinical experience is required in an approved kindergarten-third grade inclusion classroom with ESOL students.). Pre/Co-requisites: EDF3115, EEC3301.

TSL3243
ESOL I: Second Language Acquisition, Communication, and Culture
3.00 credits
The student will learn to analyze and apply theories of first and second language acquisition, literacy development,

language and its structure, ways that diverse cultures and communication styles impact learning, and legal issues related to the education of culturally and linguistically diverse learners. Fifteen hours of clinical experience are required. Pre/Co-requisites: EDG3321, EEX3120.

TSL4310
ESOL in ECE II
3.00 credits
This second TESOL course addresses the application of theories, principles, and current research on curriculum, methods, and assessment in early childhood, as well as how these are designed for children who use non-standard dialects of English and/or are learning English as an additional language. The student will learn modifications appropriate for content area teaching and learning. (Ten hours of clinical experience in an approved first through third grade setting with ESOL students.). Prerequisites: EDF3115, EEC3301, EEX3226, TSL3080.

TSL4311
ESOL II: Teaching and Assessing ESOL Students
3.00 credits
The student will learn to apply TESOL instructional methods and strategies, as well as analyze, plan, design, and evaluate curriculum and materials. The student will select, develop and adapt assessment instruments, and examine standardized ESOL measurement tools.Fifteen hours of clinical experience are required.

TSL4324C
ESOL Strategies for Content Area Teachers
3.00 credits
The student will learn topics related to teaching content area subjects to English Language Learners. The student will plan and implement curriculum, instruction, and assessment activities to meet the needs of culturally and linguistically diverse learners. Fifteen hours of clinical experience are required. Pre/Co-requisites: EDG3321.

Theater Arts

THE2000
Theatre Appreciation
3.00 credits
In this course, students will explore dramatic structure, techniques, and various organizational elements. The course introduces theatre as a collaborative art form through the critical analysis of its historical context, production, theory, and connections to theatrical literature, including the Western canon. Student learning outcomes: students will identify the basic principles of theatrical performance, design, technology, organization, and management; students will assess the significance of the human condition as expressed through the performing arts; students will explore and interpret works of art utilizing creative and critical thinking skills; students will demonstrate college-level writing; and students will define, compare and contrast theater as both an expressive art form and a commercial industry. Writing Intensive Course.

THE2083
Theatre Problems
1.00 - 3.00 credits
This is an advanced course for theatre majors who have already earned credit in a required subject or who have demonstrated that they are capable of advanced, highly specialized work in a particular area of requirements and objectives. Possible areas of study include advanced scene work; intensive training in particular acting methods; playwriting; and directing. Students are assigned to a teacher, who will design, supervise, and evaluate their projects. May be repeated for credit.

TPA1200
Stagecraft
3.00 credits
A basic study of technical theatre practices with emphasis on scenery construction, rigging and prop construction. This course may be taken concurrently with TPP 1110.

TPA1232
Theatre Costuming
3.00 credits
An introduction to three basic areas of concentration in costuming history of dress, design concepts, and building techniques.

TPA1248
Makeup for the Stage
3.00 credits
An introduction to the art and techniques of makeup as used by the actor, theatrical designer, and technician. Special emphasis is given to straight makeup, age makeup, hair, character extension, and stylization.

TPA2233
Main stage Production-Costumes & Makeup
1.00 credits
Practical experience in theatrical costuming and makeup through participation in a major theatrical production. May be repeated for credit. Prerequisite: Permission of department chairperson.

TPA2292
Production Lab
1.00 - 3.00 credits
Students will be provided with hands-on experience in theatre technology and production, including lighting; the construction of scenery; stage make-up; costume construction; actual production management; properties construction and organization; sound production; recording, editing, and operation; and house management during actual performances. Required of all first-year students.

TPA2600
Introduction to Stage Management
3.00 credits
Introduction to Stage Management is designed to familiarize the student with the role of the stage manager in the theatre. Concepts covered includes: blocking, note taking, cue calling and company relation skills. Prerequisites: TPA 1200, 1220.

TPP1100
Acting 1
3.00 credits
The fundamentals of stage performance, stressing voice, movement, and the more formal and technical aspects of the actor's art. May be repeated for credit.

TPP1110
Acting 1
3.00 credits
Continuation of TPP 1100. Prerequisite: TPP 1100.

TPP1120
Improvisation Ensemble
3.00 credits
The student will develop the skills of improvisation for use in role development and for performance.

TPP1150
Scene Study 1
3.00 credits
This course teaches the aspiring young theatre professional how to analyze a play in terms of the author's personal statement, the historical and social context within which it was written, the particular style used by the author, and the many options open to director and actor for bringing the work to stage life. A substantial portion of class time will be devoted to oral reading and interpretation of text.

TPP1160
Voice & Movement 1
3.00 credits
An intense two-semester course designed to train the acting student in specific techniques of voice production, vocal range and control; to add flexibility and suppleness to body movement, so that the actor becomes free to concentrate on the task of building a character. Each participant is evaluated at the beginning in relation to voice and movement levels of professional acceptability and expected to demonstrate measurable growth in a personalized program.

TPP1161
Voice & Movement 1
3.00 credits
Continuation of TPP 1160. Prerequisite: TPP 1160.

TPP1170
Beginning Characterization
3.00 credits
A course which builds upon the centered foundation of creating a role developed in TPP 1100 and TPP1110. The student uses a subjective approach to creating a character which differs from him/her physically, culturally and psychologically. He/she attempts ever greater degrees of transformation. Prerequisite: TPP 1110.

TPP1190
Studio Theatre-Cast
1.00 credits
Practical application of skills acquired in acting classes through public presentation of student-produced studio theatre as a member of the cast. May be repeated for credit. Prerequisite: Permission of department chairperson.

TPP1250
Musical Theatre 1
3.00 credits
The study and performance of musical comedy excerpts with special attention to stage movement, acting and characterization as related to musical production. May be repeated for credit. Prerequisite: Permission of department chairperson; corequisite: previous or current enrollment in Voice Techniques and Jazz Techniques classes.

TPP1260
Acting for Camera 1
3.00 credits
Acting students will learn to acquire the technical knowledge and training necessary for acting in the film and television industry. Students will also acquire knowledge of the working procedure used in this media.

TPP1606
Playwriting 1/2
3.00 credits
The process of exploring playwriting styles and techniques is continued. A one-act play of significant length and complexity will be the semester project.

TPP1700
Voice for the Stage
3.00 credits
The study and application of voice production, breathing, articulation, accents and movement in the actor's delivery. Emphasis is on clarity, precision, properly phrased and meaningful communication from the performer to the audience.

TPP2111
Acting 2
3.00 credits
In this course, actors who have learned to express themselves freely now learn to adjust this expression to the demand of the role. Students begin to apply their skills for observation, imagination, and concentration to the study of roles close to themselves. Vocal and physical flexibility and expressiveness are now put to work in the realization of expectations of the playwright, here the student develops a systematic approval to creating a three-dimensional character.

TPP2112
Acting 2
3.00 credits
Emphasis on building a characterization. The art of improvisation, with reference to its function in the preparation of a role, is included. Prerequisite: TPP 1110.

TPP2151
Advanced Scene Study
3.00 credits
In this course the theatre student learns to analyze plays with a heavy focus on particular characters and major scenes. Emphasis will be placed on works of prime importance in the history of the theatre, both past and present, so that the aspiring actor can begin to experience some of the problems involved in approaching a significant role. Each student is required

to research the performance history of the roles and scenes studied as well as to uncover the subtexts and the inner line of character development. Attention will be given to both Stanislavsky and improvisation techniques as methods by which the actor comes closer to the full reality of a part. May be repeated for credit.

TPP2152
Scene Study 3
3.00 credits
This course is the culmination of a sequence. In it the advanced acting student learns how to analyze the longer one/act or shorter full-length play and to develop the through-line of one character as a preparation for an in-class performance. The student also learns how to work with the director and to relate acquired acting techniques to the stylistic requirements of a given script.

TPP2162
Voice & Movement 2
3.00 credits
An intense two-semester course in precision techniques of voice production and bodily flexibility integrating them with specific acting exercises with an emphasis on demonstrating the automatic, nonconscious application of acquired voice and movement skills. Prerequisite: TPP 1161.

TPP2163
Voice & Movement 2
3.00 credits
Continuation of TPP 2162. Prerequisite: TPP 2162.

TPP2191
Main stage Production - Cast
1.00 - 3.00 credits
Participation in a major theatrical production as a member of the cast. Main stage productions will be presented publicly to the student body and community. May be repeated for credit. Prerequisite: Permission of department chairperson.

TPP2256
Musical Theatre 2
3.00 credits
A continuation of TPP 1250 in which the student is expected to develop further the performing skills of singing, dancing, and acting.

TPP2260
Acting for the Camera 1
3.00 credits
Acting students will attend lecture/lab to acquire the technical knowledge and training necessary for acting in the film and television industry. They will acquire a knowledge of the working procedure and terminology used in these media. Prerequisite: TPP 1100 or permission of the instructor.

TPP2300
Introduction to Play Directing
3.00 credits
Introduction to the basics of play directing, composition, picturization, business and movement. The course will offer the student a method of analysis and rehearsal scheduling. Prerequisite: TPP 1110 and TPA 1200.

Transportation and Traffic Management

TRA1410
Introduction to Rail Freight Operations
3.00 credits
This is an introductory course in Rail Freight Operations. Students will learn the advantages and disadvantages of freight movement by rail, how rail lines are organized and operate, including the use of intermodal transfer facilities and on-dock rail. Topics include shipping documents, shipment tracking, management of human resources and equipment, and an overview of hazardous materials shipments and security issues. Co-requisites: TRA1420, 1430.

TRA1420
Introduction to Trucking Operations
3.00 credits
This is an introductory course in Trucking Operations and the movement of goods via highways and roadways. Students will learn U.S. Department of Transportation requirements, documents for shipping, vehicle and shipment tracking, scheduling, management of human resources and equipment, just-in-time implications and integration with other transportation modes. Hazardous materials shipments and security issues will be discussed. Co-requisites: TRA1410, 1430.

TRA1430
Introduction to Port Freight Operations
3.00 credits
This is an introductory course in Port Freight Operations. Students will learn how Seaports and Inland Ports are organized and operate, how freight is moved domestically and internationally, including the integration of port operations with other modes of transportation. Topics include break-bulk handling during loading, discharging, in-transit carriage, on-dock rail, harbor drayage, equipment and cargo management, and an overview of hazardous materials shipments and security. Co-requisites: TRA 1410, 1420.

TRA2010
Introduction to Transportation and Logistics
3.00 credits
This course surveys the organization and operations of the commercial transportation industry and its impact on the bottom line of today's modern businesses. Students will learn to review regulations and processes affecting transportation and logistics functions as well as explore the industry job market and look at technologies and current issues shaping transportation and logistics. A.S. degree only.

TRA2156
Operations Management for Transportation
3.00 credits
This course includes the skills necessary for a supervisory role in logistics. Students will learn the roles and responsibilities in managing different types of transportation operations. Topics include human resources, design and management of production operations, productivity, capacity planning, resource management, just-in-time systems, hazardous materials management, planning and project management. Prerequisite: MAN2021.

TRA2321
Transportation Public Policy, Law, and Regulations
3.00 credits
Students will learn the transportation regulatory environment including the various levels of government regulations. Review of security, environmental requirements, regulatory research and labor laws are also covered. Prerequisite: TRA2010.

TRA2402
Intermodal Transportation Operations and Project Management
3.00 credits
Students will learn the fundamental elements necessary to plan, implement and control efficient and market-responsive integrated transportation systems. Topics include strategic, operational, and project management roles of transportation in supply chains. Emphasis is placed on services pricing, carrier selection, equipment and shipment planning, intermodal operations, financial/budgetary constraints, security and distribution services. Prerequisites: AVM2120, TRA2010. Co-requisites: TRA1410, 1420, 1430.

TRA2702
International Logistics and Transportation
3.00 credits
International logistics concerns the flow of materials into, through and out of an international corporation as it relates to materials management, storage, inventory locations, physical distribution and documentation. This course will emphasize international transportation infrastructure and modes such as ocean, airfreight, intermodal movement, truck and rail. Choices among these modes will be explored considering such factors as transit time, packaging, risks, predictability and cost. The roles of freight forwarders and custom brokers in moving international cargo and operation of foreign trade zones will be discussed. Prerequisites: TRA 2010, 2321.

TRA2945
Transportation & Logistics Capstone I
1.00 credits
In this Transportation & Logistics Capstone course, students will learn to incorporate the major concepts presented in the transportation courses through the application of special projects, internship and/or examination. The course will assess the students understanding of major concepts in transportation and logistics. Prerequisites: Departmental Approval & Completion of the Program Core Requirements.

TRA3034
Transportation and Traffic Management
3.00 credits
This course covers developments leading to national and federal regulations, division of territories, official descriptions, etc. Students will learn the scope of authority of territorial associations, factors controlling traffic flows, basic governing classification rules, principals of freight rates and tariffs, and elements of rate making. Prerequisites: MAN 2021 and TRA 1154.

TRA3132
Purchasing and Inventory Management
3.00 credits
This course provides a comprehensive introduction to the purchasing/procurement and supply chain management field. Students will learn purchasing and supply chain issues in a variety of settings, from process industries to high tech manufacturing and services as well as public institutions. Emphasis is on the purchasing process as it relates to such topics as inventory control procedures, price/cost analysis, laws and ethics, negotiations, vendor selection and the development of vendor relationships. Prerequisites: MAN 2021 and TRA 1154.

TRA4234
Warehouse Management
3.00 credits
Students will learn warehousing functions, facility operations, and operational productivity improvements and measurements with the inclusion of concepts from marketing, finance, statistics, operations management, and human resources. The course presents an integrated business approach to the detailed operational aspects of logistics facilities such as warehouse and distribution centers. The course will use real-world warehouse data to design the layout and operations requirements for a local warehousing facility and to identify the operational equipment used in warehousing. Prerequisites: MAN 2021, 3065, QMB 2100, and 2100L.

Travel Industry Management

HFT1454
Food and Beverage Cost Controls
3.00 credits
Covers the principles and procedures involved in an effective food and beverage control system, including standards determination, the operation budget, income and cost control, menu pricing, and computer applications.

HFT1949
Co-op Work-study Internships I
3.00 credits
This is a course designed to continue training in student's fields of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-op department

approval. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Cooperative Education Office to obtain registration approval. A.S degree only.

HFT2949
Co-op Work-study Internships 2
3.00 credits
In this intermediary course the student will continue learning and training in students' field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-op department approval and completion of 1949 Co-op work experience. In addition to the above the student keep a portfolio of required materials that they obtain during the course of their study.

Vision Care Technology/Opticianry

OPT1110
Physical & Geometrical Optics
4.00 credits
Behavior of light energy as it passes through air, plastic, glass and water with emphasis on how light is modified by prism and curved lens surfaces. These principles relate to the effect these ophthalmic devices have in correcting the errors of human vision. Corequisite: OPT 1205, 1330.

OPT1150
Ophthalmic Lenses
2.00 credits
Characteristic of unifocal and multifocal lens reference points for proper lens selection to meet visual needs of the patients. Emphasis is on accurate positioning of the optical centers and selected multi-focal addition design. ANSI and FDA standards; prescription ordering; verification procedures; absorptive lenses; and invisible and progressive multi-focals are presented. Prerequisites: OPT 1110, 1205.

OPT1205
Ocular anatomy, Physiology & Pathophysiology
3.00 credits
The structure and function of the systems of the human body, emphasizing the anatomy, physiology and pathophysiology of the human eye. Visual recognition of common eye disorders is also discussed. Corequisite: OPT 1330.

OPT1330
Clinical Data Collection 1
2.00 credits
Techniques necessary in a clinical environment for the collection of patient case history, entrance visual acuity, basic visual skills of ocular mobility and accommodation, color discrimination, depth perception and binocular fusion. Emphasis is also placed on gaining familiarity with the medical terminology as it relates to the visual system. Corequisites: OPT 1110, 1205.

OPT1331
Clinical Data Collection 2
2.00 credits
Techniques necessary in a clinical environment for the collection of subjective and objective patient diagnostic information including visual field plotting, tonometry, lensometry, keratometry, and sphugmomanometry. Prerequisites: OPT 1330, 1331L.

OPT1331L
Clinical Data Collection 2 Laboratory
1.00 credits
Laboratory for OPT1331 in which students are under the supervision of a licensed practitioner. Prerequisite: OPT 1330; Corequisite: OPT 1331.

OPT1450
Ophthalmic Dispensing Procedures 1
1.00 credits
Basic procedures of ophthalmic dispensing such as frame selection, measurement and laboratory ordering. Emphasis will be placed on common ophthalmic frame materials; crown glass and CR-39 lenses; absorptive lenses; and frame alignment, adjustment and repair. The student will demonstrate skills necessary for entry level ophthalmic dispensing in Vision Care Clinic. Prerequisite: OPT 1110, 1205, 1330; Corequisites: OPT 1450L.

OPT1450L
Ophthalmic Dispensing Procedures 1 Laboratory
1.00 credits
Laboratory for OPT 1450. Prerequisite: OPT 1110, 1205, 1330; Corequisite: OPT 1450.

OPT2060
Ophthalmic Management Policy & Procedures
2.00 credits
Procedures and terminology used in the handling of patients, correspondence, legal and ethical principles, inter- and intra-professional relationships, and office management. Develop feasibility report of opening a retail ophthalmic dispensary. The history of opticianry, optometry and ophthalmology is traced. Special emphasis is on a comprehensive review of the curriculum. Prerequisite: OPT 2801L; Corequisite: OPT 2802L.

OPT2070L
Computers for Vision Care
1.00 credits
This course introduces students to the use of computers in ophthalmic practice. Students will learn computer basics and the use of application software for maintaining patient records and billing. Elements of ophthalmic coding are included. Prerequisite: OPT 1110, 1205, 1330; Corequisite: OPT 1331, 1331L.

OPT2375
Refractometry
1.00 credits
Students will learn the basic principles of refractometry, theoretical aspects of retinoscopy, and the use of cross cylinders. Students will be able to describe various refractive problems and their solutions. Prerequisites: OPT 1150, 1205, 1331, 1331L; corequisite: OPT 2375L.

OPT2375L
Refractometry Laboratory 1
1.00 credits
Students will practice theoretical concepts of refractometry using a retinoscope, auto-refractor, and cross cylinders in a laboratory setting. Prerequisites: OPT 1205, 1331, 1331L; corequisites: OPT 2375.

OPT2376L
Refractometry Lab 2
1.00 credits
This course is designed to provide the student with the hands on experience of hand neutralizing a pair of glasses, retinoscopy, and the use of the phoropter and the Snellen chart.

OPT2377L
Refractometry 3 Laboratory
1.00 credits
This laboratory course will continue to advance the skills already introduced in the previous laboratories 1 & 2. The improved skills will enhance the student's ability to determine the refractive status of the eye and be able to practice these skills on patients in the clinic. Prerequisite: OPT 2376L.

OPT2420
Eyewear Fabrication 1
2.00 credits
Theory of ophthalmic surfacing procedures. Students acquire knowledge to arrange single vision lenses; use lensometers and lens clock; operate project-o-makers for single vision lens layout; select or fabricate frame patterns; and utilize several systems for edging lenses for ophthalmic frames. Prerequisite: OPT 1110; Corequisites: OPT 2420L.

OPT2420L
Eyewear Fabrication 1 Laboratory
1.00 credits
Laboratory for OPT 2420. Prerequisite: OPT 1110; Corequisite: OPT 2420.

OPT2421C
Eyewear Fabrication 2
3.00 credits
Advanced techniques in measurement, fabrication, and verification of unifocal and multifocal lenses. Students fabricate finished eyewear from written specifications ensuring that current ANSI and FDA standards are exceeded. Prerequisites: OPT 2420, 2420L.

OPT2422C
Eyewear Fabrication 3
3.00 credits
A continuation of OPT 2421. Theory of evaluation and analysis of eyewear for accuracy and quality. Advanced techniques in operation of automated lens analyzer and lens edger's, and maintenance of equipment. Prerequisites: OPT 2421C.

OPT2451
Ophthalmic Dispensing Procedures 2
1.00 credits
Theory and terminology of advanced ophthalmic dispensing. Emphasis will be placed on new technology in ophthalmic frame materials; multifocal lenses including progressive power and blended bifocals; and high index lenses. The process of analyzing the patient's specific needs for the proper frame and lens selection is highlighted. Prerequisites: OPT 1450, 1450L; corequisite: OPT 2451L.

OPT2451L
Ophthalmic Dispensing Procedures Laboratory
1.00 credits
Laboratory for OPT 2451. Prerequisite: OPT 1450, 1450L; Corequisite: OPT 2451.

OPT2505
Contact Lenses 1
3.00 credits
Basic principles of contact lens fitting, emphasizing soft lenses. Topics include lens-relate terminology, anatomy and physiology, patient examination, soft lens materials, design, parameters, handling, fitting and care. Includes introduction to rigid lenses. OPT 1110, 1205.

OPT2506
Contact Lenses 2
2.00 credits
Principles of contact lens fitting, emphasizing rigid lenses. Topics include materials, design parameters, verification, handling, fitting and care. Considers advanced and specialty design and ocular complications. Prerequisite: OPT 2505; Corequisite: OPT 2506L.

OPT2506L
Contact Lenses 2 Lab
1.00 credits
Practical procedures designed to apply technical skills of contact lens application and removal, verification of the contact lens prescription, modification of hard and hard gas permeable contact lenses, and other skills discussed in previous lecture coursework. Prerequisite: OPT 2505; corequisite: OPT 2506.

OPT2800L
Vision Care Clinic 1
2.00 credits
Introductory clinic designed to apply technical skills acquired in previous course work. Recording of clinical data, administrative procedures and techniques in patient handling under close staff supervision. Prerequisites: OPT 1150, 1331, 1331L, 1450, 1450L, 2070L.

OPT2801L
Vision Care Clinic 2
4.00 credits
Development of skills in patient reception, clinical data collection, assisting clinician, and ophthalmic dispensing. This is an opportunity to follow the patient through the entire cycle of vision care under close supervision of the clinical staff. Prerequisite: OPT 2375, 2375L, 2800L, .

OPT2802L
Vision Care Clinic 3
4.00 credits
Development of additional skills in visual fields, tonography, ocular photo documentation, vision therapy/orthoptics, low vision, aseptic techniques, eye emergencies, and assisting in triage and laboratory diagnosis of external eye disease. On and

off-campus clinics will be utilized under the close supervision of optometrists and ophthalmologists. Prerequisite: OPT 2801L.

OPT2830C
Contact Lenses Clinic 1
2.00 credits
Observe and assist an optometrist in the initial fitting and follow-up care of rigid and soft contact lenses for patients referred from the Vision Care Clinic when conventional eyewear will not suffice. Familiarization with the instructions for lens handling, cleaning, care and storage of contact lenses. Prerequisites: OPT 1331L, 2070L, 2375, 2375L, 2506, 2506L.

OPT2831L
Contact Lenses Clinic 2
1.00 credits
Use of the soft contact lens instruments to confirm all the parameters for replacement lens. Particular attention is devoted to the patient that is having problems with contact lenses after long-term wear due to corneal changes and sensitivity to solutions under direct supervision of an optometrist. Prerequisite: OPT 2830C.

OPT2875L
Ophthalmic Dispensing Practicum 1
2.00 credits
Externship in an approved finishing laboratory of a retail ophthalmic dispensing establishment. The student will gain a working knowledge of ophthalmic frame and lens stock, inventory system, layout and blocking, chemical and heat treating, edging, tinting assembly and alignment of eyewear according to the written prescription. Prerequisites: OPT 2375L, 2420, 2420L, 2451, 2800L; Corequisite: OPT 2801L.

OPT2876L
Ophthalmic Dispensing Practicum 2
2.00 credits
Externship in an approved retail ophthalmic dispensing establishment in the area of frame styling, ordering of appropriately designed lenses, adjustment, repair and dispensing of eyewear. The student will gain a working knowledge of administrative management procedures of the practice. Prerequisite: OPT 2875L.

Educator Preparation Institute

EPI0001
Classroom Management
3.00 credits
The student will learn how to plan, intervene, and evaluate behavior management strategies that create a positive P-12 learning environment that is requisite to increase student learning. The student will learn to apply the student code of conduct, as well as match disciplinary action to undesirable behaviors which impede the teaching and learning process. Ten hours of clinical experience are required.

EPI0002
Instructional Strategies
3.00 credits
The student will learn to connect human developmental theories and current educational neuroscience research to the planning of instructional activities for students in P-12 settings. The student will learn to apply varied teaching strategies, develop questions that address all levels of the cognitive domain, create lesson plans to include objectives, anticipatory set, practice, and assessment, as well as to research professional literature to hone the craft of effective teaching. Pre-requisites: EPI0001, or an equivalent course.

EPI0003
Technology
3.00 credits
The student will learn about the historical, legal, and developmental implications of utilizing instructional technology to teach P-12 students. Students acquire knowledge regarding Assistive Technology and will integrate Assistive Technology to meet the needs of students with special educational needs. Students will select the best technology applications for the classroom. The student will apply current research to teaching and learning with technology when planning learning activities. Pre-requisites: EPI0002

EPI0004
The Teaching & Learning Process
3.00 credits
The student will learn the philosophies of major educational theorists and the application to the P-12 teaching and learning process. The student will learn to develop lessons which include tier-based instruction, strategies for enrichment and differentiation, as well as differentiated and alternative assessments. The student will learn to develop his/her own philosophy of education. Ten hours of clinical experience are required. Prerequisites: EPI0002

EPI0010
Foundations of Research-Based Practices in Reading
3.00 credits
The student will learn about the reading process and reading instruction from P-12. In addition, the student will examine educational neuroscience research related to the reading process, as well as research-based approaches and theories related to all components of the reading process: phonemic awareness, phonics, vocabulary, fluency, oral language, and comprehension. An assessment of the students teaching performance will be conducted. Content covers Competency 2 and 4 of the 2010 Reading Competencies. Fifteen hours in the clinical setting are required. Pre-requisites: EPI0001, and EPI0002, and EPI0004

EPI0020
Professional Foundations
1.00 credits
The student will learn to evaluate his/her role as a productive member of the teaching profession. The student will learn to reflect on his/her development and mastery of the Pre-Professional Florida Educator Accomplished Practices during the completion of the Clinical Education experience in a P-12 classroom setting. Pre-requisites: EPI0002

EPI0030
Maximizing Student Potential in the School Context
2.00 credits
This course focuses on effective strategies for identifying and meeting the varied learning needs of students in the classroom. Students will examine teaching practices, legal and ethical responsibilities, and assessment methods to ensure all learners are supported in Florida's state academic standards. This course covers approaches to differentiated instruction, fostering effective learning environments, and utilizing assessment data to guide instructional decisions. Students will also learn how to collaborate with families and communities to support student learning. Through reflective practice, students will develop actionable plans to enhance teaching performance that improves learner outcomes. Prerequisite: EPI0002.

EPI0940
Field Experience II
2.00 credits
The student will observe effective teaching/learning techniques in P-12 settings with diverse learners to collect and analyze observational data, and also plan/implement teaching strategies that meet the individual needs of all learners. A formal observation/assessment of the students teaching performance will be conducted. Thirty hours in a clinical setting is required. Pre-requisites: EPI0001, and EPI0002, and EPI0003, and EPI0010, and EPI0030

EPI0945
Field Experience I
1.00 credits
The student will observe effective teaching/learning techniques in P-12 settings with diverse learners to collect and analyze observational data, and also plan/implement teaching strategies that meet the needs of all learners. A formal observation/assessment of the students teaching performance will be conducted. Fifteen hours in a clinical setting are required for successful completion of this course. Pre-requisites: EPI0001, and EPI0002, and EPI0004, and EPI0010, and EPI0030

CAREER TECHNICAL COURSES

Miami Dade College Career Technical Certificate programs are designed for immediate job entry.The career technical courses are listed in alphabetical order according to prefix and number (or suffix).

Automotive Mechanics

AER0605
Tesla Electronic System Technician
13.25 Credits
This course prepares the student to apply technical knowledge and skills to repair, service, and maintain Tesla vehicles. At the end of the course, the student will be able to diagnose malfunctions in and repair electrical, charging, penthouse, driver assist and infotainment systems and components.Co-Req:AER 0606.

AER0606
Tesla Maintenance Technician
13.25 Credits
This course prepares the student to apply technical knowledge and skills to repair, service, and maintain Tesla vehicles. The student will learn Tesla's products and diagnostic tools, as well as safety equipment and procedures. At the end of the course, the student will be able to diagnose malfunctions in and repair HVAC, brake, and chassis systems and components. Co-Req:AER 0605.

Aviation Maintenance Technology

AMT0044
Tools, Materials, and Processes 1
1.33 credits
This course provides an introduction to the tools, hardware and material used in aircraft maintenance, repair, and safety. The student will be able to understand the information found in aircraft drawings, blueprints, charts and graphs Including stress materials' internal resistance and counterforce that opposes deformation.

AMT0045
Tools, Materials, and Processes 2
1.33 credits
In this course, the student will learn the principles of corrosion and how to control it are studied and applied. This course provides experience in detecting, identifying, removal, and treatment of the various types of corrosion found on ferrous and non-ferrous metals. In addition, the student will learn about various forms of truss-types and how beams, struts, and bars resist deformation by applied loads.

AMT0046
Aircraft Materials, Hardware & Processes
2.26 credits
In this course, the student will learn about chemical processes, hazards of aviation solvents, lubricants, effects of corrosion on metals and aluminum, and measuring and sheet metal layout. Prerequisites: AMT 0044 and AMT 0045..

AMT0047
Applying the Design Process
1.76 credits
In this course, the student will learn to create aircraft drawings, blueprints, charts and graphs; test equipment, including non-destructive inspection and testing; and determine best practices with respect to sealants and epoxies. Prerequisites: AMT 0044 and AMT 0045.

AMT0219
Aircraft Hydraulics & Aviation Mathematics
0.63 credits
In this course, the student will learn about aircraft hydraulic and pneumatic systems and advanced aviation mathematics. Prerequisites: AMT 0044 and AMT 0045.

AMT0269
Aircraft Electrical Systems & Quality Control
2.13 credits
In this course, the student will learn the principles of basic electricity as it relates to aviation electrical systems; work with data, including computer-generated flow diagrams and spreadsheets; working with wiring & fiber optics; advanced blueprint reading with respect to performing actual tasks; and key elements of quality control. Prerequisites: AMT 0044 and AMT 0045.

AMT0509
Composites and Capstone Project
0.40 credits
In this course, the student will learn about composite materials. In addition, the student will demonstrate their competence to analyze, design, develop, and test Aircraft Structural Assembly and Fabrication techniques. Prerequisites: AMT 0044, 0045, 0046, 0047, 0219, 0269.

AMT0949
On the Job Training (OJT)
133.33 credits
In this training course, the student will learn to perform the required tasks at the work place. This course adds a diversified experience and abilities while enriching the self- acquired proficiency of the student. Training is designed to minimize the margin of errors at the workplace.

Computer Science & Related Technologies

EEV0162
Low Voltage Technician 1
5.0 credits
This course is an overview of the trade with an introduction to construction safety and hand and power tools used in the construction industry. Students will learn basic written and verbal communication skills, basic mathematics, construction methods and techniques, building codes, and how to read construction drawings. Prerequisite: TABE test.

EEV0163
Low Voltage Technician 2
5.0 credits
This course focuses on alternating current (AC) and direct current (DC) circuits and electronic devices, including an overview of applicable test equipment, cable and terminations used in the installation of low-voltage systems. Further instruction on specific trade-related drawings, codes and standards will be discussed. OSHA 10 or OSHA 30 Construction Industry training will be provided.

EEV0164
Low Voltage Technician 3
5.0 credits
This course is an overview of audio, video, broadband, media management, telecommunication systems, and residential/commercial building networks.

EEV0165
Low Voltage Technician 4
5.0 credits
This course is an overview of audio, video, broadband, media management, telecommunication systems, and residential/commercial building networks.

EEV0166
Low Voltage Technician 5
5.0 credits
This course is an overview of intrusion detection, fire alarm systems, fiber optics, nurse call, CCTV, and access control systems.

Criminal Justice & Related Technologies

CJK0002
Introduction to Law Enforcement
0.40 Credits
In this course students will learn to communicate effectively using empathy, courtesy, and professionalism while serving the community. The student will be able to understand the importance of self-talk and self-awareness in preparation for using the core communication competencies. For School of Justice students only.

CJK0016
Communications
0.80 Credits
In this course students will learn to communicate effectively using empathy, courtesy, and professionalism while serving the community. The student will be able to understand the importance of self-talk and self-awareness in preparation for using the core communication competencies. For School of Justice students only.

CJK0018
Legal
2.13 Credits
In this course students will learn legal rules and concepts, amendments, and law. The student will learn the basics of law, civil and criminal liability. For School of Justice students only.

CJK0019
Interviewing and Report Writing
1.86 Credits
The student will learn note-taking, interviewing, elements and principles of effective report writing. The student will also learn to take statements from victims, witnesses, and suspects; write clear

concise and accurate incident and arrest reports. For School of Justice students only.

CJK0020
CMS Law Enforcement Vehicle Operations
1.60 credits
Students will learn the physiological and psychological factors affecting vehicle operations. This course stresses the importance of vehicle maintenance, environmental conditions affecting driving, and elements of basic driving skills including skids and other causes of accidents. Students will demonstrate hands-on basic driving skills. For School of Justice students only.

CJK0021
Serving Your Community
1.13 credits
The student will learn a community's relationship with law enforcement can greatly impact how law enforcement officers do their jobs. Students will also learn how to respond to people in crisis and high risk

CJK0031
CMS First Aid For Criminal Justice Officers
1.33 credits
Students will learn to initiate treatment for a variety of medical emergencies, understand and perform CPR, and know when to activate EMS and perform basic life support until help arrives. CPR and First Responder certification cards are issued upon successful completion. This course prepares criminal justice recruits for a variety of medical emergencies with minimal medical supplies. Basic training for School of Justice students only.

CJK0040
CMS Criminal Justice Firearms
2.66 credits
Students will learn how to use both handguns and shotguns. Students must qualify with both weapons under both daylight and night conditions. Students must also demonstrate ability for both accuracy and decision making. Students are also introduced to chemical weapons and their effects.

CJK0051
CMS Criminal Justice Defensive Tactics
2.66 credits
Students will learn how to physically defend themselves, physically control persons under arrest, and know what level of force is appropriate under differing circumstances. Additionally, a physical conditioning program is part of this course. For School of Justice students only.

CJK0063
Fundamentals of Patrol
1.33 Credits
The student will learn law enforcement techniques and tactics that you will use while on patrol. The student will also learn how to respond to non- criminal calls and conduct structure and area searches, and provides resources that officers use while on patrol. For School of Justice students only

CJK0072
Crimes Against Persons
1.60 Credits
The student will learn to conduct an investigation with attention to accuracy, detail, and professionalism. The student will learn to identify and respond to different types of crimes against persons. For School of Justice students only.

CJK0073
Crimes Involving Property and Society
0.40 Credits
The student will learn the different types of crimes such as theft, burglary, white collar crimes and animal cruelty. The student will also learn about loitering, disorderly behavior, illicit drugs and vice crimes. For School of Justice students only.

CJK0079
Crime Scene Follow-up Investigations
1.13 Credits
The student will learn evidence rules and concepts, securing the crime scene and documentation and handling procedures. The student will also learn follow up and review of initial information procedures and how to prepare for court. For School of Justice students only.

CJK0093
Critical Incidents
1.46 Credits
The student will learn about events that can put lives at risk and cause major damage to property and the environment. The student will also learn about the causes of these events and how an effective response can affect a community's ability to recover from an event. For School of Justice students only.

CJK0096
Criminal Justice Officer Physical Fitness Training
2.00 credits
The student will learn the benefits of maintaining physical fitness to include nutrition ad diet. The student will also learn the effects of and how to deal with stress, how to build up muscular and cardiovascular endurance and perform the exercises as required. For School of Justice students only.

CJK0132
Basic Security Guard Training
1.40 credits
This course is designed to prepare students to apply for Class "D" Private Security Officer license. Students will learn regulatory compliance, emergency procedures, ethics and entrepreneurship, courtroom procedures, traffic direction and crowd control, and more.

CJK0300
Introduction to Corrections
1.06 credits
The student will learn the responsibilities of a correctional officer to provide safety for him/herself, public, staff, and inmates.

The student will learn an overview on safety and security concerns, identification, manipulation and deception, contraband, and searches in a correctional setting. This course is for School of Justice students only.

CJK0305
CJSTC Communications
1.33 credits
Students will learn practical communication skills that will assist new correctional officer in managing and supervising inmates, giving directions, answering questions, and interacting with others in a professional and safe manner. For School of Justice students only.

CJK0310
Officer Safety
0.53 credits
The student will learn the responsibilities of a correctional officer to provide safety for him/herself, public, staff, and inmates. The student will earn an overview on safety and security concerns, identification, manipulation and deception, contraband, and searches in a correctional setting. This course is for School of Justice students only.

CJK0315
Facility and Equipment
0.26 credits
Correctional officers are responsible for equipment and materials used to keep correctional facilities clean, safe, and secure. The student will learn basic knowledge of standard equipment used to support the safe and efficient operation of equipment, and to provide a safe environment for inmates, staff, and visitors. This course is for School of Justice students only.

CJK0320
Intake and Release
0.60 credits
Students will gain the knowledge of facility policies and procedures, state laws, and legal guidelines. The student will learn intake, classification, and release processes that include verification of identity, required documentation, person and property searches, property inventory, fingerprinting, photographing, assessing custody levels, assigning housing, and releasing of inmates. For School of Justice students only.

CJK0325
Supervising in a Correctional Facility
1.33 credits
The student will develop supervisory and observational skills. The student will learn to ensure the safe operation of a correctional facility while fulfilling his or her responsibilities. For School of Justice students only.

CJK0330
Supervising Special Populations
0.66 credits
Students, as correctional officers, will learn to interact with a variety of individuals who have been grouped together such as gang members, substance abusers, mentally ill, elderly and disabled inmates. Students will learn to be aware of special populations and respond appropriately when interacting with and supervising them. For School of Justice students only.

CJK0335
Responding to Incidents and Emergencies
0.53 credits
Correctional officers are expected to apply knowledge, training, and reasonable judgment to ensure the safety and security of all persons at the facility during an emergency. The student will learn to be effective in the use of equipment, crime scene control, chain of custody procedures, and documentation in any incident/emergency. For School of Justice students only.

CJK0340
Officer Wellness and Physical Abilities
1.00 credits
Students will learn the benefits of maintaining physical fitness to include nutrition and diet. Students will learn of the effects of stress and how to deal with it; how to build up muscular and cardiovascular endurance and perform the exercises as required. For School of Justice students only.

CJK0400
Traffic Incidents
0.40 credits
The student will learn the necessary information about traffic statutes and procedures and will lay the foundations for the practice of excellent traffic enforcement. The student will learn all aspects of law enforcement related to traffic enforcement, vehicles, roadways, and pedestrians. For School of Justice students only.

CJK0401
Traffic Stops
0.80 credits
The student will learn the goal of every traffic stop is to promote driver education and safer roadways. The student will also learn to exercise procedural justice and remain professional at all times when issuing a uniform traffic citation or warning, making an arrest, or finding that someone needs help. For School of Justice students only.

CJK0402
Traffic Crash Investigations
1.00 credits
The student will learn about conducting a traffic crash investigations using a systematic approach. The student will learn about responding to, assessing, and protecting the scene; gathering information and evidence, documenting a crash. For School of Justice students only.

CJK0403
DUI Traffic Stops
0.80 credits
The student will learn how a driver that is under the influence of drugs or alcohol pose a hazard to themselves and others. The student will also learn how a law enforcement officer detects impaired driving, administers field sobriety tests, makes arrests when appropriate, and records the evidence of a DUI (driving under the influence) offense. For School of Justice students only.

CJK0421
Dart-Firing Stun Gun
0.13 credits
The student will learn the basics of the conducted electrical weapon (CEW), particularly the dart- firing stun gun. The student will learn information about its practical use based on statutory requirements. For School of Justice students only

SCY0051
Private Investigator Intern Course A
0.80 credits
This course requires twenty four hours of training as required by Section 493.6203(b) F.S. for Private Investigator Interns. Students will learn topics which include Florida Statutes and Florida Administrative Code, the Intern/Sponsor Relationship, Ethics, Liability, Surveillance, Report Writing, Equipment, Interviewing, Sources of Information, the Computer and Investigations, and Restrictions on Records.

SCY0052
Private Investigator Intern Course B
0.53 credits
This course requires sixteen hours of training as required by Section 493.6203(b) F.S. for Private Investigator Interns. Students will learn topics which include locating people and performing background investigations, evidence, executive protection, anti-terrorism, courtroom and formal hearing demeanor, pretrial responsibilities, and the investigator as a witness. Prerequisite: SCY 0051

Dental Assistant

DEA0020
Pre-Clinical Procedures Theory
3 credits
This course is an introduction to dentistry and the dental assisting profession including duties and responsibilities, orientation to the dental office, basic concepts of microbiology, introduction to the basic skills in dental assisting including, but not limited to infection control procedures, instrument identification and four-handed dentistry.

DEA0020L
Pre-Clinical Practice Lab
3 credits
This course introduces students to the basic clinical dental assisting skills as theorized in DEA 0020. Concentration of study will include areas such as reception and dismissal of patients, patient management, establishing and maintaining records, obtaining, and recording medical/dental histories and vital signs, charting, planning appointments, assisting with, or performing various dental procedures, and utilizing practice management system.

DEA0031
Oral Pathology
1 credit
This course introduces principles of general pathology with an emphasis on conditions related to the oral cavity. There is a concentration on recognition of normal and abnormal conditions of the oral cavity and surrounding tissues.

DEA0132
Dental Nutrition
1 credit
This course is designed to integrate nutrition into the diagnosis, care, and treatment of dental patients demonstrating the relationship between diseases, diets, and oral health. An emphasis on dietary assessment methods in relation to dental health is explored.

DEA0800L
Clinical Practice 1
5 credits
This course is designed to integrate nutrition into the diagnosis, care, and treatment of dental patients demonstrating the This course introduces students to the basic clinical dental assisting skills as theorized in DEA 0020. Students will be required to participate and observe clinical and administrative activities in the campus dental clinic and rotate through other community clinics/dental offices where they will get an opportunity to work with a varied patient population. Concentration of study will include reception and dismissal of patients, patient management, establishing and maintaining records, obtaining and recording medical/dental histories and vital signs, charting, planning appointments, assisting with or performing various dental procedures, and utilizing practice management system.

DEA0804L
Clinical Practice 2
6 credits
This course is a continuation of DEA0803L. Students will be required to participate and observe clinical and administrative activities in the campus dental clinic and rotate through other community clinics/dental offices where they will get an opportunity to work with a varied patient population as they work on their competence in performing chairside assisting, expanded functions, laboratory, and basic business office procedures.

DEA0930
Dental Assisting Seminar
1 credit
This course provides learners with a review of materials commonly covered on the Dental Assisting National Board (DANB). Topics include but are not limited to infection control, general chair side procedures, and radiographic techniques. The seminar will provide a mock board examination, and opportunities for review, problem solving and strengthening skills.

Dental Support

DES0021
Dental Anatomy
3 credits
This course provides a study of the anatomy of the human dentition, its development and function. A detailed study of bony, muscular, circulatory, and nervous systems of the head and neck is included. An introduction to oral histology will also be offered.

DES0103
Dental Materials
2 credits
This course provides a study of the properties, manipulation, and care of materials used in the prevention and treatment of oral disease. It will include the study of physical, mechanical, chemical, and biological characteristics of materials.

DES0103L
Dental Materials Lab
3 credits
This course provides a study of the properties, manipulation, and care of materials used in the prevention and treatment of oral disease. It will include the study of physical, mechanical, chemical, and biological characteristics of materials.

DES0205
Dental Radiology
2 credits
This course is designed to provide students with a study of the principles of radiology, theory, and operation of X-ray equipment, darkroom procedures, film storage, and the hazards and precautions involved in dental radiology.

DES0205L
Dental Radiology Lab
2 credits
This course is designed to provide students with a study of the principles of radiology, theory, and operation of X-ray equipment, darkroom procedures, film storage, and the hazards and precautions involved in dental radiology.

DES0206
Dental Radiology II
1 credit
This course is a continuation of DES 0205. This course focuses on identification and interpretation of normal and abnormal dental pathology, accessory techniques and tomographic imaging systems.

DES0206L
Dental Radiology II Lab
1 credit
This course is a continuation of DES 0205L. This course focuses on identification and interpretation of normal and abnormal dental pathology, accessory techniques and tomographic imaging systems.

DES0501
Dental Practice Management
1 credit
This course introduces students to the principles of dental office management. Areas of study includes reception procedures, telephone techniques, appointment book control, inventory control, purchasing, filing systems, bookkeeping, and banking procedures, tax records, legal and ethical aspects of dentistry.

DES0602
Pharmacology/Dental Office Emergencies
1 credit
This course is designed to provide students with the basic concepts and considerations regarding pharmacology and pharmaceutic preparations used in dentistry and by patients; chemical and physical properties, actions, dose, methods of administration, therapeutic usage, side effects, indications and contraindications will be explored. In addition, this course also examines the anticipation and prevention of emergency situations in the dental office. The relationship of health and medical histories will be emphasized as well as recognizing and assisting with emergency care of dental patients.

DES0830
Expanded Functions Theory
1 credit
This course is designed to provide students with the foundational theory prior to gaining laboratory and clinical proficiency in the expanded functions legally allowable in the state of Florida.

DES0830L
Expanded Functions Lab
1 credit
This course is designed to provide students with the foundational theory prior to gaining laboratory and clinical proficiency in the expanded functions legally allowable in the state of Florida

Emergency Medical Services

EMS0110
Emergency Medical Technician
10 credits
The Emergency Medical Technician (EMT) course prepares students to provide prehospital assessment and care for patients of all ages with a variety of medical conditions and traumatic injuries. Areas of study include an introduction to emergency medical services systems, roles and responsibilities of EMTS, anatomy and physiology, medical emergencies, trauma, special considerations for working in the pre-hospital setting, and providing patient transportation.

Fire Science

FFP0021
Fire Fighter Minimum Standards
16.40 credits
This course teaches the initial and intermediate knowledge and skills for prospective fighters. Via lectures, drills, and evolutions, students will learn to operate as a team under supervision. Successful completion of all examinations, performance objectives and adherence to the Student Manual are required. Fire Academy Students Only.

FFP0077
First Responder
1.50 credits
A training course for students who will provide basic life support to victims of emergencies, to minimize patient discomfort and prevent further injury. This course is a required part of fire fighter training.

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Health Science

HIM0009
Introduction to Health Information Technology
3.00 credits
This course introduces students to health informatics and information management. Students will learn about the health care delivery system, communication skills, legal and ethical responsibilities, HIPAA and health records, and terminology related to health informatics. Other topics include developing leadership and teamwork skills and the application of critical thinking skills in a variety of presented scenarios.

HSC0003
Introduction to Health Care
2.50 credits
An introduction to the health care environment, this course focuses on the health care team and delivery systems. Students will learn about legal responsibilities, ethical issues, safety, infection control, communication, interpersonal behaviors, wellness, and disease. Corequisite: HSC0003L

HSC0003L
Introduction to Health Care Laboratory
0.50 credits
This course focuses on the performance of basic health care skills. Students will apply body mechanics and ergonomics, standard precautions used in infection control procedures and perform and record vital signs. Corequisite: HSC0003

Massage Therapy

MSS0156
Anatomy and Physiology for Massage Therapy
2.50 credits
This course will focus on the relationship between the anatomical and physiological effects of massage therapy on the body. Students will focus on the structure of organs, muscles, bones and tissues. Primary focus will center on the musculo-skeletal system and innervations.

MSS0156L
Anatomy and Physiology for Massage Therapy Laboratory
2.50 credits
This course will examine the practical application and physiological effects of massage therapy on the body. Students will focus on the structure of organs, muscles, bones and tissues. Primary focus will center on the musculo-skeletal systems and innervations as well as clinical pathologies related on those systems.

MSS0215
History and Standards for Massage Therapy
1.00 credits
This course examines the history and development of massage therapy, basic legal concepts related to health care employment, and legal requirements for practice as a Massage Therapist in the State of Florida.

MSS0250
Introduction to Massage Therapy
1.00 credits
This course focuses on the theories and principles of therapeutic massage. The Massage Therapist/Client Relationship, the effects on massage on the systems of the body, massage facilities, equipment/supplies, and furniture requirements will be discussed.

MSS0250L
Introduction to Massage Therapy Laboratory
6.00 credits
Laboratory for MSS 0250. This course provides opportunities for the practical application of the theories and principles of therapeutic massage.

MSS0281
Allied Modalities
3.50 credits
A study of the advanced theories and techniques for massage therapy. Content includes: oriental bodywork, reflexology, trager approach, rolfing, cranio sacral therapy, infant massage, pregnancy massage and aromatherapy.

MSS0300
Hydrotherapy Modalities
1.00 credits
This course focuses on the history and development of hydrotherapy, application in equipment used, and the associated standards.

MSS0300L
Hydrotherapy Modalities Laboratory
1.50 credits
This course presents opportunity for the students to safely and effectively apply various types of hydrotherapy and evaluate their effectiveness.

MSS0803C
Massage Therapy Clinical Practicum
3.00 credits
This course provides the student with the opportunity to practice and further develop an understanding of various massage techniques in a clinical placement setting under supervision of a licensed Massage Therapist.

MSS0995
Massage Therapy - Accelerated
13.50 credits
This course is designed to provide PSAV credit for students with training and State of Florida licensure as a Physical Therapist or Physical Therapist Assistant. Students must provide documentation of a current state license and be a graduate of an accredited program. This course requires special permission and students must contact the program coordinator for registration approval.

MSS0996
Massage Therapy - Transitional
8.00 credits
This course is designed to provide PSAV credit for students with training and State of Florida licensure as an Allied Health Professional or Registered Nurse. Students must provide documentation of a current state license and be a graduate of an approved Associate Degree program. This course requires special permission and students must contact the program coordinator for registration approval.

Medical Assisting

MEA0204
Theoretical Aspects of Clinical Skills
1.00 credits
This course is designed to develop and further support students' knowledge and ability to organize and work efficiently and effectively in both performing and assisting with clinical procedures performed in medical offices. Emphasis will be on the role and responsibility of the Medical Assistant.

MEA0204L
Application of Clinical Skills
2.00 credits
This course is designed to develop and support students' ability to perform and assist in basic clinical skills. Emphasis will be on the role and responsibility of the medical assistant in performing sterile techniques and the use of organization and efficiency in performing and assisting with patient examination, sterile procedures, and diagnostic procedures and treatment performed in medical offices.

MEA0231
Anatomy and Physiology and Medical Terminology
2.30 credits
This course is designed to introduce the student to basic anatomy and physiology and to develop the ability to communicate verbally and in writing within the medical field.

MEA0234
Pathophysiology & Disease for Medical Assistants
4.00 credits
This course is designed to introduce students to common diseases and medical conditions which affect patients who present themselves to medical offices for diagnosis and treatment. Emphasis will be on the role and responsibility of the Medical Assistant in prevention, diagnosis, and treatment.

MEA0242
Pharmacology for the Medical Assistant
3.00 credits
This course is designed to introduce students to principles of pharmacology and provide a basis to comprehend the role and responsibility of Medical Assistants in administering medication. Emphasis will be placed on calculation of dosages, frequently used drugs, and classification of drugs as they relate to the body systems.

MEA0254
Physician Office Laboratory Procedures
2.00 credits
Theoretical concepts of specimen collection and processing. This course focuses on the fundamentals of diagnostic tests, including urinalysis, basic office bacteriology, hematology, and blood chemistry. The principles of aseptic techniques, infection control, and safety procedures are discussed. Compliance with quality assurance practices are emphasized.

MEA0254L
Physician Office Laboratory Procedure Applications
2.00 credits
A clinical laboratory course designed for the Medical Assistant student to practice specimen collection, microscopy and urinalysis. Includes basic office bacteriology, hematology, and blood chemistry. The student will apply principles of aseptic techniques and infection control.

MEA0258
Radiology for the Medical Assistant
3.00 credits
This course focuses on the basic principles of x-ray, film handling and processing, radiographic technique, and radiation biology. The course prepares the student to take the examination given by the Florida Department of Professional Regulations (DPR) for the Basic Radiographer License.

MEA0322
Office Management and Professional Issues for the Medical Assistant
3.00 credits
Office management procedures, including planning and organization; financial and medical record keeping procedures; billing and collection; processing insurance claims using procedural and diagnostic coding. Legal and ethical responsibilities; credentialing and other professional issues of Medical Assisting.

MEA0334C
Medical Coding/Insurance Billing with Collections
4.00 credits
Processing health insurance claims using procedural and diagnostic coding. The student will learn and apply current government regulations affecting third-party reimbursement. Billing, electronic claims transmission, and collection systems are emphasized.

MEA0343
Computers in the Medical Office
3.00 credits
The application of computer concepts to medical office practices. The student will keyboard documents using word processing software. Emphasis will be on operating transcription equipment and transcribing medical records. The student will also be introduced to electronic spreadsheet and database applications.

MEA0540
Electrocardiography/Emergency Procedures
2.00 credits
The nature and purpose of the electrocardiograph (EKG); maintenance of equipment and materials needed; preparation of the patient and the procedure for taking and mounting the EKG record and monitoring the record for abnormal or erratic tracings. The maintenance of emergency equipment and implementing emergency procedures in the medical office.

MEA0802
Clinical Externship for the Medical Assistant
3.00 credits
This course is designed to provide students with experiences in the practice of the clinical aspect of medical assisting. Students will be assigned to physician's office or clinics where they will provide direct patient care under the guidance of an experienced Medical Assistant.

MEA0810
Administrative Externship for the Medical Assistant
3.00 credits
The student is assigned to a physician's office, clinic, laboratory, or other community health care facility. Emphasis is on integrating basic administrative skills demonstrated in previous courses.

MEA0832
Diagnostic Externship in Medical Assistant
3.00 credits
This course is designed to provide students with experiences in the diagnostic aspect of Medical Assisting. Students will be assigned to physician's office or clinics where they will perform diagnostic clinical laboratory procedures, electrocardiographic and basic x-ray procedures under the guidance of an experienced Medical Assistant.

Nursing

NSG0080
Nursing Transitions
3.7 credits
This course focuses on preparing students for the transition from Licensed Practical Nurse (LPN) to a Registered Nurse (RN). Students will adapt concepts of anatomy and physiology as the foundation of the professional nurse, demonstrate holistic assessment skills, and Integrate technology to provide and document care that focuses on the professional behavior of the nursing student. Students will integrate concepts of professional, legal, and ethical responsibilities of the RN, as well as effective communication, critical thinking, and decision-making skills.

NSG0081
Concepts of Geriatrics and Pharmacology in Nursing
3.4 credits
In this course, students will explore culturally centered client care, the impact of human growth and development on the nursing care of the older adult client and apply principles of pharmacology to evaluate the appropriateness of medications and treatments ordered for the older adult.Students will integrate the nursing process, clinical judgment, and safety for the novice professional nurse.

NSG0082
Psychiatric Nursing
3.4 credits
This course focuses on the assessment and management of mental health disorders. Students will learn therapeutic communication techniques, crisis intervention strategies, and the promotion of mental health and well-being. The course also covers psychopharmacology, psychiatric interventions, and legal and ethical considerations in psychiatric nursing.

NSG0083
Medical Nursing
3.4 credits
This course provides students with the knowledge and skills necessary to care for patients with a variety of medical conditions. Students will apply principles of growth and development, pathophysiology, diseases, disorders, complications, and management of care for the patient with adult medical disorders.Additionally, the course emphasizes the nursing process, clinical judgment, and safety while focusing on coordination of care.

NSG0084
Surgical Nursing
3.4 credits
In this course, students will study the preoperative, intraoperative, and postoperative care of surgical patients. Topics include aseptic techniques, perioperative nursing interventions, wound healing, pain management, and patient education.Students will also apply principles of adult surgical nursing that focus on teaching and learning opportunities in the perioperative client with body imbalances and maintaining homeostasis. Principles dealing with the management of common surgical procedures, potential complications, the nursing process, clinical judgment, and safety will be covered.

NSG0085
Pediatric Nursing
3.4 credits
This course focuses on the care of infants, children, and adolescents. This course allows students to perform care in pediatric wellness, outpatient and inpatient care settings. Students will: utilize human growth and development principles; nutritional guidelines, knowledge of anatomy and physiology, and evidence practice guidelines to build, apply, and evaluate a plan of care; utilizing knowledge of pathophysiology, disorder medical/surgical/nursing management, pharmacological/nonpharmacological care, to: promote healthy lifestyles, rank and prioritize hypotheses, plan diagnostic/therapeutic/educational interventions, perform interventions, and evaluate the effectiveness of interventions.

NSG0086
Obstetric Nursing
3.4 credits
This course allows the student to perform care of the family in the labor and delivery areas, obstetrical operating room, mother and baby units, newborn nursery, and outpatient family health clinic settings. Students will: utilize human growth and development principles; nutritional guidelines, knowledge of anatomy and physiology, and evidence practice guidelines to build, apply, and evaluate a plan of care; utilizing knowledge of pathophysiology, disorder medical/surgical/nursing management, pharmacological/nonpharmacological care, to: promote healthy lifestyles, rank and prioritize hypotheses, plan interventions, perform interventions, and evaluate the effectiveness of interventions.

NSG0087
Professional Nursing
3.03 credits
The student will function in the professional role of the nurse including team leadership and leadership roles in the specialty clinical areas including clinical care in specialty areas such as emergency rooms, intensive care units, and step-down areas. The student begins preparation for licensure and continuing education requirements by completing standardized assessments in fundamentals, medical nursing, surgical nursing, psychiatric nursing, pharmacological, pediatric nursing, obstetrical nursing, population specific care (geriatric, special populations, risk populations), and leadership.

NSG0089
Senior Practicum Intensive
2.87 credits
This course provides students with an opportunity to develop and apply professional practice standards while participating in a 1:1 preceptor model in acute car

Phlebotomy

MLT0041
Phlebotomy Theory
0.50 credits
This course covers the theory of phlebotomy techniques by venipuncture and skin puncture. This includes basic anatomy and physiology of the circulatory system, types of tubes to select for various blood tests, possible interfering substances, hospital hierarchy, professionalism, risk factors for Hepatitis, AIDS, and all sexually transmitted diseases, infection control guidelines, and employability skills.

MLT0048
Phlebotomy Practicum
1.50 credits
This course is designed to prepare students to draw blood by venipuncture and capillary puncture and to prepare them for employment in a hospital laboratory, blood center, or other health care facility. Students are taught safe and efficient work practices in obtaining adequate and correct blood specimens, labeling specimens, and transporting specimens correctly to the appropriate laboratory sections. The Center for Disease Control (CDC) guidelines for HIV/AIDS, Hepatitis B and other diseases are stressed.

MLT0061
Practical Aspects of Phlebotomy
0.50 credits
This course covers the collection of blood by venipuncture, skin puncture and donor room techniques. This includes the handling, labeling, transporting, and logging-in of specimens as well as the demonstration of correct infection control techniques.

Pharmacy Technician

PTN0003
Introduction to Pharmacy Practice & Medical Terminology
3.00 credits
This course is an orientation to the overall functions and services of a hospital pharmacy. Students will learn medical abbreviations, terminology, chemical symbols, formulas, and incompatibilities. Prequisite: HSC 0003; corequisite: PTN 0006.

PTN0004
Pharmacy Practitioner Applications
3.00 credits
This course focuses on pharmacy practitioner applications. Students will learn to develop skills relating to the specific, technical, manipulative and clerical tasks involved with the preparation and distribution of medications under the supervision of Licensed Pharmacists. Prerequisite: HSC 0003; corequisite: PTN 0021.

PTN0006
Pharmacy Calculations
3.00 credits
This is a course in Pharmacy Calculations. Students will learn to define systems of measurement, convert from one system to another, and calculate pharmacology problems. Prerequisite: HSC 0003; corequisite: PTN 0003.

PTN0021
Drug Classifications
3.00 credits
This course covers the major classifications of pharmaceuticals, standards for quality and purity of drugs, and authoritative information on dosage and administration. Students will learn about poisons, placebos, and the sources from which medications are produced. Prerequisites: HSC 0003, PTN 0003, 0006; corequisite: PTN 0004.

PTN0041
Pharmacy Technician Hospital Field Experience
10.00 credits
This course covers clinical hospital training to develop the student's knowledge and skills on the job. Students will learn how to properly prepare doses of medications and intravenous admixtures. Prerequisites: HSC 0003, PTN 0003, 0004, 0006, 0021; corequisite: PTN 0049.

PTN0049
Pharmacy Technician Retail Store Field Experience
10.00 credits
This course covers the clinical field experiences in a retail establishment. Students will learn about pharmaceutical chemistry, proper medication, and how to deliver medications correctly. Prerequisites: HSC 0003, PTN 0003, 0004, 0006, 0021; corequisite: PTN 0041.

Practical Nursing

PRN0005C
Fundamentals of Nursing
5.00 credits
This course provides an introduction to nursing and roles of the practical nurse in health care settings; as well as profession related and client-care concepts. Emphasis is placed on the knowledge and skills needed to provide safe, quality care. The theoretical foundation for basic assessment and nursing skills is presented, and the student is given an opportunity to demonstrate these skills in a laboratory setting. An introduction to the nursing process provides the student with a beginning framework for clinical decision making. (150 Contact Hrs.)

PRN0006C
Professional Role Transition
5.00 credits
This course facilitates the transition of the student to the role of PN. Emphasis is placed on issues related to nursing and healthcare, as well as skills necessary to provide care to multiple patients and assign tasks to other PN and unlicensed personnel. Concepts related to leadership and management are presented, as well as career development options that enhance career mobility. Standards of practice and the importance of practicing according to state regulations and statutes are examined. Clinical experiences provide the student the opportunity to apply theoretical concepts. Prerequisite: PRN 0080C and PRN 0204C. (25 Contact Lecture Hrs., 125 Contact Clinical Hrs.)

PRN0021C
Anatomy and Physiology and Medical Terminology
1 3.50 credits
This course is designed to provide the student with basic knowledge of normal human body structure and function. The student will learn major systems, organs and terminology necessary for the provision of safe and effective nursing care. (80 Contact Lecture Hrs., 25 Contact Laboratory Hrs.)

PRN0035C
Pharmacology
3.00 credits
The purpose of this course is to examine pharmacotherapeutic agents used in the treatment of illness and the promotion, maintenance, and restoration of wellness in diverse individuals. It focuses on drug classification, concepts, and principles of pharmacology, with special consideration for the nursing role in developing a comprehensive approach to the clinical application of drug therapy through the use of the nursing process. Nursing implications relative to the utilization of drug therapy are examined. Safety and legal implications of drug administration are discussed. (90 Contact Hrs.)

PRN0082C
Anatomy and Physiology and Medical Terminology 2
3.50 credits
This course is designed to provide the student with an increasingly complex knowledge of normal human body structure and function. The student will learn major systems, organs and terminology necessary for the provision of safe and effective nursing care. Prerequisite: PRN 0000C, PRN 0022C, and PRN 0030. (80 Contact Lecture Hrs., 25 Contact Laboratory Hrs.)

PRN0130C
Special Populations
5.00 credits
This course examines the application of nursing to the care of special populations throughout the life cycle. Emphasis is placed on nursing care of clients with psychosocial disorders, childbearing women, newborns, and children to promote independence, wellness, and maximizing quality of life. Prerequisite: PRN 0080C and PRN 0204C. (75 Contact Lecture Hrs., 75 Contact Clinical Hrs.)

PRN0210C
Adult Health I
10.00 credits
This course focuses on the care of adult/older adult patients with health alterations that require medical and/or surgical intervention. Emphasis is placed on the care of patients with alterations in selected body functions. Concepts of client-centered care, informatics, safe practice, and professionalism are emphasized throughout the course. Clinical experiences provide the student an opportunity to apply theoretical concepts and implement safe patient care to adults in a variety of settings. Prerequisite: PRN 0000C, PRN 0022C, and PRN 0030. (150 Contact Lecture Hrs., 150 Contact Clinical Hrs.)

PRN0211C
Adult Health II
10.00 credits
This course focuses on the care of adult/older adult patients with health alterations that require medical and/or surgical intervention. Emphasis is placed on the care of patients with alterations in selected body functions. Concepts of client-centered care, informatics, safe practice, and professionalism are emphasized throughout the course. Clinical experiences provide the student an opportunity to apply theoretical concepts and implement safe patient care to adults in a variety of settings. Prerequisite: PRN 0080C and PRN 0204C. (150 Contact Lecture Hrs., 150 Contact Clinical Hrs.)

Surgical Technology

STS0013
Central Sterile Processing Technician
13.66 credits
This course focuses on the application of central sterile processing including proper care, disinfection, assembly, sterilization processes, and sterile storage

for instrumentation following surgical procedures. The course will also include the review of basic anatomy, physiology, microbiology, relevant equipment, supplies, and techniques regarding different surgical procedures. Hands-on-experience in the Sterile Processing Department at local hospitals will be included in the course.

STS0019
Central Sterile Service Material Management
5.00 credits
This course is intended to teach the role of the central sterile processing technician in the sterile processing department and related areas will be covered. The course introduces anatomy and physiology to enable the SPD student to better understand each job function that they will perform. As well as microbiology to include the characteristics and activities of microorganisms and various significant aspects of infectious disease that occur in humans and infection control. This course will also cover professional management, communication skills and teamwork, ethical and moral issues in the healthcare setting, and legal issues and risk management.

Transportation and Traffic Management

TRA0080
Tractor Trailer Truck Driver
10.67 credits
The Tractor Trailer Truck Driver course prepares students for entry into the trucking and logistics industry. Students explore career opportunities and requirements of a professional tractor trailer driver. Students study vehicle safety, accident prevention, operating regulations, cargo handling, documentation procedures, pre-trip preparation, vehicle inspection, maintenance, service, control procedures, backing, coupling, uncoupling, maneuvering, road and hazardous driving skills, and licensing requirements. Recommended Preparation: Must have a valid Florida Driver's License and good driving record; Must have Commercial Learner's Permit; Must pass DOT Health Examination; Must pass DOT Drug Test.

TRA0084
Truck Driver Heavy Florida Class "B"
5.0 credits
The Truck Driver Heavy Florida Class "B" course prepares students for entry into the trucking and logistics industry. Students explore career opportunities and requirements of a professional class "B" truck driver. Students study vehicle safety, accident prevention, operating regulations, cargo handling, documentation procedures, pre-trip preparation, vehicle inspection, maintenance, service, control procedures, backing, maneuvering, road and hazardous driving skills, and licensing requirements. Prerequisites/Co-requisite Information: Must have a valid Florida Driver's License and good driving record, must have Commercial Learner's Permit, must pass DOT Health Examination, must pass DOT Drug Test.



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CRAWFORD, GALE E., (1971-1994), B.S., M.S.
CREELY, BEVERLY A., (1965-1996), B.Ed., M.A.
CREWS, GEORGE L., (1961-1982), B.S., M.Ed.
CRONIN, JOAN M., (1966-1989), B.A., M.A.
CRUSE, JOANNA S., (1973-1995), B.A., M.A., D.A.
CUERVO, MARGARITA M., (1975-2008), B.B.A., M.S., Ed.D.
DAGRAEDT, MARY V., (1961-1995), B.S., M.S.
DALE, PAULETTE, (1976-2008), B.A., M.S., Ph.D.
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DAWSON JR, WILLIAM G., (1978-2000), B.A., M.M.
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DERUMS, RASMA, (1967-1997), A.S., B.S., M.S.
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DUFF, SHELBY, (1961-1991), B.A., M.Ed.
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EMERSON, GEORGE H., (1967-2003), B.A., Ed.D.
FACKRELL, J G., (1968-1996), B.A., M.Ed.
FALLON, MARCIA J., (1967-1995), B.A., M.L.S., Ed.D.
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FERRER, MARTA, (1978-1996), M.S.
FIRESTONE, BRUCE, (1969-1997), B.S., M.S.
FISHBEIN, ELIZABETH L., (1967-1991), B.S., M.M., Ph.D.
FISHER, IJOURIE S., (1961-1985), B.A., M.Ed., M.S., Ph.D.
FIX, COLLEEN M., (1966-1998), B.A., M.S.
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FORRESTER, JANIE B., (1967-1986), B.A., M.S.
FOSTER, BARBARA J., (1974-1996), B.S., M.S.
FRANCIS, CYRIL A., (1970-1995), B.A., M.A., M.A., M.A.
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GOTTLIEB, DORMA J., (1978-2010), B.S., M.S., Ph.D.
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HERRIG, JOANNA B., (1963-1993), B.S., M.S., Ed.D.
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HODGES, PATRICIA, (1967-2000), B.S., M.B.A.
HOFFMAN, LINDA K., (1968-1997), B.S., M.Ed.
HOGAN, FRANCIS L., (1961-1990), B.S., M.S., Ph.D.
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HOLT, CHARLES E., (1961-1981), B.A., M.A.
HORNOR, MARIA B., (1960-1986), B.S., M.Ed.
HUFF, KATHERINE A., (1975-1996), B.A., M.Ed.
IZQUIERDO, RENE, (1989-2010), B.A., M.A., M.P., Ph.D.
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JOHNSON,ANITA L., (1973-1999), B.S.N., M.A., M.S.N.
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JONES, ELWOOD E., (1967-1991), B.A., M.Ed.
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MCWHORTER, JAMES M., (1966-1997), B.S., M.S.T.
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Migliaccio, Christopher, (1987-2019) B.S., M.S.
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NICHOLS, CECIL B., (1961-1996), A.A., B.S., Ed.S., M.Ed., Ph.D.
NOLAN, DELORES F., (1961-1996), B.A., M.A.
O'HARA, MAUREEN, (1973-2008), B.A., M.A.
OBER, LEWIS D., (1960-1985), B.S., M.S.
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PATTERSON, ROBERT K., (1969-1993), B.S., M.S., Ed.D.
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PERRY JR, ROY A., (1968-1996), B.M., M.A.
PFAFF, ROBERT M., (1967-1992), B.Ed., M.A.
PIERCE, CHARLES C., (1965-1993), B.A., M.A.
PISTORINO, JOHN C., (1967-1995), B.S.E., M.S.
POITRAS, ADRIAN W., (1961-1983), B.S., M.S., Ph.D.
PORTER, DAVID K., (1968-1996), B.S., M.A., M.S.
POTTER, RAYMOND J., (1968-1992), B.A., M.A., Ph.D.
PRAGUE, MELINDA, (1990-2011), B.Ed., M.Ed., Ed.D.
PREVATT, DOROTHY W., (1975-1996), B.S.Ed., M.Ed.
PRIMUS, WILLIAM T., (1968-2003), B.S., M.A., Ed.D.
PRYOR JR, JOHN H., (1971-2003), B.S., M.A., M.F.A.
READ, GABRIEL G., (1964-1996), B.Ed., M.Ed.
REICH, ROSLYN K., (1966-1997), B.S., M.Ed.
REQUE, ROSE S., (1968-1992), B.A., M.A., Ph.D.
REYNOLDS, EUNICE A., (1969-1996), B.S., M.Ed.
RICH, JANET C., (1967-1998), B.A., M.S., Ph.D.
RIECK, VICTOR H., (1969-1992), B.S., M.S.
RIVAS, DANIEL J., (1971-1992), B.S., M.A., Ph.D.
ROSE, JOHN G., (1977-1999), B.S., M.A., M.Ed.
ROSE, MARGARET G., (1967-2002), B.A., M.A.
ROTH, AUDREY D., (1963-1996), B.A., M.A., Ph.D.
RUCKER, SUZANNE S., (1961-1996), B.A., M.Ed.
RUMSEY, GEORGE A., (1964-1990), B.S., M.S.
SANDOVAL, HOWARD K., (1969-1996), B.S., M.A., Ph.D.
SANDOVAL, MERCEDES C., (1967-2003), B.A., M.A., Ph.D.
SAPHIRE, SRUL U., (1970-1990), B.A., B.S., M.A., Ed.D.
SARGENT, FRANCES R., (1961-1986), B.S., M.B.A.
SCHLAZER, ALBERT S., (1975-1997), B.Ed., M.A.
SCHNEIDER, GEORGE H., (1961-1986), B.A., M.S.
SCHOCH, ROSEMARY D., (1966-1986), B.M., M.S.
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SCHWARTZ, ALBERT, (1967-1988), B.A., M.S., Ph.D.
SEAGER, CHARLES R., (1969-2003), B.S., M.S., Ph.D.
SHAFFER, RICHARD D., (1960-1983), B.A., M.A., M.Ed.
SHANE, KENNETH V., (1964-1986), B.A., J.D.
SHANNON JR,WILLIAM A., (1966-1991), B.A., M.B.A.
SHERMAN, DAVID H., (1961-1982), B.A., M.Ed.
SHEROUSE, EVE T., (1967-1987), B.S., M.A.
SICARD, GERALD L., (1966-1996), B.A., B.S., M.A.
SMITH, DOUGLAS R., (1960-1991), B.S.E., M.Ed.
SMITH, MCGREGOR, (1966-1992), B.S., Ph.D.
SMITH, RUTH C., (1961-1996), B.A., Ed.S., M.A.
SNYDER, HARRY L., (1968-1987), B.A., M.D.V.
SPIEGEL, HERBERT J., (1969-1992), B.S., M.S.
SPITZER, DAVID D., (1964-1997), B.A., M.A.
STEARNS, ROBERT W., (1972-1993), B.A., M.P.A.
STEINBERG, RONALD F., (1966-1996), B.A., L.L.D.
STEINER, JAMES J., (1963-1982), B.S., L.L.M.
STOCKER, CARL F., (1964-1994), B.S., M.S., M.S., Ed.D.
STOKES, ROBERTA B., (1965-1998), B.S., M.A.
TAKOVICH JR, JOHN M., (1964-1996), B.S., M.S., Ed.D.
TAYLOR, CECIL J., (1967-1996), B.P.E., M.A.
TAYLOR, RAYMOND, (1962-1989), B.S., M.A.
TEBBS, DONALD E., (1968-1999), B.S., M.Ed.
TESH, MICHAEL S., (1973-2008), B.A., M.A.
TESSICINI, SALLY S., (1970-1995), B.F.A., M.F.A.
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THURBER, FRANK R., (1965-1995), B.Ed., M.Ed.
TIERNEY, JOSEPH J., (1961-1983), B.S.Ed., M.A.
TILLETT, WILLIAM S., (1969-1993), B.S., M.S.
TINNIE, WALLIS W., (1971-1993), B.A., M.A.
TIZIANI, DONALD B., (1965-1990), M.Ed.
TOMLIN, BILLIE S., (1966-2003), B.S., M.A.
TRACY, EVELYN H., (1965-1991), A.A., B.A., M.A., Ed.D.
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TURK, ROBERT A., (1961-1989), B.A., Ed.S., M.A., M.Ed., Ed.D.
WALZER, JOSEPH F., (1966-1989), B.A., B.B.A., M.B.A.
WARNER, JORGE I., (1966-1997), B.S., M.S., P.D.
WARNOCK, RONALD H., (1965-1998), B.S., M.S., Ph.D.
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WATTERS, ROBERT D., (1967-1996), B.A., M.S.
WEBB, MARTHA C., (1962-1990), B.Ed., M.A.
WENZEL, GUSTAVE G., (1963-1990), B.A., M.A.
WERNERT, JAMES E., (1967-1997), B.A., M.A.
WEST, FELICIA M., (1961-1983), B.S., M.Ed.
WHITE, CAROLYN B., (1969-1994), B.A., M.A., Ed.D.
WILCOSKY, ROBERT W., (1975-), A.S., B.Ed., M.Ed.
WILLCOX, WANDA M., (1963-1985), B.Ed., M.Ed., Ed.D.
WILLIAMS, KEITH W., (1964-1993), B.A., M.A., M.D.V.
WILSON, SUSAN U., (1973-1993), B.S., M.S.
WINE, HENRY E., (1965-1989), B.A., B.S.Ed., M.S.
WINEBRENNER, LAWRENCE M., (1964-1994), B.A., Ed.S., M.D.V., M.Ed.
WINET, ALAN, (1969-1990), B.S., M.A., M.A.
WORLEY, WILLIAM D., (1969-1988), B.S., M.A.
YAFFA, HAROLD, (1964-1998), B.A., M.A.
ZABSKY, HAROLD J., (1965-1996), A.S., B.S., M.S.
ZALMANOVICH, MORRIS H., (1969-1991), B.S., M.Ed.
ZEIEN, JOHN A., (1967-2003), A.A., B.A., M.Ed., Ed.D.
ZINGALE, JOSEPH L., (1966-1987), B.A., B.S., Ph.D.
ZION, CAROL L., (1960-1989), B.A., B.Ed., M.S., Ph.D.
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Academic Definitions and Maps

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ACADEMIC DEFINITIONS AND MAPS

Academic Definitions

The following are definitions of terms with which the reader may not be familiar:

Academic Year: Beginning of the fall term to the end of the summer term; approximately from the end of August to the end of the following July.

Advanced Technical Certificate: These are stateapproved advanced specialized programs designed for students who already have an Associate in Science degree and wish to supplement their degree.

College Credit: A unit of work in a subject, generally equivalent to one hour of class or two hours of laboratory a week for a regular sixteen (16) week term. Thus, a threecredit class meets for three class hours a week or two class and two laboratory hours. There is some variance in this rule for laboratory, clinical and studio courses.

College Credit Certificate Programs: These are stateapproved programs that are an integral part of an Associate in Science/Associate in Applied Science degree program.

College-Level Academic Skills (CLAS): Eliminated on July 1, 2011, the CollegeLevel Academic Skills (CLAS) exam was administered from October 1982 to June 2009 to students seeking an Associate in Arts (A.A.), Bachelor of Arts (B.A.), Bachelor of Science (B.S.), or Bachelor of Applied Science degree from a Florida public college or university as a means of educational accountability that satisfied the mandates of Section 1008.29, F.S. Effective July 1, 2011, public postsecondary students are no longer required to successfully complete CLAS requirements in order to be eligible for graduation.

Computerized Placement Test (CPT): An untimed computerized test in four sections (Reading Comprehension, Sentence Skills, Arithmetic and Elementary Algebra) administered to assess the basic skills level of students entering a degree program.

Community Education Courses: Courses that do not award academic credit (noncredit), but are offered for persons who wish to improve their personal efficiency, professional or business related skills and competencies, or enrich their personal lives.

Continuing Education Unit (CEU): Miami Dade awards CEUs for successful completion of Continuing Education noncredit CEU activities. One CEU is awarded for 10 contact hours, and is recorded on the student's permanent record.

Corequisite: A course, which must be taken simultaneously with another course.

Curriculum: A specific program of study comprised of courses leading to a degree or certificate.

Developmental Education: Developmental Education courses address basic skills deficiencies and are designed to prepare students for college level work. Students are advised into these courses through self-referral, nondemonstration of readiness through placement testing or alternate methods and faculty referral. These courses do not satisfy degree requirements.

Elective: A subject or course, which a student may choose to take as distinguished from a "required course" in a program of study.

Full-Time Student:* A student who is enrolled for 12 credits or more in the 16week terms and six credits or more in the sixweek terms. Credits taken in a 12week term (summer A and summer B) count as half value in each sixweek term. Credits enrolled for audit or by departmental examination do not count in computation of fulltime status.

Grade Point Average: The ratio of grade points earned to credits attempted. (See grade point average in Academic Regulations section.)

Major: The designation given to the complete group of courses necessary to fulfill the requirements for graduation in a specific field of baccalaureate programs (i.e., Public Safety Management, Electronics Engineering, etc.).

Occupational Programs: College credit programs leading to an Associate of Science degree.

Pathways: A set of curriculum pathways developed with focused career choices and course sequences to increase transfer success and completion of careeroriented degrees and certificates.

Prerequisite: An academic requirement, which must be

*In specialized circumstances, the College may define fulltime student status as less than the above. This special Collegedefined status would occur only in unusual circumstances related to the College's Standards of Academic Progress program.

met before a certain course can be taken classes, selection of courses by day and hour and the payment of fees.
Semester: See Term.
Standards of Academic Progress: Standards of satisfactory academic performance.
Supplemental Vocational Education Courses: These courses are for students currently or previously employed in a job category where skill upgrading is required to maintain current employment or to advance within their career field.
TABE: Test of Adult Basic Education administered to students enrolled in Career Technical Education Programs.
Term: A subdivision of the academic year, i.e., fall, spring, summer A and summer B terms.
Major term: fall and spring, approximately sixteen (16) weeks each.
Short Term (summer A and summer B)**: six (6) weeks each. Courses meet additional contact hours per week during the summer A/summer B terms.
Transcript: A certified copy of the student's academic record.
Vocational Credit: A unit of work in a subject based on 30 contact hours of classroom participation (or equivalent for work experience).
Career Technical Education Programs (CTE): These programs are defined by the state of Florida and consist of courses valued in vocational credits. Career Technical Education programs are designed to lead to immediate job entry upon completion. Those who complete a Career Technical Education program receive a Career Certificate and are entitled to attend graduation exercises.

MAPS

http://www.mdc.edu/about/campuses.aspx

**Some courses are scheduled for the combined summer A/summer B term of 12 weeks.


Miami Dade
College