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The programs, policies, requirements and regulations published in this catalog are continually subject to review in order to serve the needs of the College's various publics, and are subject to change as circumstances may require.

Equal Access/Equal Opportunity

Miami Dade College is committed to providing equal access to education and employment opportunities to students, employees, applicants for admission and employment, and to its activities for the general community in an environment free from harassment or other discriminatory practices based upon gender, race, color, marital status, age, religion, national origin, veteran's status, disability, sexual orientation or genetic information. The College's commitment to equal access and equal opportunity is contained in the District Board of Trustee policies and procedures based on the nondiscrimination provisions of federal and state laws and regulations, including the Civil Rights Acts of 1964, as amended, and 1991; 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; and the Florida Educational Equity Act (§ 1000.05, F.S.).

In accord 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 more detailed information on equal access/equal opportunity:

District Administration
Joy C. Ruff

Office of Equal Opportunity Programs/
Americans with Disabilities Act (ADA) Coordinator
Miami Dade College
11011 S.W. 104th St.
Miami, FL 33176-3393
Phone: 305-237-0278 Fax: 305-237-0943
Visit www.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

InterAmerican 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, FL 33012-2918

MDC-West
Office of the MDC-West 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 Web site at www.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 to award associate and baccalaureate degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Miami Dade College.

Additional accreditations include:

Accreditation Commission for Education in Nursing (ACEN)
Accreditation Review Commission on Education for the Physician Assistant (ARC-PA)
American Bar Association, 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 (CAHIM)
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 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)
National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)
National Association for the Education of Young Children (NAEYC)

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 (AACCC)
American Association of Hispanics in Higher Education Inc. (ACCHHE)
American Association of State Colleges and Universities (AASCU)
American Council on Education (ACE)
American Council on International Intercultural Education (ACIE)
Asociación de Universidades de América Latina y el Caribe para la Integración (AUALCPI)
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)
Center for Global Advancement of Community Colleges (CGACC)
Coalition of Urban and Metropolitan Universities (CUMU)
College Consortium for International Studies (CCIS)
Community College Baccalaureate Association (CCBA)
Community College Survey of Student Engagement (CCSSE)
Community Colleges for International Development (CCID)
Consortio-red de Educación a Distancia (CREAD)
Consortium for North American Higher Education Collaboration (CONAHEC)
Council for Higher Education Accreditation (CHEA)
Council for the Study of Community Education & Information Studies (CSCC)
Council of Foreign Relations (CFR)
Council on Competitiveness
EDUCAUSE-Association of Managing and Using Information Technology in Higher Education
Florida Association of Colleges and Universities (FACU)
Florida Association of Community Colleges (FACC)
Florida Campus Compact
Florida College System Activities Association (FCSAA)
Florida Community College Activities Association (FCCAA)
Florida Developmental Education Association
Greater Miami Chamber of Commerce (GMCC)
Hispanic Association of Colleges & Universities (HACU)
Hispanic Educational Telecommunications System (HETS)
League for Innovation in the Community College
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
National Collegiate Honors Council
National Commission for Cooperative Education (NCCCE)
National Community College Hispanic Council (NCCCHC)
National Institute for Staff and Organizational Development (NISOD)
Southeast Florida Library Information Network
Southern Association of Colleges and Schools (SACS)
Southern Association of Collegiate Registrars and Admissions Officers (SACRAO)
Southern Association of Junior, Community, and Technical Colleges (SAJCTC)
The College Board
World Association for Cooperative Education (WACE)
World Federation of Colleges and Polytechnics (WFPCP)

Requests for review of letters of accreditation may be forwarded to the Office of the Vice Provost for Education 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.

Table of Contents

Call us Essential ... Call us the College

<i>Academic Calendar</i>	3-5
<i>About Miami Dade College</i>	6
<i>Admissions and Financial Aid</i>	13
<i>Student Services</i>	29
<i>Information and Policies</i>	35
<i>Academic Regulations</i>	39
<i>Standards of Academic Progress</i>	42
<i>Graduation Requirements and Transfer Information</i>	45
<i>Academic Programs</i>	53
<i>Collegewide Schools</i>	101
<i>Special Academic and Other Programs</i>	105
<i>Special Information</i>	115
<i>Academic Offerings</i>	117
<i>Course Information</i>	119
<i>Course Descriptions</i>	126
<i>Board of Trustees, Administration, Faculty and MDC Foundation</i>	249
<i>Academic Definitions</i>	274
<i>Maps</i>	276
<i>Index</i>	285



MDC



Academic Calendar 2014 - 2015

Fall Term 2014 (2014-1)

Aug. 21 (Thur)	Faculty Report, FALL TERM.
Aug. 22 (Fri)	Fall Term preparation.
Aug. 25 (Mon)	Evening and weekday classes begin.*
Aug. 29(Fri)	Last day to drop classes with 100% refund for regular Fall Term classes.
Aug. 31 - Sept. 1 (Sat-Mon)	Holiday Period - Labor Day
Sept. 6 (Sat)	Saturday classes begin.*
Nov. 4 (Tues)	Last day to apply for institutional credit by examination, for Individual course withdrawal, and complete withdrawal from college.
Nov. 11 (Tues)	Holiday Period - Veterans Day
Nov. 27-30 (Thur-Sun)	Holiday Period - Thanksgiving
Dec. 19 (Fri)	Last day of classes and examinations
Dec. 20 (Sat)	Faculty grade input ends at 12:00 noon
Dec. 22, 2014 - Jan. 4, 2015	Winter Break

Spring Term 2015 (2014-2)

Jan. 5 (Mon)	Faculty Report, SPRING TERM
Jan. 6 (Tue)	Evening and weekday classes begin.*
Jan. 10 (Sat)	Saturday classes begin.*
Jan. 12 (Mon)	Last day to drop classes with 100% refund for regular Spring Term classes.
Jan. 17-19 (Sat-Mon)	Holiday Period - Martin Luther King, Jr. Day
Feb. 14-16 (Sat-Mon)	Holiday Period - President's Day
Mar. 6 (Fri)	College-wide Academic Convocation (no classes).
Mar. 18 (Wed)	Last day to apply for institutional credit by examination, for individual course withdrawal, and complete withdrawal from college.
Mar. 30 (Mon)	Last day to apply for graduation and have name appear in Commencement program.
Apr. 3-5 (Fri-Sun)	Spring Recess
May 1 (Fri)	Last day of classes and examinations.
May 2 (Sat)	Faculty grade input ends at 12:00 noon.
May 2 (Sat)	Commencement
May 4-8 (Mon-Fri)	Semester Break

Summer Term 2015 (2014-3)

May 11 (Mon)	Faculty Report, SUMMER TERM
May 11 (Mon)	Evening and weekday classes begin for first 6-week Summer session and for the 12-week Summer Term*.
May 13 (Wed)	Last day to drop classes with 100% refund for first 6-week Summer session.
May 15 (Thur)	Last day to drop classes with 100% refund for the 12-week Summer Term.
May 23-25 (Sat-Mon)	Holiday period - Memorial Day
June 4 (Thur)	Last day to apply for institutional credit by examination, for individual course withdrawal, and complete withdrawal from college for the first 6-week Summer session.
June 19 (Fri)	Last day of classes and examinations for the first 6-week Summer session.
June 20 (Sat)	Faculty grade input for the first 6-week Summer session ends at 12:00 noon.
June 22 (Mon)	Evening and weekday classes begin for the second 6-week Summer session.
June 24 (Wed)	Last day to drop classes with 100% refund for the second 6-week Summer session.
June 30 (Tue)	Last day to apply for institutional credit by examination, for individual Course withdrawal, and complete withdrawal from college for the 12-week Summer Term.
July 3-5 (Fri-Sun)	Holiday Period - Independence Day
July 16 (Thur)	Last day to apply for institutional credit by examination, for individual course withdrawal, and complete withdrawal from college for the second 6-week Summer session.
July 31 (Fri)	Last day of classes and examinations for the 12-week Summer Term and the second 6-week Summer session.
Aug. 1 (Sat)	Faculty grade input ends at 12:00 noon.s

Academic Calendar 2013 – 2014

Fall Term 2015 (2015-1)

Aug. 20 (Thur)	Faculty Report, FALL TERM.
Aug. 21 (Fri)	Fall Term preparation.
Aug. 24 (Mon)	Evening and weekday classes begin.*
Aug. 28 (Fri)	Last day to drop classes with 100% refund for regular Fall Term classes.
Aug. 29 (Sat)	Saturday classes begin.*
Sept. 5-7 (Sat-Mon)	Holiday Period – Labor Day
Nov. 3 (Tues)	Last day to apply for institutional credit by examination, for Individual course withdrawal, and complete withdrawal from college.
Nov. 11 (Wed)	Holiday Period – Veterans Day
Nov. 26-29 (Thur-Sun)	Holiday Period – Thanksgiving
Dec. 18 (Fri)	Last day of classes and examinations
Dec. 19 (Sat)	Faculty grade input ends at 12:00 noon
Dec. 21, 2015 – Jan. 3, 2016	Winter Break

Spring Term 2016 (2015-2)

Jan. 4 (Mon)	Faculty Report, SPRING TERM
Jan. 5 (Tue)	Evening and weekday classes begin.*
Jan. 9 (Sat)	Saturday classes begin.*
Jan. 11 (Mon)	Last day to drop classes with 100% refund for regular Spring Term classes.
Jan. 16-18 (Sat-Mon)	Holiday Period – Martin Luther King, Jr. Day
Feb. 13-15 (Sat-Mon)	Holiday Period – President's Day
Mar. 5 (Fri)	College-wide Academic Convocation (no classes).
Mar. 16 (Wed)	Last day to apply for institutional credit by examination, for individual course withdrawal, and complete withdrawal from college.
Mar. 25-27 (Fri-Sun)	Spring Recess
Mar. 28 (Mon)	Last day to apply for graduation and have name appear in Commencement program.
Apr. 29 (Fri)	Last day of classes and examinations.
Apr. 30 (Sat)	Faculty grade input ends at 12:00 noon.
Apr. 30 (Sat)	Commencement
May 2-6 (Mon-Fri)	Semester Break

Summer Term 2016 (2015-3)

May 9 (Mon)	Faculty Report, SUMMER TERM
May 9 (Mon)	Evening and weekday classes begin for first 6-week Summer session and for the 12-week Summer Term*.
May 11 (Wed)	Last day to drop classes with 100% refund for first 6-week Summer session.
May 12 (Thur)	Last day to drop classes with 100% refund for the 12-week Summer Term.
May 28-30 (Sat-Mon)	Holiday period – Memorial Day
June 2 (Thur)	Last day to apply for institutional credit by examination, for individual course withdrawal, and complete withdrawal from college for the first 6-week Summer session.
June 17 (Fri)	Last day of classes and examinations for the first 6-week Summer session.
June 18 (Sat)	Faculty grade input for the first 6-week Summer session ends at 12:00 noon.
June 20 (Mon)	Evening and weekday classes begin for the second 6-week Summer session.
June 22 (Wed)	Last day to drop classes with 100% refund for the second 6-week Summer session.
June 28 (Tue)	Last day to apply for institutional credit by examination, for individual Course withdrawal, and complete withdrawal from college for the 12-week Summer Term.
July 4-6 (Sat-Mon)	Holiday Period – Independence Day
July 14 (Thur)	Last day to apply for institutional credit by examination, for individual course withdrawal, and complete withdrawal from college for the second 6-week Summer session.
July 29 (Fri)	Last day of classes and examinations for the 12-week Summer Term and the second 6-week Summer session.
July 30 (Sat)	Faculty grade input ends at 12:00 noon.



About Miami Dade College

Miami Dade College offers a wide range of programs designed to meet the needs of Greater Miami. The College offers six degree options and a wide range of occupational certificates and specialized programs. The Associate in Arts degree (A.A.), designed to prepare students for further study at four-year institutions, includes more than 80 pathways leading to the baccalaureate degree. MDC 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. The Associate in Science degree (A.S.), with more than 60 areas of study, prepares students for direct entry into the workforce. Our A.S. graduates take advantage of the College's numerous partnerships with innovative businesses throughout South Florida. Miami Dade College currently offers the following baccalaureate degrees: the Bachelor of Science in Education (Biology, Chemistry, Earth & Space Science, Physics, Mathematics and Exceptional Student Education); the Bachelor of Science in Nursing; the Bachelor of Science in Electronics Engineering Technology, the Bachelor of Science in Biological Sciences; the Bachelor of Science in Early Childhood Education; and the Bachelor of Applied Science in Public Safety Management; the Bachelor of Applied Science in Supervision and Management; the Bachelor of Applied Science in Film, Television & Digital Production; and the Bachelor of Applied Science in Health Science with an Option in Physician Assistant Studies. Additional baccalaureate degrees/programs are planned for the coming years. In addition to these degrees, the College offers numerous short-term occupational certificate programs 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.

Admission is a simple process, requiring a completed application, with fee and official transcripts of high school or college studies. International applicants have additional entrance requirements based on U.S. immigration rules and baccalaureate degree-seeking applicants may have additional entrance requirements. Transfer students may receive credit for courses that equate to Miami Dade courses.

Mission Statement

The Mission of Miami Dade College is to change lives through the opportunity of education.

As democracy's college, MDC provides high-quality teaching and learning experiences that are accessible and affordable to meet the needs of our diverse students and prepare them to be responsible global citizens and successful lifelong learners. The College embraces its responsibility to serve as an economic, cultural and civic beacon in our community.

Vision Statement

The Vision of Miami Dade College is to be a college of excellence, renowned for its Values:

I. An exceptional learning environment in which students are challenged and empowered through innovation, state-of-the-art technologies, teaching excellence and student support programs that prepare each student with the knowledge, skills and values to succeed in a dynamic world.

II. A culture of inquiry and evidence that is characterized by the commitment of faculty, staff and students to accountability for learning excellence through the achievement of measurable learning outcomes, innovative



assessment methods and data-driven decisions that foster adaptability in programs and services.

III. An exceptional work environment that makes MDC the “employer of choice” for an exemplary, diverse workforce that is engaged in and accountable for the quality of MDC’s learning environment, and that benefits from excellent support, state-of-the-art technologies, growth opportunities and a competitive compensation program.

IV. Quality community partnerships that serve as the foundation for the development of relevant workforce, cultural and civic programs to foster community service and create a pervasive understanding throughout the greater Miami-Dade County community of the essential importance of education.

V. A commitment to cultural initiatives that complement academics and promote the advancement and appreciation of the arts, thereby contributing to the richness of our multicultural community.

VI. Sustainability practices that distinguish Miami Dade College as a leading innovator in educating our students as contributors to a healthy planet, and as an institution that accepts its responsibility to preserve the natural environment.

VII. Resource development and operational efficiencies that ensure effective support for the College’s long term efforts to provide an innovative and exemplary learning environment.

VIII. Global reach and awareness that enrich the curriculum and provide a truly international perspective to students.

MDC History

The '60s: Opening Education's Doors

Miami Dade College opened its doors as Dade County Junior College in 1960 amid desegregation and the influx of thousands of Cuban refugees. In year one, 1,428 students entered “Chicken Coop College,” nicknamed for the original buildings that were transformed into classrooms. The College was open to any county resident who had graduated from high school. The student body

included the seven black students who made Dade County Junior the first integrated junior college in Florida. These students, along with the many Cuban refugees seeking to better their lives, paid a \$5 application fee, but tuition was free to all county residents.

By the mid-'60s, the College was already thinking long range. With nearly 15,000 students attending, the original North Campus buildings were bursting at the seams. New construction was under way, with an eye toward not only a second campus in Kendall, but a third in downtown Miami. By 1967, the College was the largest institution of higher education in the state of Florida, enrolling 23,341 students. Dade Junior had become the fastest-growing junior college in the nation. It enrolled more freshmen than the University of Florida, Florida State University and the University of South Florida combined.

The '70s: Setting the Standard

In the mid-'70s, the College’s guiding philosophy of “access with excellence” was clearly defined. A bold education review reaffirmed the College’s open-door policy and toughened academic standards. The project and its goals became the standard for community colleges across the country. K. Patricia Cross, visiting professor at Harvard University’s Graduate School of Education, called the College “the most exciting institution of higher education in the country.”

The excitement spread to every corner of this changing community. The downtown campus, later to be renamed for one of the College’s founders, Mitchell Wolfson, was born in 1970. The Medical Campus was founded in 1977, and bilingual studies became a full-fledged division in 1979, with more than 2,000 students enrolled in outreach centers in the Little Havana area. These centers would soon become the InterAmerican Center, the largest bilingual facility in all of higher education.

The '80s: Maturity and Recognition

By the 1983-84 academic year, the effects of a changing community were reflected at the community college. Thirty percent (nearly 18,000 students) were immigrants, and 46 percent report-

ed that English was not their native language. Almost two-thirds of students enrolled in the College were minorities, and 56 percent were women. Part-time students were common.

In 1984, the New World School of the Arts (NWSA) was conceived. Designed to train future performing and visual artists from high school through the baccalaureate, the school became an educational partnership of Miami Dade College, Miami-Dade County Public Schools and Florida International University, with FIU handing the baton to the University of Florida in 1997. Today, NWSA is recognized as one of the premier arts conservatories in the country, with the work of its graduates gracing venues from New York to Los Angeles.

1984 was also witness to a modest College-sponsored bookfest on Kyriakides Plaza at Wolfson Campus. “Books by the Bay” drew a surprising crowd of 25,000 people over two days. Today, Miami Book Fair International is not only South Florida’s premier cultural happening, it is the most respected literary event in the country.

The College’s fifth campus, in Homestead, opened in 1985 at the First Baptist Church with 350 students. By 1991, a modern campus facility had been built for South Dade’s ever-growing student population.

By the close of the decade, the College’s place in education was nationally recognized: The prestigious University of Texas Community College Leadership Program identified the College as the No. 1 community college in America.

The '90s: Ready for the New Economy

College personnel challenged the mindset of the past by initiating comprehensive reforms in academic programs and administrative operations. The College’s Education Review revamped the academic core and electives by modernizing the curriculum to meet the needs of a changing society. Progressiveness was not limited to education, as the re-engineering process also brought improved strategies to human resources, maintenance operations and budget formulation. The College’s effort to streamline its bureaucracy and contain costs brought a new financial stabil-

ity, freeing resources for new staff and program development.

The College's Technology Master Plan put the College on the fast-track in academic and administrative computing throughout the 1990s. The College sought to keep pace with the changing economy and workforce, developing strong partnerships throughout 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. The College developed multimedia classrooms and the Virtual College placed the College on the Internet map, allowing students to take classes online. Recognition soon followed: Yahoo! Internet Life proclaimed MDC "WIRED" and voted the College "second best of all colleges and universities." The College's information technology efforts also gained residence in the Smithsonian's permanent collection with a nomination for the Smithsonian Innovation Award.

The College's sixth campus became a reality in the mid-'90s when InterAmerican Center was granted campus status by the District Board of Trustees and was accredited by the Southern Association of Colleges and Schools.

2000: A New Learning Agenda

The new millennium dawned and MDC breezed through the Y2K jitters safe and sound in its mission to serve students. The College's "Learning Agenda" laid out the next phase of growth, exploring new learning models and student support programs, as well as campus, faculty and leadership development efforts. As always, students stand at the center of this vision: Their success is the ongoing, top priority of Miami Dade College.

The Honors College offers a scholarly environment that challenges academically gifted and intellectually curious students. In addition to expert teachers and a rich comprehensive curriculum, The Honors College offers students a generous scholarship award, college-wide support services and enrichment opportunities that include attendance and participation at national and regional conferences, internships, corporate

coaches, travel study tours, university transfer counseling and an individual educational plan. The successful Honors College graduate will be prepared to transfer to many of the most prestigious colleges and universities in the nation.

The Emerging Technologies Center of the Americas (ETCOTA) is the College's response to the need for a qualified workforce to fill the thousands of new jobs in Information Technology and Telecommunications. ETCOTA is a dynamic, state-of-the-art 40,000 square-foot facility housing 19 multimedia classrooms and labs equipped with high-end computers, specialized instrumentation equipment and simulation work-stations. Located at Wolfson Campus, the Center also has a 120-seat auditorium and offices for faculty and staff.

With the addition of four-year degrees in 2003, the institution changed its name to Miami Dade College. While the word "community" is no longer in the title, the College remains the "Community's College," committed to the educational needs of individuals and industries throughout South Florida. Baccalaureate degrees are offered in education; public safety management; nursing; electronics engineering; supervision and management; film, television and digital production; and health sciences.

In 2005, MDC received official reaccreditation from the Southern Association of Colleges and Schools (SACS), the regional accreditation body. At 10-year intervals, SACS places higher education institutions under the microscope, and MDC passed the review with flying colors. During the review, MDC introduced "The Math Connection," a five-year program of continuous improvement for math students, and Learning Agenda II, with special emphasis on learning outcomes, assessment and competencies.

In 2006, MDC reached an astonishing milestone, welcoming its 1.5 millionth student. In a community of 2.3 million, MDC's role remains central to educational, social, cultural and economic growth.

MDC welcomed President George W. Bush for commencement exercises at Kendall Campus. President Bush applauded MDC as "democracy's college." Since then, President William Jefferson Clinton and President Barack Obama have deliv-

ered commencement addresses at the College. MDC also became the proud steward of the historic Freedom Tower, where many immigrants arrived in the 1960s and 1970s. The building hosted the first U.S. exhibition of the complete etchings of Francisco de Goya and a covenant signing for the College's 10 Learning Outcomes, attended by Sara Martinez Tucker, the U.S. Under Secretary of Education. These general education outcomes and assessment methods drew national praise and represented MDC's unique contribution to a new era of liberal learning and the need to assess student learning effectively.

The College continues to contribute to the region's cultural landscape via world-class programs, including those offered by The Center @ MDC (formerly known as the Florida Center for the Literary Arts) and Art Gallery System, New World School of the Arts and Cultural Affairs Department. The year 2008 celebrated the 25th anniversaries of both Miami International Film Festival and Miami Book Fair International. The New York Times named MDC's cultural programming among the best in academia. In 2010, Miami Dade College celebrated its 50th anniversary.

Campuses & Outreach Centers

MDC enrolls more than 170,000 students at its seven 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 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 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 roof-top 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 Entertainment and Design Technology (SEDТ) 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 recently introduced 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 facil-

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

Wolfson Campus is home to the Emerging Technologies Center of the Americas (ETCOTA), a state-of-the-art, 40,000-square-foot high-tech training facility. It has fast become the leading provider of skilled professionals for the region's emerging technology industries. 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 International. 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 now 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.

MDC opened the Confucius Institute - a language, business and culture center



that is the first of its kind in South Florida - in 2010. Housed at Wolfson Campus, the Institute is a nonprofit learning hub in partnership with China's Ministry of Education, and offers Chinese Mandarin instruction, business seminars, culinary, history and calligraphy courses, traditional medicine workshops, art exhibitions and much more. Other classes and activities will be incorporated over time and based on demand.

Medical

In 1977, 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 help to ensure that students are prepared in these and other challenging medical careers. Medical Campus educates two-thirds of the newly graduated registered nurses in Miami-Dade County. The practical nursing program (LPN) was reopened in 2000 and the Bachelor of Science in Nursing 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 Tamiami 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.

InterAmerican

InterAmerican Campus is located in the heart of Little Havana, a colorful and lively neighborhood in Miami's historic Latin Quarter. The seed for InterAmerican 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. 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 was born. The District Board of Trustees pronounced InterAmerican Campus a full-fledged, full-service campus, the sixth campus of Miami Dade College.

Today, InterAmerican 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.

MDC-West

Approved by the Florida Board of Education in 2005, MDC-West opened for classes on March 1, 2006 and operates under the supervision of the North Campus. An exciting learning environment for the greater Miami community,

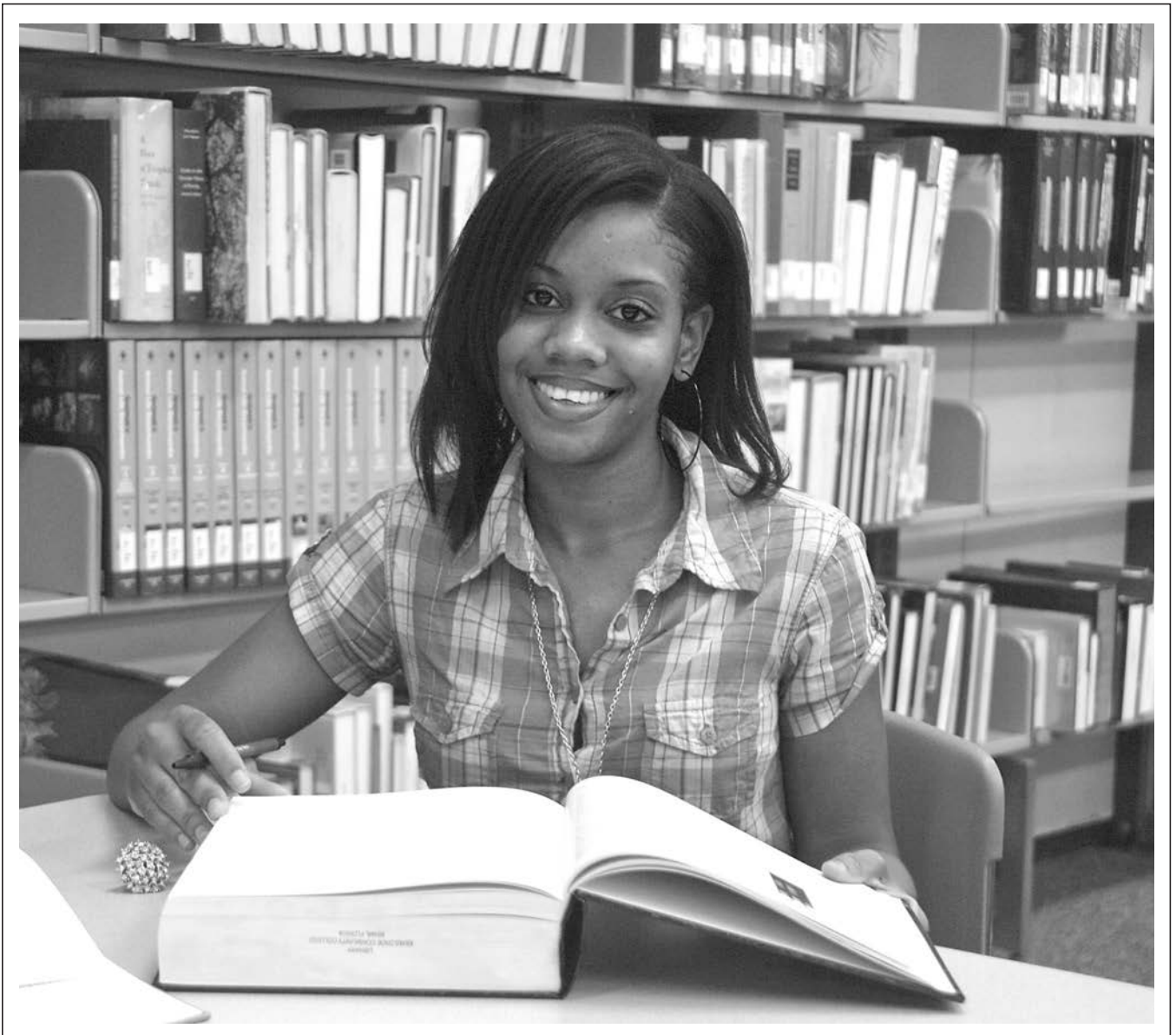
MDC-West serves one of the fastest-growing locales in Miami-Dade County, including Doral and surrounding areas. MDC-West offers courses toward the Associate in Arts and Associate in Science degrees as well as corporate training programs. It houses the College archive and in 2007 became the site of the first public art gallery in Doral.

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.



Admissions & Financial Aid

Call us Essential ... Call us the College

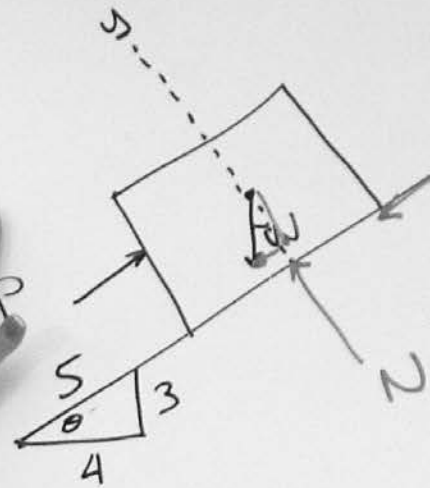
ADMISSIONS INFORMATION

<i>Admissions Criteria</i>	15
<i>How to Apply</i>	17
<i>Florida Residency</i>	19
<i>Residency for Tuition Purposes</i>	22
<i>International Student Admissions</i>	23
<i>Admission to Continuing Education Programs and Courses</i>	24
<i>Fees and Refunds</i>	24
<i>Fee Policy for Repeated Courses</i>	25
<i>Excess Hours Advisory</i>	25
<i>Refund Policy</i>	25
<i>Payment Policy</i>	26
<i>Florida Pre-Paid Tuition Program</i>	26

FINANCIAL AID INFORMATION

<i>Student Financial Aid</i>	27
<i>Philosophy of Financial Aid</i>	27
<i>What is Financial Need?</i>	27
<i>How to Apply</i>	27
<i>Application Priority Deadline</i>	27
<i>Verification</i>	27
<i>Reapplying</i>	27
<i>Basis on Which Financial Aid is Granted</i>	27
<i>Who Qualifies for Financial Aid</i>	28
<i>Refunds and Repayments</i>	28
<i>Miami Dade Student Assistance Programs</i>	28
<i>Tax Help for Educational Expenses</i>	28
<i>Veterans Administration Assistance</i>	28
<i>Other Sources of Financial Assistance</i>	28
<i>Accessing the Financial Aid Office</i>	28





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Admissions Information

Admissions Criteria

A. College Readiness and Developmental Education

MDC annually reviews and publishes the Placement Criteria document, which adheres to Florida Statute 1008.30 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. Admissions to College Credit Programs for the Associate in Arts, Associate in Science, Associate in Applied Science, and College Credit Certificate Programs

Applicants meeting any of the following criteria are admitted to the above programs:

1. Graduates from any public high school in the United States or territories with a standard diploma, per Florida Statute 1007.263.
2. Any applicant with a Florida public high school withdrawal (completion) code eligible for college credit admission as defined by the Florida Department of Education.
3. Graduates from non-public high schools in the United States and its territories, which do not require the validation of category C.
4. Anyone awarded a Department of Education high school equivalent (GED) diploma in the United States and its territories.
5. Home-schooled students with a signed affidavit from their parent or legal guardian stating that they have completed a Florida home education program, per Florida Statute 1002.41.
6. Graduates 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) member organization. The list of member organizations may be found at www.naces.org. Students must present this official evaluation to their campus Admissions and Registration Office.

7. International students who meet the admission requirements specified in section B and require a college credit student visa (F-1) must also provide all of the following supplementary admission documents to the International Students Office 90 days prior to the beginning of the term for which the students seek admission:
 - Statement of financial resources available to support their educational expenses
 - Certificate of health and accident insurance

C. Cases That Require Additional Validation

For applicants whose diploma does not meet the criteria above, validation is mandatory in cases where either MDC, the United States Department of Education (USDOE) or the Florida Department of Education (FDOE) 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 fees.
2. The curriculum consisted exclusively of online/distance education instruction, and the high school is not listed as an accredited institution by the Distance Education and Training Council (DETC). MDC will accept diplomas from online high schools only if they are accredited by the DETC. The DETC maintains a list of

accredited institutions that offer high school via distance education; this list is accessible at <http://www.detc.org/accred.html>.

3. There is conflicting high school information.
4. The high school was previously questioned as being a diploma mill by MDC or other accredited higher education institution.
5. 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/private-schoolsearch/>.
6. 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/>. Inclusion in this database does not imply approval or accreditation by the Florida Department of Education.
7. 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://web1.ncaa.org/hsportal/exec/hsAction>.
8. 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.

D. Transfer Students

Applicants who are admissible under section II.B and 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:

- Students who transfer from U.S. regionally accredited postsecondary institution(s) with fewer than 12 college-level credits earned with “C” or higher grades must submit proof of valid high school graduation as listed in Section II.B.
- Students who transfer from U.S. non-regionally accredited postsecondary institution(s) may be admitted on the basis of the high school graduation according to section II.B. Courses taken at non-regionally accredited institutions that adhere to the Florida Statewide Course Numbering System may be accepted.
- 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 12 college-level credits earned with “C” or higher grades must submit proof of valid high school graduation as listed in Section II.B.

International students who require a college credit student visa (F-1) must also provide supplementary admission documents as noted in II.B.7.

E. Dual Enrollment and Early Admission

Admission to dual enrollment and early admission is permitted per Florida Statute 1007.263 and based on guidelines listed on the MDC Programs for High School Students web site.

F. Admissions to Baccalaureate Degree Programs

Baccalaureate degree applicants must meet all general and program-specific admission requirements.

G. Admission to Career and Technical Education (Vocational Credit) Certificate Programs

Anyone who meets the requirements under II.B of this Procedure may be admitted to Career and Technical Education programs as well as the following:

- Applicants who are at least 16 years of age and have left high school prior to completion
- Applicants who have been awarded a special diploma, as defined in s.

1003.438 or a certificate of completion, as defined in s. 1003.43(10).

- International students with a vocational credit student visa (M-1) and the supplementary admission documents indicated in II.B.7 above.

H. 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 (MDC) 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 Florida Statute 1001.64(8) (a), 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 Florida Statute 1001.64(8)(a), 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.

5. For cases that require additional validation as described in section II.C, this procedure is applicable to all students applying for admission on or after the revision date of November 8, 2011, regardless of the issue date of the high school diploma.

Admission to Career & Technical Education (CTE) Programs

1. The following persons are eligible for admission to the CTE programs of Miami Dade College:

Graduates from accredited high schools, persons holding a state-issued high school equivalent (GED) diploma, 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).

2. 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.
3. A limited number of programs have supplementary admission requirements (consult campus admissions office).
4. Foreign students who require a student visa (M-1) must also provide the supplementary admission documents indicated in 3 above.

Note: Students graduating from a Florida public high school subsequent to Aug. 1, 1987 and applying for admission to an associate degree program must meet the specific general requirements for high school graduation as defined in §1003.43, Florida Statute (FS.).

How to Apply

Admissions Procedures and Supporting Credentials

- A. The admission application is accessible online at www.mdc.edu/admissions. The application for admission should be sent to the Admissions Office on the campus where the student plans to enroll, or submitted via the Internet. The application must be submitted prior to the beginning of the term of enrollment. The application may also be accessed at MDC's webpage (www.mdc.edu).
- B. International students must submit the application by the published deadlines. See deadlines at: www.mdc.edu/prospective/international. A \$30 non-refundable application fee is charged for processing a student's first application. The International Student admission application fee is \$50. All Florida residents must complete a Florida Residency Statement to verify resident status for assessing fees and tuition. The statement is provided as part of the admission application package. See "Florida Residency" information in this catalog for additional details.
- C. All final, complete, and official domestic transcript(s) must be sent directly from the applicant's high school, college or other post-secondary educational institution to the Transcript Processing Services office at MDC.
- D. High school equivalency diploma or certificate holders should provide the original document and score report (which will be returned to a Campus Admissions and Registration Office. In Florida, this certificate is the General Educational Development Diploma (GED). See the GED section for additional information.
- E. 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.
- F. 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 universities or nationally accredited institutions that participate in the Florida Course Numbering System unless a written agreement between MDC and a specific post-secondary institution has been previously approved. 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. MDC prerequisite and/or co-requisite course requirements may apply to course selections. Transient students at Miami Dade College may be required to have official transcript(s) sent directly to Miami Dade College from their previous college(s). Transient students are advised to use Florida's official online student advising system at www.flvc.org.

Non-Degree Applicants

Non-degree applicants are students who wish to take selected college cours-

es without the intent of completing a college credit certificate, associate or baccalaureate degree program. These students must fill out an application for admission and 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 complete the Postsecondary Education Readiness Test (PERT), or provide valid Grade 10 FCAT 2.0 (reading only), ACCUPLACER (CPT), ACT or SAT scores. 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** - Selected high school students (10th, 11th or 12th grades) may enroll for a maximum of two courses each semester, excluding labs, up to a maximum of 24 credits each academic year. Acceptance in the Dual Enrollment program is based on the following:
 1. Minimum 3.0 (unweighted) high school grade point average;
 2. Permission from the parent(s), high school guidance counselor and principal;
 3. A student's expressed intent to pursue a post-secondary degree;
 4. Must pass the appropriate sections of the FCAT 2.0 (Grade 10), CPT/PERT, ACT, or SAT to enroll in college credit courses requiring competency in the associated placement area.
 5. Interview with a member of the College's advisement/counseling staff to determine that the student has the potential to complete college credit courses successfully; a special form for parental/high school approval is provided by the Admissions Office. This form is to be submitted prior to each term of enrollment to assure continuity of appropriate approvals. All informa-

tion about dual enrollment may be accessed on the Web at www.mdc.edu.

B. 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. A special approval form is available in the College's Admission & Registration Office.

Readmission to the College

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

1. The student did not enroll during

any one of the three preceding terms but was previously enrolled.

2. 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 students.
3. The Florida student residency was completed more than 12 months ago.

To be readmitted to the College go to www.mdc.edu/admissions

Developmental Education Courses

Degree-seeking students who have never attended college will be tested for proficiency in reading, writing and mathematics.

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.

In accordance with §240.321, F.S., students may use adult basic education, adult secondary education or private provider instruction as an alternative to traditional college preparatory instruction.

State law requires students to com-

plete developmental education courses by the time 12 college credits are accumulated.

Florida Board of Education rules limit the number of times a student can take a college prep 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

Adults who are not high school graduates can obtain an equivalent to a Florida high school diploma 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. 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 (§1009.21,

FS.) and Rule 6A-10.044, F.A.C., which are reprinted as follows: §1009.21, FS. determination of resident status for tuition purposes.

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 community colleges, and in state universities.

(1) As used in this section, the term:

- (a) "Dependent child" means any person, 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.
- (b) "Initial enrollment" means the first day of class at an institution of higher education.
- (c) "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 s. 1001.44, community college as defined in s. 1000.21(3), or state university as defined in s. 1000.21(6).
- (d) "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. 222.17.
- (e) "Nonresident for tuition purposes" means a person who does not qualify for the in-state tuition rate.
- (f) "Parent" means the natural or adoptive parent or legal guardian of a dependent child.
- (g) "Resident for tuition purposes" means a person who qualifies as provided in this section for the in-state tuition rate.

(2) (a) 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.
 - (b) 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 prior to the child's initial enrollment in an institution of higher education, provided the child has resided continuously with such relative for the 5 years immediately prior to the child's initial enrollment in an institution of higher education, during which time the adult relative has exercised day-to-day care, supervision, and control of the child.
 - (c) 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) An individual shall not be classified as a resident for tuition purposes and, thus, shall not be eligible to receive the in-state 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.
- (b) 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.
- (c) 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. No single piece of evidence shall be conclusive.
1. The documents must include at least one of the following:
 - (a) A Florida voter's registration card;
 - (b) A Florida driver's license;
 - (c) A State of Florida identification card;
 - (d) A Florida vehicle registration;
 - (e) 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;
 - (f) Proof of a homestead exemption in Florida;
 - (g) Transcripts from a Florida high school for multiple years if the Florida high school diploma or GED was earned within the last 12 months;
 - (h) Proof of permanent full-time employment in Florida for at least 30 hours per week for a 12-month period.
 2. The documents may include one or more of the following:
 - (a) A declaration of domicile in Florida;
 - (b) A Florida professional or occupational license;
 - (c) Florida incorporation;
 - (d) A document evidencing family ties in Florida;
 - (e) Proof of membership in a Florida-based charitable or professional organization;
 - (f) 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.
- (4) 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.
- (5) In making a domiciliary determination related to the classification of a person as a resident or nonresident for tuition purposes, the domicile of a married person, irrespective of sex, shall be determined, as in the case of an unmarried person, by reference to all relevant evidence of domiciliary intent. For the purposes of this section:
- (a) A person shall not be precluded from establishing or maintaining legal residence in this state and subsequently qualifying or continuing to qualify as a resident for tuition purposes solely by reason of marriage to a person domiciled outside this state, even when that person's spouse continues to be domiciled outside of this state, provided such person maintains his or her legal residence in this state.
 - (b) A person shall not be deemed to have established or maintained a legal residence in this state and subsequently to have qualified or continued to qualify as a resident for tuition purposes solely by reason of marriage to a person domiciled in this state.
 - (c) In determining the domicile of a married person, irrespective of sex, the fact of the marriage

and the place of domicile of such person's spouse shall be deemed relevant evidence to be considered in ascertaining domiciliary intent.

- (6) (a) 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 supports 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 full-time 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.
- (b) 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.
- (c) If a person who is a dependent child and his or her parent move 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.
- (d) 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 in-state 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 re-enroll 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 re-established 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:
- (a) 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;
- (b) Active duty members of the Armed Services of the United States and their spouses and dependents attending a public community college 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;
- (c) 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;
- (d) Full-time instructional and administrative personnel employed by state public schools and institutions of higher education and their spouses and dependent children;
- (e) 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 full-time basis, a Florida institution of higher education;
- (f) Southern Regional Education Board's Academic Common Market graduate students attending Florida's state universities;
- (g) Full-time 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;

- (h) McKnight Doctoral Fellows and Finalists who are United States citizens;
 - (i) 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;
 - (j) 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 community college or state university within 50 miles of the military establishment where they are stationed;
 - (k) 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 community college 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.

History.—s. 2, ch. 2002-270; s. 400, ch. 2002-387; s. 14, ch. 2004-230; s. 132, ch. 2007-217; s. 7, ch. 2009-60; s. 2, ch. 2009-123; s. 10, ch. 2010-155.

Note: Section 21, ch. 2010-70, directs the Division of Statutory Revision to prepare a reviser's bill to substitute the term "Florida College System institution" for the terms "Florida college," "community college," and "junior college" where those terms appear in the Florida K-20 Education Code.

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, FS.

- (1) For Initial Determination of Residency:
 - (a) A dependent student who attended a Florida high school for a minimum of two (2) 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 Florida GED within the last twelve (12) months may use their high school transcript or the GED transcript as evidence of Florida residency. At least one (1) additional document identified in Section 1009.21(3)(c)1. or 1009.21(3)(c)2., FS., must be presented evidencing parental legal residence.
 - (b) If a declaration of domicile, pursuant to Section 222.17,

FS., 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), FS., as of a date earlier than that established by the Declaration of Domicile.

- (2) 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)1. or 1009.21(3)(c)2., FS., 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 prior to his or her request for reclassification.
- (3) 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 clas-

sification. Each institution of higher education may establish submission deadlines for all documentation that will be used to determine residency for tuition purposes.

- (4) A non-United States citizen may be eligible to establish residency for tuition purposes if evidence is presented verifying that he or she is legally present in the United States and the student is one of the following:

(a) A foreign national in a nonimmigrant Visa classification eligible for study and with a date of departure that is not during the term the student will be enrolled. The student, and parent, if the student is a dependent, must present evidence of legal presence in the United States. A Student Visa shall not be accepted as evidence of eligibility to establish residency.

(b) A foreign national, such as permanent resident aliens, parolees, asylees, Cuban-Haitian Entrants, and other legal aliens granted indefinite stay, in a status that is eligible for study in the United States.

- (5) Each institution's official residency appeal process established pursuant to Section 1009.21(11), F.S., shall be in writing and prominently displayed on the institution's web site.

Rulemaking Authority 1009.21(11) FS. Law Implemented 1009.21(11) FS. History—New 10-6-92, Amended 10-17-00, 3-22-05, 6-22-10.

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 non-immigrant 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

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 and TOEFL test scores (if available), must be received at least 90 days prior to the start of the term in which the applicant plans to enroll. The Test of English as a Foreign Language (TOEFL) is usually administered several times each year at centers in most countries of the world. Information and application forms for TOEFL may be obtained from international centers, by writing to TOEFL, Box 899, Princeton, NJ 08541, USA, or by visiting their website at www.toefl.org.

Deadlines for International Student Admissions

Spring Term Oct. 2
Summer Term Feb. 15
Fall Term May 26

Readmission - Readmission to the College for the international student requires submitting a new application for admission, new official transcripts of post-secondary education attempted since last attendance at Miami Dade College, official bank letter of financial resources to support education costs and a letter explaining the circumstances requiring readmission. 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 scores (or an equivalent score on other standardized tests) of 550 (213 on the computerized version or 79-80 on the Internet-based version) or higher are eligible to take the Basic Skills Assessment Test to determine placement in courses leading to an associate degree. Alternative placement tests will be administered to students without TOEFL scores or with scores below 550 (213 on the computerized version or 79-80 on the Internet-based version). 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 form. 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 avail-

able 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. Each college campus has an International Student Advisor to assist students to locate 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 form 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. That 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 attend classes to the extent normally required.
4. Become employed without authorization.
5. 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 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. They almost always change from year-to-year. The best way to determine current tuition and fee rates is to check on the Miami Dade College Web site, www.mdc.edu, or to check at the Admissions & Registration Office at any MDC campus. The fees listed below are an example - for planning purposes only - of rates for

the 2012-13 year only.

A. Registration Fees 2014-15 – College Credit Courses

1. Florida Residents*
Matriculation
Total. \$114.22 per credit
2. Non-Florida Residents*
Matriculation
Total. \$398.51 per credit

B. Registration Fees 2014-15 – Baccalaureate Courses

1. Florida Residents*
Total. \$125.89 per credit
2. Non-Florida Residents*
Total. \$531.97 per credit

C. Registration Fees 2014-15 – 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. Service fee includes the following fees: scholarship and capital improvement. Note: Fees are subject to change.

D. Special Fees and Charges

1. **Admission Application Processing Fee** – All new college credit students are assessed a \$30.00 nonrefundable admissions application processing fee. This fee must be paid when you submit the application.

*Please note that some programs may require a different application fee. For further information contact the program director:

2. **Bachelor's Degree In-Program Admission Application Processing Fee** – All students admitted to an in-program Bachelor's degree are assessed a \$25.00 nonrefundable admissions application processing fee.
3. **International Student Admission Application Processing Fee** – All new international students are assessed a \$50.00 nonrefundable admissions application processing fee.
4. **Virtual College Fee** – Virtual College classes have an additional fee of \$15.00 per credit (i.e., \$45.00 for a 3-credit course).

5. **Late Registration Fee** – College credit students registering on or after the first day of classes will be assessed a \$50.00 nonrefundable late registration fee. Please see the Academic Calendar for dates.
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 \$30.00 per credit nonrefundable fee is charged for institutional credit by exam.
8. **Special Course Fees** – Variable fees are charged in certain courses to cover the use of special supplies, materials, equipment or facilities. Such fees are listed on the student schedule.
9. Special fees in music courses that offer private lessons range from \$60.00 to \$300.00.

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:
 - \$31.50 per term for In-State Residency
 - \$126 per term for Out-of-State Residency

Fee Policy for Repeated Courses

The Florida legislature (F.S. 1009.28 and 1009.285) has enacted policies affecting 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.

State law 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.

Excess Hours Advisory

Section 1009.286, Florida Statutes, establishes an “excess hour” surcharge for students seeking baccalaureate degrees at state universities. It is critical that students, including those entering Florida College System institutions, are aware of the potential for additional course fees. ‘Excess hours’ are defined as hours that go beyond 115 percent of the hours required for a baccalaureate degree program. For example, if the length of the program is 120 credit hours, students may be subject to an excess hour surcharge for any credits attempted beyond 138 credit hours (115 x 120 percent).

All students whose educational plan may include earning a bachelor's 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 System students intending to transfer to state universities 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 matriculation and tuition fees are made only if students withdraw from (drop) the course via the Web (and the drop is confirmed) or at any campus Registrar's Office using a withdrawal card by the 100 percent refund deadline printed on the class schedule.

The one-time college credit admissions application fee and the late regis-

tration fee are not refundable. Refunds are processed as soon as possible after the refund deadline and should be received within 30 days after classes begin. Refund for matriculation, tuition or any special fees paid by Visa or MasterCard will be credited back to the credit card used for payment. Refund for matriculation, tuition or any special fees paid by cash or check will be processed via the MDC Higher One Card. All students who maintain bank accounts can also pay course fees by means of e-check (electronic check). The e-check payment method is rapid and secure and can be accessed via the MDC Web page, www.mdc.edu. Miami Dade will accept a maximum of \$21,000 of foreign fund checks, for any one student, for any year, July 1 to June 30. Any bank fees charged for processing foreign fund checks will be paid by the student. A student who remits a United States bank check where the funds originated in a country other than the United States will be required to show his or her valid passport before receiving any excess funds.

1. Refund Deadlines – College Credit and Vocational Courses

Refund deadlines for each term are published in the Academic Calendar. The dates vary, so students should be sure to check the deadlines. The Academic Calendar is found on the beginning pages of this catalog, and copies are available from the Registrar's Office or on our website at www.mdc.edu. Weekday classes refer to classes meeting Monday through Friday. The number of days a student has to receive a 100 percent refund when withdrawing from courses is based on the length of the term, not individual course days.

This is an estimated refund schedule for weekday classes, for a 100 percent refund of applicable matriculation, tuition and special class (lab) fees:

For a Term With This Number of Weeks	Student Has This Many Class Days to Make an Official Withdrawal to Receive a 100 percent Refund
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*.

2. 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

1. *All fees are due and payable in full at time of registration.* Fees and charges are subject to change without notice. Cash is not to be sent by mail.

2. *Payment of Fees by Check* - Checks may be remitted to 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 student a MDC OneCard. Upon receipt the student will have to activate the card and choose their refund method preference via the HigherOne Web page (www.MDCOneCard.com). If the overage is less than \$250, then the College will issue the student a check, but the student will have to wait between nine and 20 business days. If the overage is more than \$250, the check will not be accepted and the student will have to submit a new check.

Miami Dade College will accept a maximum of \$21,000 of foreign fund checks, for any one student, for any year, July 1 to June 30. Any bank fees charged

for processing foreign fund checks will be paid by the student. A student who remits a United States bank check where the funds originated in a country other than the United States will be required to show his or her valid passport before receiving any excess funds.

3. *Payment by Credit Card* - Miami Dade College will accept MasterCard or Visa for payment of course fees and for purchases in the campus bookstore (\$15.00 or more). Charge card payments are also accepted by mail or telephone, and via the MDC Web page, www.mdc.edu. Refunds for fees paid by credit/debit cards will be refunded to the credit/debit card used for fee payment.

4. *Payment by an Employer, Company or Other Agency* - Prospective students whose registration fees will be paid in part or in full by an employer or other company or agency outside of Miami Dade College should have these arrangements approved by Student Financial Services at least two weeks prior to the expected day of registration.

5. *Payment Via Wire Transfer by International Students* - Prospective and current international students whose registration fees will be paid in part or in full by a wire transfer originating outside of the United States will complete a Wire Transfer Form, which can be obtained at the campus International Students Office or the campus Bursar's Office. Once the student has notified the campus Bursar's Office about the wire transfer, and the wire transfer is associated with the student, the campus Bursar's Office will apply those funds to any outstanding fees/obligations owed by the student.

For further information, contact Student Financial Services.

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.

Financial Aid Information

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 short-term tuition loans, 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, for lack of funds, would be unable to attend the College. The College stands ready to help students who are willing to help themselves and whose families will contribute as their income and assets permit. Well-trained financial aid officers are available to counsel and assist the student and parents seeking additional or alternative sources of aid.

Parents and prospective students 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 www.fafsa.ed.gov, at local high schools or any campus Financial Aid Office. The application process begins Jan. 1 for the academic year that begins in August. Applications completed on the Web are more accurate and have a faster turnaround. 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 of the instructions received with the SAR and, in a timely manner, provide information to the College or to the Federal Processor, if the information originally submitted has to be corrected. Students do not need to bring their SAR to the Financial Aid Office, unless specifically requested by the Financial Aid Office.

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.

Application Priority Deadline

The College priority deadline for filing for need-based financial aid is March 15, for awards that will start in August of that same year. Students should plan on submitting the FAFSA during early or mid-February to ensure that it is received and processed by March 15. Applications received after this deadline will be processed based on the availability of funds at the time the file is evaluated.

Verification

The Federal Processor selects 30 percent of the financial aid applicants for verification, to determine the accuracy of the information provided on the FAFSA. The College may also select additional applications for verification if it has reason to believe an application is incorrect or for which it has conflicting information.

If selected for verification, a student will be asked to provide additional information such as tax returns, a Verification Form, documentation of independent status, etc. Student files will not be processed until 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

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 and the MDC Institutional Grant Application will be considered for a College grant. Students must complete an MDC Scholarship Application online at www.mdc.edu/scholarships to be considered for a scholarship. Scholarship candidates may be required to submit additional materials, information and personal references.

Short-Term Loans

The Short-Term Loan is available to students who are unable to pay the full amount of their schedule by the tuition payment due date. These loans are repayable before the end of the term in which the money is borrowed or upon withdrawal from the College. To apply for this loan visit any campus Financial Aid Office with a copy of your class schedule.

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/hot/not7-60.html.

Veterans Administration Assistance

The Veterans Benefit Program is designed exclusively for providing educational assistance to veterans of the United States armed forces and eligible dependents. Miami Dade College is an approved institution for the education and training of veterans and eligible dependents under

all public laws now in effect. The College assists veterans 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. Veterans are encouraged to contact any campus Registrar's Office to obtain further information.

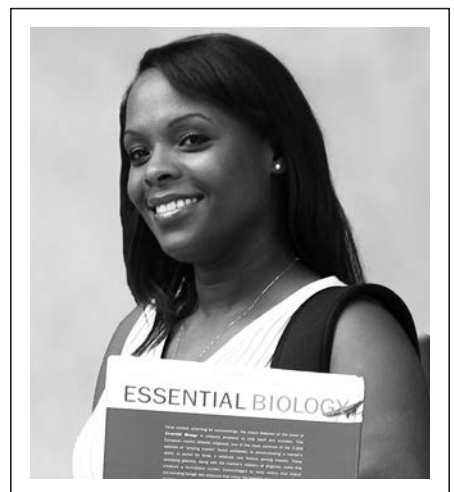
Other Sources of Financial Assistance

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.

Contact the campus coordinator of Disabled Student Services.

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/financial_aid/ 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



Call us Essential ... Call us the College

Student Services

ADVISEMENT & CAREER SERVICES

<i>Advisement</i>	31
<i>Career Services</i>	31
<i>Degree Audit</i>	31
<i>Basic Skills Assessment Program</i>	31
<i>Bookstore</i>	33
<i>College Level Academic Skills (CLAS)</i>	33
<i>Library Services</i>	33
<i>Media Services</i>	33
<i>New Student Center</i>	34
<i>Registration and Records</i>	34
<i>Services for Students with Disabilities</i>	34
<i>Student Health Services</i>	34

INFORMATION & POLICIES

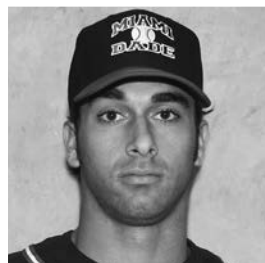
<i>AIDS Policy</i>	35
<i>Automobiles on Campus</i>	35
<i>Family Educational Rights and Privacy Act (FERPA)</i>	36
<i>Grievance Policy</i>	37
<i>Housing</i>	37
<i>Identification</i>	37
<i>Students' Rights and Responsibilities</i>	37
<i>Safety and Security</i>	37



MDC

CAMPUS ACTIVITIES

<i>Campus Activities, Clubs and Organizations</i>	38
<i>Intercollegiate Athletics</i>	38
<i>Student Government Association</i>	38
<i>Student Publications</i>	38





Advisement & Career Services

Advisement

The mission of the Academic Advisement and Career Services Department at Miami Dade College is to provide students with a quality, learning-centered experience that enables them to establish and fulfill their educational and career goals. 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.

All first-time-in-college, direct-entry students from high school will be assigned to an advisor at their orientation session after admission to the College. At that time, the student and their advisor will begin to chart an appropriate choice of courses based on the student's academic pathway, placement scores, and outside commitments.

A staff of full-time Academic and Career Advisors representing diverse educational and professional backgrounds is available to provide these services. 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 Postsecondary Education Readiness Test (PERT) 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 and before registration. At that time, the student and the advisor may chart an appropriate choice of courses based on the student's academic performance, results from the Basic Skills Assessment Test (Grade 10 FCAT 2.0 Reading, ACCUPLACER (CPT), PERT, SAT or ACT), the student's chosen program and outside commitments. Returning students should seek advise-ment from faculty in their department.

Students are especially encouraged to consult with an advisor in the term

preceding the term of expected graduation. Conferring of graduation eligibility at this time may be crucial to a student's success in meeting his or her career goal. Advisors are also available to assist students in making career choices. 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.

Career Services

The Advisement and Career Services department also assists students with career planning, transfer and employment needs. We assist students who are undecided about their academic pathway. Students are provided with assistance in clarifying their academic pathway through the use of career exploration assessments.

Career-related events, including seminars and career exploration workshops 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.

Students are able to meet with admissions representatives from colleges and universities during regularly scheduled visits to Miami Dade College campuses and during the annual College Fairs. 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 also available through the department.

Assistance with the job search is provided via annual Job Fairs and regularly scheduled employer on-campus recruitment visits as well as through access

to employment through the College's online employment system.

Degree Audit

The Degree Audit 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 College can identify the student'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 Florida Postsecondary Education Readiness Test (PERT). The PERT is not timed, and it consists of three sections: reading, writing and elementary mathematics.

The Florida Board of Education requires that first-time-in-college students who are degree-seeking 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 be tested prior to the completion of initial registration using the PERT. If a student presents valid Grade 10 FCAT 2.0 (Reading only), ACCUPLACER (CPT), SAT or ACT scores that meet or exceed the state minimum score requirements, he or she does not have to take the PERT in the related subtest area. All scores presented must have been obtained within the past two years. Note: Beginning with the 2007-1 fall term and through the 2013 - 2014 academic year, the state of Florida is allowing MDC to use FCAT 1.0 reading and mathematics scores to

exempt students from placement testing as part of an FCAT Pilot Project. To find out what minimum scores a student needs to be exempt from taking the PERT, or for other reasons why a student may not be required to take the PERT, students are asked to call the campus Testing Department. This information may also be acquired by visiting the Testing Web site, accessed from MDC's Homepage (www.mdc.edu) by clicking on "Resources," then "Testing Information." If a student does have to take the PERT, he or she should utilize the resources available on the college-wide Test Preparation website, as well as workshops offered through Community Education and other departments, before he or she takes the PERT. Note: **Effective with the beginning of the Spring (2013-2) registration period**, a student who entered ninth 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 whose English-language proficiency is insufficient to be tested on the PERT will be given the College-approved alternative for placement into appropriate English as a Second Language courses. Upon completion of the English instructional curriculum, stu-

dents will take the required PERT for further course placement. Note: **Effective with the beginning of the Spring (2013-2) registration period**, EAP students who have satisfied the 0200 level or above, either by EAP course completion or COMPASS/ESL placement, may take the mathematics subtest of the MDC Placement Test. Continuing EAP students in the 0400 level or above in all four skill areas (Speech 0400, Reading 0420, Writing 0440, Grammar EAP 0460, or their equivalents) shall take the reading and writing subtests of the MDC Placement Test after the last withdrawal date of the term for placement in EAP 1500 or 1600 levels, or ENC 1101 in the following term. New incoming students whose sub-scores in Reading, Grammar, and e-Write place them into the EAP 1500 and 1600 levels on the COMPASS/ESL shall take the MDC Placement Test prior to registering in EAP courses.

If a student's scores on one or more of the subtests of the PERT fall below



minimum passing scores established by the Florida Board of Education, he or she must enroll for at least one course in the developmental education program. In accordance with Florida law, students may use adult basic education, adult secondary education or private provider instruction as an alternative to traditional developmental education instruction.

Further evaluation may be conducted in classes, and developmental education course placement changed, based on the results of the additional assessments. If a student meets a minimum score but is identified as likely to benefit from a preparatory course, he or she may enroll in such a course.

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:

Carrie P. Meek Entrepreneurial Education Center: 305-237-1991, Room 1215. When closed, visit the North Campus bookstore.

Hialeah Campus: 305-237-8806, Room 1113, located near Public Safety;

Homestead Campus: 305-237-5042/5043, located in Building F, Room F102, next to the Cafeteria;

InterAmerican Campus: 305-237-6019/6696, located in Building 1000, Room 1114, across from the Library;

Kendall Campus: 305-237-2361/2063, located in Building 8, Room 8105, across from the Cafeteria and pool;

Medical Campus: 305-237-4178, Room 1180, located between Buildings 1 and 2;

North Campus: 305-237-1247, Room 4101, Building 4000, located just inside the breezeway and the entrance to the Cafeteria;

MDC-West: 305-237-8953, located on the first floor;

Wolfson Campus: 305-237-3236, Room 2102, Building 2, located beside Fourth Street and near the Cafe.

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.

College Level Academic Skills (CLAS)

Effective July 1, 2011, the College Level Academic Skills (CLAS) is no longer an Associate in Arts or bachelor's degree graduation requirement for students attending Florida public post-secondary institutions. For additional information please visit the Testing Criteria CLAS Information website, accessed from MDC's Homepage (www.mdc.edu) by clicking on "Resources," then "Testing Information."

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.

Library Services

The seven Miami Dade College campuses, including the two outreach center libraries, have a combined book collection of more than 325,000 titles. The libraries subscribe to hundreds of periodical titles available in print, and have access to thousands of online full-text periodicals. Access to these databases is available 24 hours a day, seven days a week, from any computer that has an Internet connection.

The libraries offer a variety of services beyond the traditional scope of lending materials and providing in-house reference. Additional services include using information resources for research, classroom instruction and an online reference service. The College libraries actively participate in arrangements with other

libraries throughout the state and nation to secure information resources not in the Miami Dade collections.

Media Services

The campus Media Services Departments have more than 35,000 media titles in a variety of formats, including the latest in multimedia resources and technology, all of which are available to students and faculty. The Media Services Departments also support the College's technology needs for audio-visual presentations.

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). Students may 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 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 partici-

pates 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 has developed special support services and accommodations to assist students with disabilities in achieving equal opportunity. These services include, but are not limited to, assistance with registration, advisement, financial aid, auxiliary aides and services, i.e., sign language interpreters and note takers, adaptive or assistive technology and testing accommodations. Tutoring may be available.

Florida law enables the College, in certain instances, to waive entrance and graduation requirements. A student with a disability may qualify for a substitution of specific courses or for the waiver of a subsection of approved College placement.

Students may find out about additional services and eligibility by calling the office of the Dean of Student Services at their campus.

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. The Fire Department Rescue Service provides first aid emergency health service.

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).



Information and Policies

AIDS Policy

Miami Dade College offers students and employees diagnosed as HIV-positive the same opportunities and benefits offered to other students and employees. These include access to educational programs, advisement and counseling services, employment opportunities and financial aid. The College is committed to a policy of nondiscrimination in the conditions and privileges of employment for those having been diagnosed as HIV-infected, but who are otherwise qualified and physically capable of performing assigned duties and responsibilities. Except where coursework or employment requires involvement with body fluids, no special policies, procedures or rules will be imposed on students or employees diagnosed as HIV-infected that will restrict the students' participation in College activities, programs or the employees' rights to employment, use of benefits or livelihood.

The College has implemented an HIV education program for students and employees, and will adopt such work and educational procedures as necessary to maintain and utilize universal disease control procedures as defined by the Centers for Disease Control (CDC).

The individual campuses will be responsible for the initial management of students and employees who are identified as HIV-positive. Each campus president shall appoint a campus task-force responsible for overseeing the appropriateness of this management and all campus HIV education activities.

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. Students must have the MDC parking decal affixed to their car's rear window or bumper. The parking decal is issued upon acceptance to the College. Parking decals are good for one year. Updated decals are available from the Student Life Department on each campus.

Miami-Dade County and municipal police enforce traffic 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 stu-



dents 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 Culmet Metro-Rail 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. Drop-off and pick-up at the Campus are north of Building 2. The driveway is posted as a "NO PARKING" and "TOW-AWAY" 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.

InterAmerican Campus has a multi-story parking garage and several off-campus 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.

MDC-West 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 long-stand-

ing 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 93-380 (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:

- a. Student name,
- b. Major field of study,
- c. Participation in officially recognized activities and sports,
- d. Weight and height of members of athletic teams,
- e. Degrees, honors and awards received,
- f. Enrollment status (full-time, half-time, 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 at Kendall, North and Wolfson campuses, Dean of Students and Administration Support Services at Medical Center and InterAmerican campuses, and the Dean of Academic and Student Services at Hialeah and Homestead Campuses.

Housing

As a college, Miami Dade does not provide or supervise housing facilities. Two or three months' advance payment is generally required for rental housing. Out-of-area students should arrive approximately two to four weeks in advance of registration in order to locate suitable housing.

Identification

The MDCard is the official identification card for students and employees. This card will provide immediate access to the library, 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 6A-14.56, 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.

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 bookstore, Registrar's Office or the Public Safety Office. Prospective students may request a copy from the Admissions 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. At Wolfson Campus, Teatro Prometeo presents a number of productions in Spanish, and 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 All-American teams and other special awards. MDC offers first-rate 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 self-government. 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 has a circulation of 10,250 per print cycle. It is augmented by a website with video and audio content.

The Reporter is distributed college-wide and has newsrooms at the North, Wolfson and Kendall campuses:

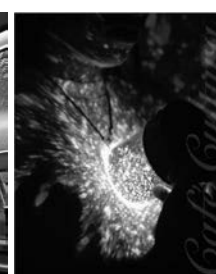
North Campus Bureau 11380 N.W.
27th Avenue, Room 4209, 305-237-1255

Kendall Campus Bureau 11011 S.W.
104th Street, Room M239, 305-237-2323

Wolfson Campus Bureau 300 N.E.
Second Avenue, Suite 1610, 305-237-3477.

The Antidote Newsletter at Medical and the *Urbana* at InterAmerican 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.

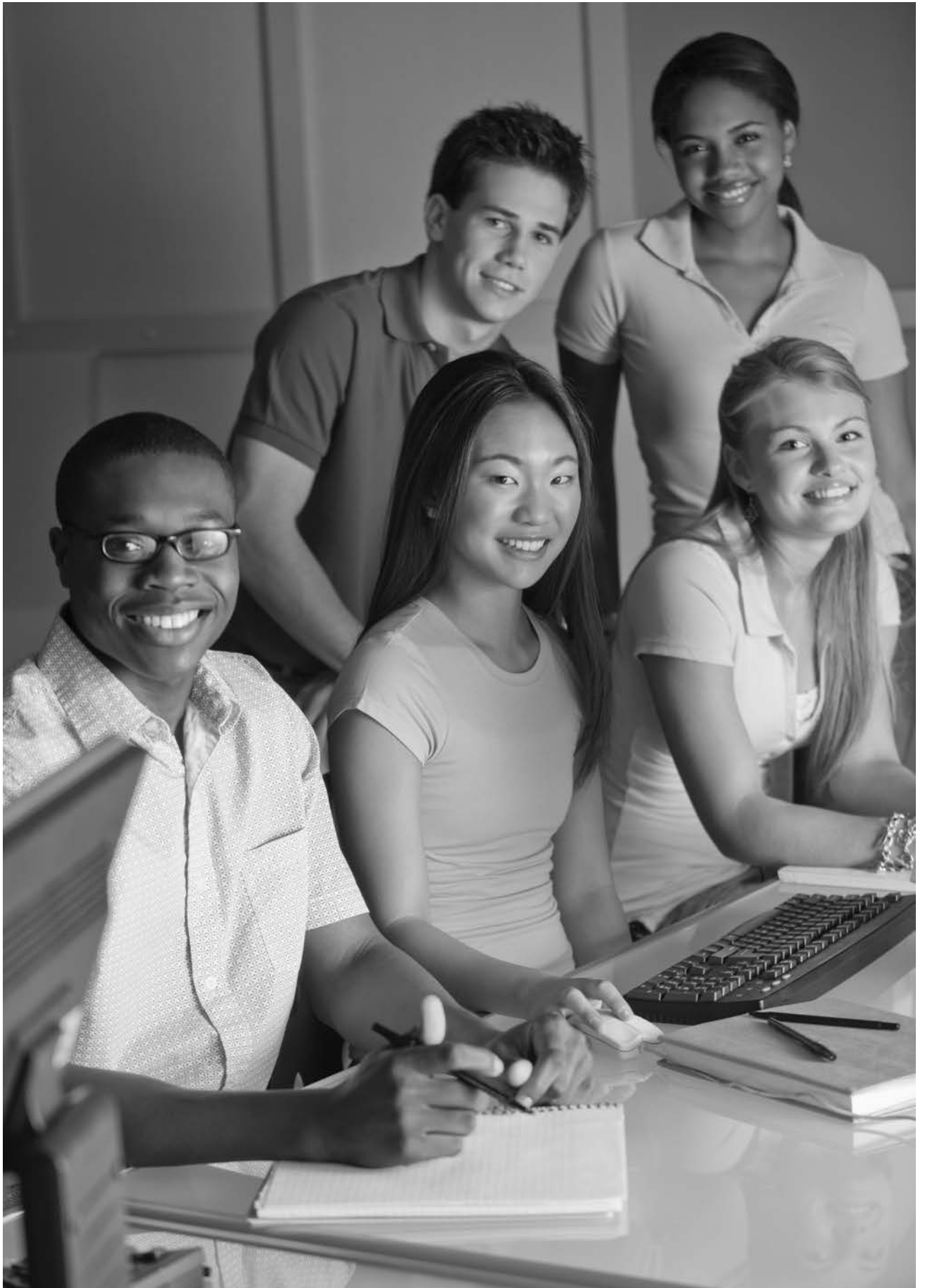


Call us Essential ... Call us the College

Academic Regulations

<i>Attendance in Class</i>	41
<i>Audit</i>	41
<i>Course Load</i>	41
<i>Grading System</i>	41
<i>Petitions Committee</i>	42
<i>Student Ombudsman</i>	42
<i>Standards of Academic Progress</i>	42
<i>Suspension</i>	43
<i>Transcript of Records</i>	43
<i>Withdrawals</i>	44





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 "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 credit.

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 between 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
U	Unsatisfactory	0

B. Not used in GPA computation:

I	Incomplete
W	Withdrew
X	Audit
S	Satisfactory
P	Progress - course requirements not completed, student must repeat
NR	Grade not reported by instructor

Final grades are available on the College's Web site following the end of the term.

Grade Point Average (GPA)

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

Example:

ENC 1101	3 credits	Grade A	(4 points) = 12
HUM 1020	3 credits	Grade C	(2 points) = 6

ISS 1120	3 credits	Grade F	(0 points) = 0
ISS 1161	3 credits	Grade B	(3 points) = 9
ART 1300C	3 credits	Grade C	(2 points) = 6
DAA 1160	1 credit	Grade B	(3 points) = 3
Total Credits 16		Total Points 36	
Divide 36 points by 16 credits = 2.25 GPA			

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 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. Students have until the end of the next major term to finish the coursework or a failing grade for the course may be assigned.

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).

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 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, Hialeah, Homestead, Medical Center, North, Kendall, Wolfson or InterAmerican Campus.

Petitions must be made by the end of the next major term (fall and spring).

Student Ombudsman

The student ombudsman is a person who serves as the initial point of contact for students who have concerns, complaints or issues involving the awarding and posting of credits or the access to courses. The student ombudsman is not a student, however, but an employee of the College. The student ombudsman has the authority to investigate the issue, as well as to arrange meetings among the involved parties in order to reach a resolution.

The ombudsman listens to student concerns and directs students to the appropriate College/campus office and College procedures/policies. Such referrals should be made for 1) Grade Appeals, 2) Petitions for Withdrawals and Refunds, 3) Standards of Academic Progress - SOAP - Appeals, 4) Discipline and 5) Sexual Harassment. In these situations, the student ombudsman acts as a referral agent. If asked, the ombudsman can assist students in completing required forms.

Standards of Academic Progress

The "Standards of Academic Progress" (SOAP) establish a formal process through which the administration and faculty at MDC can identify and provide



assistance to students who experience academic difficulty.

Most MDC students make satisfactory academic progress by maintaining a minimum 2.0 grade point average (GPA) and passing at least two-thirds of the credits for which they register. MDC alerts students who do not meet SOAP, so that their academic weaknesses may be strengthened early in their college careers. This is particularly important for students receiving financial aid, because the College's "Standards of Satisfactory Academic Progress" must be maintained to remain eligible for financial aid and veterans' educational benefits.

When academic progress has not been satisfactory, the Standards require students to limit the number of credits for which they register. They are also required to register and successfully complete a mandatory Student Life Skills (SLS1125). The Standards are not intended to discourage or penalize students who are sincerely trying to make good use of the College's instructional services. The objective of the Standards is to improve the performance of students experiencing academic difficulty. SOAP reflects the commitment of the MDC faculty and administration to provide students with as much assistance as possible to ensure success in achieving their educational goals.

Academic Standards

Standards of Academic Progress (SOAP) require students to maintain a minimum 2.0 grade point average (GPA) and to pass a minimum of two-thirds (or 67 percent) of the credits for which students register in order to maintain clear academic standing.

SOAP is not designed to penalize or discourage students; instead, the overall objective is to improve the performance of students experiencing academic difficulty. Miami Dade College strives to provide the highest quality of instructional and support services.

Students experiencing academic difficulty should speak to their academic advisor to develop an individualized educational plan to address their academic difficulties and to discuss repercussions for Financial Aid, Veteran's educational benefits and International Student status to name some examples.

Incomplete and audit grades are not

calculated to determine if a student has earned "two-thirds" of the credits registered.

Academic Warning

"Academic Warning" limits a student's enrollment to 12 credits in the fall term, 12 credits in the spring term, and 12 credits in the summer term (6 credits in the first six weeks and 6 credits in the second six weeks). This may include 3 credits of a prescribed intervention course. This may entail a study skills course, career counseling or a combination.

Academic Probation

"Academic Probation" limits a student's enrollment to 9 credits in the fall term, 9 credits in the spring term, 6 credits in the summer term, (3 credits in the first six weeks and 3 credits in the second six weeks). This limitation includes 3 credits of a prescribed intervention course. This must entail a study skills course, career counseling or a combination. Students remain on "Academic Probation" until they maintain a 2.0 overall GPA and earn credit in two-thirds of the credits for which they register.

Academic Suspension

"Academic Suspension" requires a student to discontinue enrollment at Miami Dade through the next major term. A suspended student may achieve probation status if he or she successfully appeals the academic suspension. In this case, students may continue to register on extended "Academic Probation" provided that they maintain a 2.0 term GPA and earn credit in at least two-thirds of their registered coursework.

Students who discontinue their enrollment because of suspension during a major term may re-enter the College and continue for each subsequent term of enrollment, provided they maintain a 2.0 term GPA and earn credit in at least two-thirds of the credits for which they register.

Academic Dismissal

"Academic Dismissal" is defined as the separation of students from Miami Dade College for at least 12 months. "Academic Dismissal" occurs if a student fails to meet the minimum requirements during an extended academic probation after

suspension. If after being readmitted following suspension, the student fails to meet minimum standards (maintaining a 2.0 term GPA and earning at least two-thirds of the credits for which he or she has registered), the student will be dismissed from the College.

Students are eligible to apply for enrollment to the College after the dismissal period. This request will be on an appeal basis. In order for re-enrollment to be approved, the appeal must present evidence of some change in the student's circumstances.

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.

Suspension

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.

Transcript of Records

A transcript 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 submit a written request to the Registrar's Office in order to have a transcript sent to a particular location.

Students will be unable to get a transcript if an obligation to the College

has not been satisfied. These obligations include unpaid fees or overdue loans, as well as the return of library books, audio-visual media and athletic equipment.

Withdrawals

Withdrawal from Courses

Students may withdraw from (drop) courses within the withdrawal period indicated on their class schedule. They may do so online using their MyMDC account, or in person at any campus Registrar's Office. Note that a reduction in course load may jeopardize students' athletic eligibility, financial aid and veteran benefits, and may limit participation in student activities.

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 College Prep Courses

Effective the Fall Term of 1997, 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 schedule validated 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 1997 and received an "F" grade in the course. The student enrolled again in the same course in the Spring Term 1998 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 1998. 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, E, 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 nonresident 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 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.

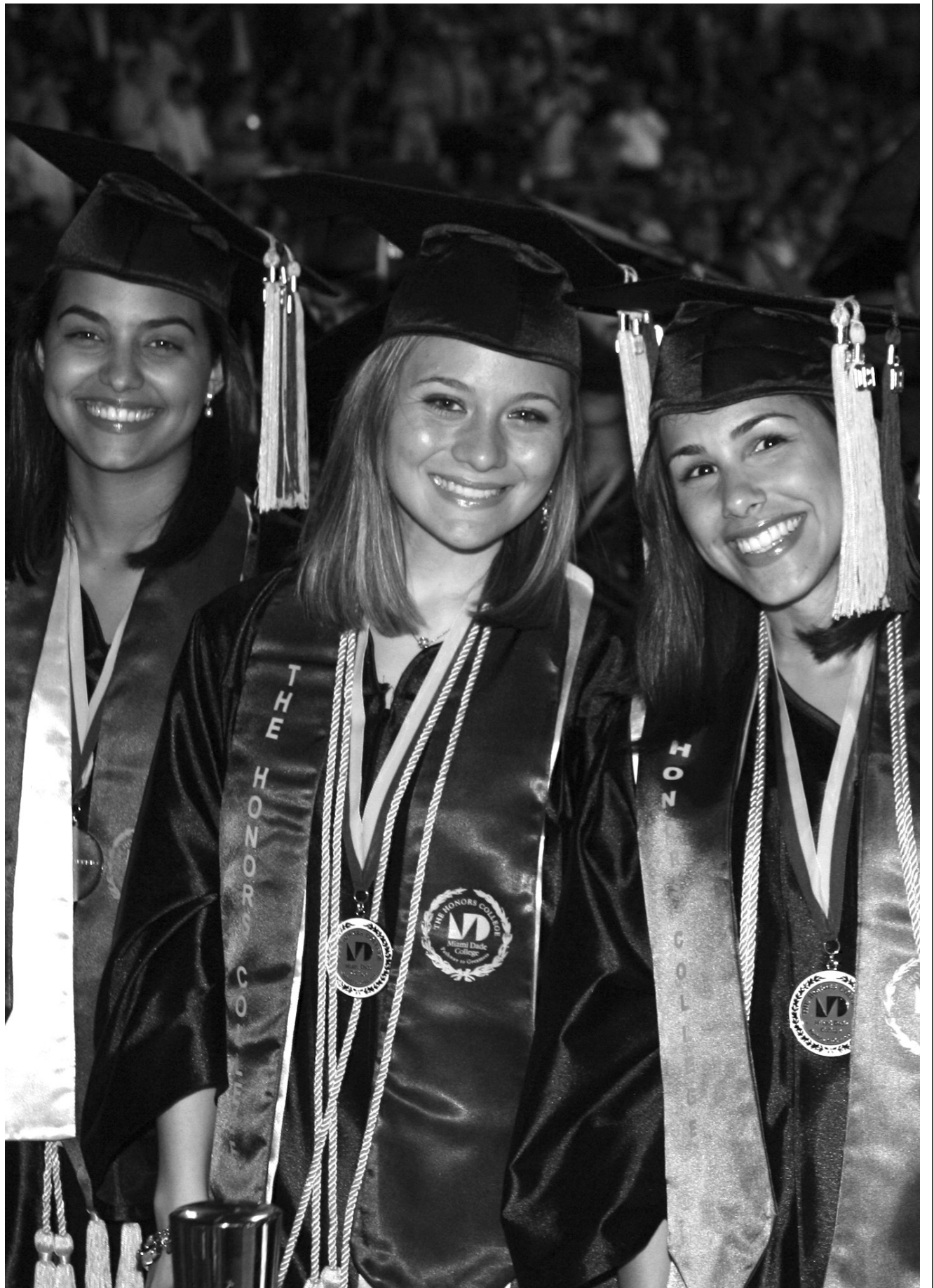


Graduation Requirements and Transfer Information

Call us Essential ... Call us the College

<i>Graduation Requirements</i>	47
<i>Continuous Enrollment for Graduation Requirements</i>	47
<i>Baccalaureate Degree</i>	47
<i>Associate in Science/Associate in Applied Science Degrees</i>	48
<i>General Education and Miami Dade College Learning Outcomes</i>	48
<i>General Education Requirements for the Associate in Arts</i>	48
<i>Other Assessment Procedures for College Level Communication and Computation Skills (6A-10.030)</i>	50
<i>General Education Requirements for the Associate in Science/Associate in Applied Science</i>	50
<i>Advanced Technical Certificate Programs</i>	50
<i>College Credit Certificate Programs</i>	51
<i>Career Technical Education Programs</i>	51
<i>Commencement</i>	51
<i>Special Recognition for Outstanding Academic Performance</i>	51
<i>Transfer Information</i>	51
<i>Articulation</i>	51
<i>State of Florida Articulation Agreement</i>	52
<i>Additional Agreements</i>	52





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. All Associate in Science/Associate in Applied Science degree-seeking students, as well as College Credit Certificate-seeking and Career and Technical Education-seeking students, must earn at Miami Dade College a minimum of 50 percent of the credits in discipline-specific courses.
2. Baccalaureate degree students must earn at Miami Dade College a mini-

imum of 50 percent of the credits in upper-division course work.

3. Different residency requirements may apply as required by programs that have special accreditation or by state regulations such as the state-wide articulation agreements.

All financial obligations must be fulfilled in order to graduate from any MDC program of study.

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 higher, and a minimum GPA of 2.0 is required to earn a baccalaureate degree.

Note: Higher grade point averages may be required for specific majors.

General Education (and Former Gordon Rule)

Satisfactory completion (a minimum GPA of 2.0) 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)

Satisfactory completion of §1007.25, F.S., the "Gordon Rule," requirements.

Computer Skills Competency

All MDC degree-seeking students and students seeking a college credit certificate in School of Business programs 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 "Resources," then "Testing Information".

Requirements for Admission to Upper Division

Students should review the baccalaureate degree section of this catalog and contact the Office of Admissions for specific baccalaureate admission criteria.

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 6A-10.02412 and pursuant to Florida Statute 1007.262, 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/ Associate in Applied Science Degrees

The Associate in Science degree is awarded to students who successfully complete one of the occupational, education or allied health programs. These areas of study are designed primarily to prepare students for immediate employment. However, credits earned for many courses in these programs are acceptable to upper-division colleges should the student decide to continue toward a four-year degree. To be granted upper-division standing at a Florida public institution, the student must meet the admissions criteria.

Requirements for Associate in Science/Associate in Applied Science Degrees

1. Complete an approved program with 60 or more credits specified in courses numbered 1000-2999, including the general education core courses.
2. Earn a minimum 2.0 GPA in the 60 or more program credits presented for graduation.
3. Complete the general education courses with a minimum of a C grade.
4. Meet Residency for Graduation requirements. See this section within the catalog.

General Education and Miami Dade College Student Learning Outcomes

General Education: Student Learning Outcome Foundation

Academic study has its foundation in the required courses and designated elective areas of general education. Through this coursework, the student begins the acquisition of fundamental knowledge, skills and attitudes. What begins in specified general education coursework is reinforced and expanded through the general and intentional presence of Student Learning Outcomes throughout each student's degree program and cocurricular learning.

Student Learning Outcomes: A Promise between Students and Faculty

All students who graduate from MDC – regardless of major or degree type – have 10 things in common: the college-wide student learning outcomes summarized below. Developed after many conversations with students, faculty, alumni and members of the business community, the outcomes are part of all programs regardless of major or degree type. They will help students to succeed in their chosen field, to strengthen the life skills critical to their future and to become lifelong learners.

1. **Communications** – Knowing what you have learned does not mean much if you cannot express it. All students should be able to communicate well.
2. **Quantitative Analysis** – Numbers are everywhere, from the calories in your favorite soda to political polls. All students should be able to process, understand and accurately analyze numerical data.
3. **Critical/Creative Thinking and Scientific Reasoning** – There is no guarantee that you will know all the answers by the time you graduate, but you will develop the skills to think through a situation and arrive at a logical conclusion.
4. **Information Literacy** – Why are there concerns about Wikipedia as an acceptable research tool? By the time you graduate, you will know the pros and cons of using Internet resources and be able to locate relevant and accurate information resources.
5. **Global, Cultural and Historical Perspectives** – Thanks to the World Wide Web and telecommunication, we are aware of many ways of life across the world. In order to succeed in this global society, students need to develop an appreciation of various cultures and an understanding of different points of view.
6. **Personal, Civic and Social Responsibility** – While at MDC, you'll develop skills to fulfill not only your personal responsibilities, but also your roles as citizens and members of a global community. For example, John Donne said, "No man is an island." Everything you do and say has an impact on those around you.

7. **Ethical Thinking** – Prevalent among newspaper headlines from the past 10 years are terms like "Stem Cell Research," "Cheating in High School" and "Euthanasia." Your course of study will help you develop strategies and values in ethical thinking to help you understand these and other controversial issues.
8. **Computer and Technology Usage** – You can probably surf the Net and send emails already, but there are many other powerful tools at your fingertips. Before you graduate, you will learn how to use word processing, spreadsheets, databases and presentation programs.
9. **Aesthetic Appreciation** – Appreciating the creative process is an essential part of being a well-rounded individual.
10. **Natural Systems and the Environment** – How do our consumption patterns affect the natural environment? Is tap water a pure substance or a mixture? How does carbon dioxide affect our atmosphere? An understanding of natural systems is important in caring for your health and the world around you.

General Education Requirements for the Associate in Arts

To receive an Associate in Arts, students must complete 36 "General Education" credits with the minimum grade requirement of "C" (except in the three "General Education" elective credits). **Designates "Gordon Rule" course.

Students must complete the following (updated information located at <https://sisvsr.mdc.edu/ps/sheet.aspx>):

GENERAL EDUCATION REQUIREMENTS FOR THE ASSOCIATE IN ARTS

1. **COMMUNICATIONS** (6 credits)
 - **ENC 1101 English Composition 1
 - **ENC 1102 English Composition 2
2. **ORAL COMMUNICATIONS** (3 credits)
 - **ENC 2300 Advanced Communication Skills
 - **LIT 2480 Issues in Literature and Culture

**SPC 1017 Fundamentals of
Speech Communication

3. HUMANITIES (6 credits)

Students must take 3 credits from Group A and 3 credits from Group B. Students are encouraged to choose courses from different disciplines in Group A and B. Students who are pursuing architecture, art, dance, interior design or music should choose courses for their respective pathway identified in both Group A and Group B.

Group A (3 Credits)

- ARH 1000 Art Appreciation
DAN 2100 Dance Appreciation
HUM 1020 Humanities
MUL 1010 Music Appreciation
PHI 2604 Critical Thinking and Ethics
(Prereq: ENC 1101)
ARC 2701 History of Architecture 1
(*architecture; dept. permission required*)
ARH 2050 Art History 1
(*art; dept. permission required*)
IND 1100 History of Interiors 1
(*interior design; dept. permission required*)
MUH 2111 Survey of Music History 1
(*Music; dept. permission required*)

Group B (3 credits)

- **ARH 2740 Cinema Appreciation
**LIT 2120 A Survey of
World Literature
**MUL 2380 Jazz and Popular
Music in America
**PHI 2010 Introduction to Philosophy
**THE 2000 Theatre Appreciation
**ARC 2702 History of Architecture 2
(*Prerequisite: ARC 2701; architecture; dept. permission required*)
**ARH 2051 Art History 2
(*Prerequisite: ARH 2050; art; dept. permission required*)
**DAN 2130 Dance History 1
(*dance; dept. permission required*)
**IND 1130 History of Interiors 2
(*Prerequisite: IND 1100; interior design; dept. permission required*)
**MUH 2112 Survey of Music History 2
(*Prerequisite: MUH 2111; music; dept. permission required*)

4. BEHAVIORAL/SOCIAL SCIENCE (6 credits)

Students must take 3 credits from Group A and 3 credits from Group B. If students select a 1000 level course from one group, they must select a 2000 level course from the other group.

Group A (3 credits)

- ANT 2410 Introduction to
Cultural Anthropology
DEP 2000 Human Growth
and Development
ISS 1161 The Individual in Society
CLP 1006 Psychology of
Personal Effectiveness
PSY 2012 Introduction to Psychology
SYG 2000 Introduction to Sociology

Group B (3 credits)

- AMH 2010 History of the
United States to 1877
AMH 2020 History of the
United States since 1877
**ECO 2013 Principles of
Economics (Macro)
ISS 1120 The Social Environment
POS 2041 American Federal
Government
WOH 2012 History of World
Civilizations to 1715
WOH 2022 History of World
Civilizations from 1715

5. NATURAL SCIENCE (6 credits)

Students must take 3 life sciences and 3 physical sciences credits, excluding labs.

Life Sciences (3 credits)

- | | | |
|----------|----------|-----------|
| BOT 1010 | BSC 2010 | OCB 1010 |
| BSC 1005 | BSC 2020 | PCB 2033 |
| BSC 1030 | BSC 2085 | PCB 2340C |
| BSC 1050 | BSC 2250 | ZOO 1010 |
| BSC 1084 | HUN 1201 | |

Physical Sciences (3 credits)

- | | | |
|----------|------|----------|
| AST 1002 | GLY* | PHY* |
| CHM* | MET* | PSC 1121 |
| ESC* | OCE* | PSC 1515 |

* = any course with this prefix (excluding labs)

Students pursuing one of the natural sciences, architecture, engineering, nursing and allied health pathways should select the appropriate sequence of courses beginning with one of the following:

- | | | |
|-----------|----------|----------|
| BSC 2010 | CHM 1045 | PHY 2053 |
| BSC 2085* | PHY 2048 | |

* = Students are strongly recommended to complete CHM 1033/1033L prior to registering for BSC 2085/2085L.

6. MATH (6 credits) (Gordon Rule: no writing required)

Any 6 credits excluding labs:

- | | | |
|----------|----------|----------|
| MAC | MAS | QMB 2100 |
| MAD 2104 | MGF | STA 2023 |
| MAP | MTG 2204 | |

7. REQUIRED GENERAL

EDUCATION ELECTIVE (3 credits)

Select 3 credits from any of the following options.

- Cross-Cultural Studies
ANT 2410 GEO 2420 LIT 2480
ECO 2013 INR 2002 SYG 2230
EDG 2701 ISS 2270 WOH 2012
EEX 2000 LIT 2120 WOH 2022
- Any approved general education course previously listed but not used to satisfy another general education requirement
- Any **AST, BOT, BSC, CHM, GLY, MET, OCE, PHY, PSC, ZOO, HUN 1201, PCB 2033** or linked lab
- Any **MAC, MAP, MAS, MGF, MTG 2204, STA 2023, QMB 2100** (excluding labs)
- Computer Science: 1 to 3 credit transferable computer course
- Health - Wellness: **HSC 1121, HSC 2400, HLP 1080 or HLP 1081**
- Any 3 credit introductory course that satisfies statewide general education requirements:
ACG 2021 EDF 1005 PSY 2012
AMH 2010 LIT 2120 REL 2300
ANT 2410 PHI 2010 SYG 2000
ARH 1000 PHY 2048 THE 2000
CHM 1045 POS 2041
ECO 2013 POS 2112
- Any foreign language course at the 2000 level.
- Sign Language: **ASL 2160C or ASL 2200C**

8. COMPUTER COMPETENCY

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.

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

- (1) 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.
- (2) 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:
 - (a) 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.
 - (b) 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.
 - (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.

- (3) 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.

Specific Authority 1001.02(1), (2)(n) FS. Law Implemented 1001.02 FS., Section 15, Chapter 87-212, Laws of Florida. History-New 1-11-82, Formerly 6A-10.30, Amended 6-8-88, 12-18-05.

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

General Education Requirements for the Associate in Science/ Associate in Applied Science Degrees

To receive an Associate in Science degree, students must complete the following courses or the approved substitution identified on the program outline and earn a minimum of a "C" grade (updated information located at <https://sisvr.mdc.edu/ps/sheet.aspx>):

Communications

ENC 1101 English Composition 1

Oral Communications

SPC 1017 Fundamentals of Speech Communications

Humanities

PHI 2604 Critical Thinking and Ethics

Behavioral Sciences

CLP 1006 Psychology of Personal Effectiveness

Math/Science (any 3 credits excluding labs):

Math

MAC • MAP • MGF • QMB • MAD • MAS • MTB • MTG 2204 STA 2023

Science

AST • CHM • MCB • PCB 2033 • ZOO • BOT • GLY • MET • PSC • BSC • HUN 1201 • OCE • PHY

To receive an Associate in Applied Science degree, students must complete the General Education Requirements identified on the program outlines and earn a minimum "C" grade.

In order to be eligible to enroll in the communications courses, students must achieve specified scores on the reading and the writing assessments. Students who do not demonstrate the required proficiency on these assessments must register for developmental education courses.

Computer Competency

By the 16th earned college-level credit (excluding ESL, ENS, EAP, and developmental education courses), a student must have attempted CGS 1060, an equivalent college credit course, CTS 0050 (formerly CGV 0010), or the CSP.

OR

By the 31st earned college-level credit (ESL, ENS, EAP, and developmental education courses), a student must have demonstrated computer competency by passing CGS 1060, an equivalent college credit course, CTS 0050 (formerly CGV 0010), or the CSP.

Advanced Technical Certificate Programs

The Advanced Technical Certificate is available to students who have already been awarded an Associate in Science degree 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 certificate (updated information located at <https://sisvsr.mdc.edu/ps/sheet.aspx>).

College Credit Certificate Programs

A College Credit Certificate is awarded to students who complete all course requirements for state-approved college credit certificate programs offered at MDC. All college credit certificate program courses also apply toward the related Associate in Science/Associate in Applied Science degree (updated information located at <https://sisvsr.mdc.edu/ps/sheet.aspx>).

Career Technical Education Programs

To receive a Career Technical Education Certificate (formerly V.C.C.), students must successfully complete all courses specified within the program, meet the reading and computational skills required for the particular program and apply for graduation (updated information located at <https://sisvsr.mdc.edu/ps/sheet.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 deadlines 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 GPA of 3.5 or above for 12 or more credits earned in the fall or spring term, and for 6 or more credits earned in the summer A or summer B terms.

Letter of Congratulations - the campus academic dean 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 cumulative GPA of 3.5-3.69 is required to graduate with Honors.

Honors and Distinction

A 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 cumulative GPA of 3.7 or higher.

Highest Honors and Distinction

A 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 college-level credits leading to an

Associate degree, with a minimum 3.5 GPA and the student must be currently enrolled. Upon graduation, initiated students will have the designation noted on their transcript.

Transfer Information

Graduating with an Associate in Arts, or with a transferrable Associate of Science/Associate in Applied Science degree, guarantees MDC graduates the following benefits:

- Admission priority when applying to institutions in Florida's State University System over those students seeking to transfer prior to completing their degree program.
- Junior standing when transferring to a State University System institution in Florida
- Waiver of freshman admission standards such as SAT/ACT scores
- Acceptance of at least 60 semester credit hours and waiver of General Education Core requirements.

Miami Dade College offers baccalaureate degrees in several areas of study and students who meet the admissions criteria may apply at: <https://sisvsr.mdc.edu/admission2/default.aspx>.

Campus Advisement & Career Services Offices offer students a variety of 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 Campus Advisement & Career Services Offices.

Articulation

Articulation is a system designed to provide for smooth movement of students from high school, through the Florida College System and into the State University System of Florida. There are a number of types of articulation agreements which create special opportunities for students (updated information located at <http://www.mdc.edu/asa/articulation.asp>).

Inter-Institutional Articulation Agreement

Miami Dade College and Miami-Dade County Public Schools have created

inter-institutional articulation agreements. These range from the formalized New World School of the Arts, to agreements for transfer of specific adult vocational credits to Associate in Applied Science and Associate in Science degrees, certificate programs and tech prep articulation agreements (updated information located at <http://www.mdc.edu/asa/articulation.asp>).

State of Florida Articulation Agreement

- (1) 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.
- (2)(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.
 - (3) 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 offered by an institution of interest.
 - (4) 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.
 - (5) 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.
- (6) 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, community college students holding an Associate in Arts 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.

For additional information relating to articulation agreements, contact the Academic Advisement Department, The Honors College, the Career/Transfer Center at the campuses, the Collegewide Office of School and College Relations or visit www.mdc.edu/asa/articulation.asp.

Call us Essential ... Call us the College

Academic Programs

BACCALAUREATE DEGREES

<i>Bachelor of Applied Science</i>	55
<i>Bachelor of Science</i>	56
<i>Post-Baccalaureate Certificate</i>	58

ASSOCIATE DEGREES

<i>Associate in Arts Degree Pathways</i>	59
<i>Associate in Science/Associate in Applied Science Degrees</i>	66

OTHER COLLEGE CREDIT AND VOCATIONAL CREDIT PROGRAMS

<i>Advanced Technical Certificate Programs</i>	75
<i>College Credit Certificate Programs</i>	75
<i>Career Technical Education Programs</i>	83

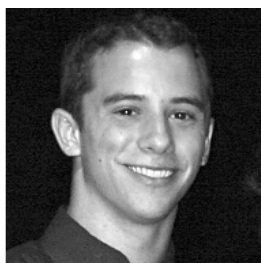
ALLIED HEALTH/NURSING PROGRAMS 89

COLLEGEWIDE SCHOOLS 101

SPECIAL ACADEMIC AND OTHER PROGRAMS 105

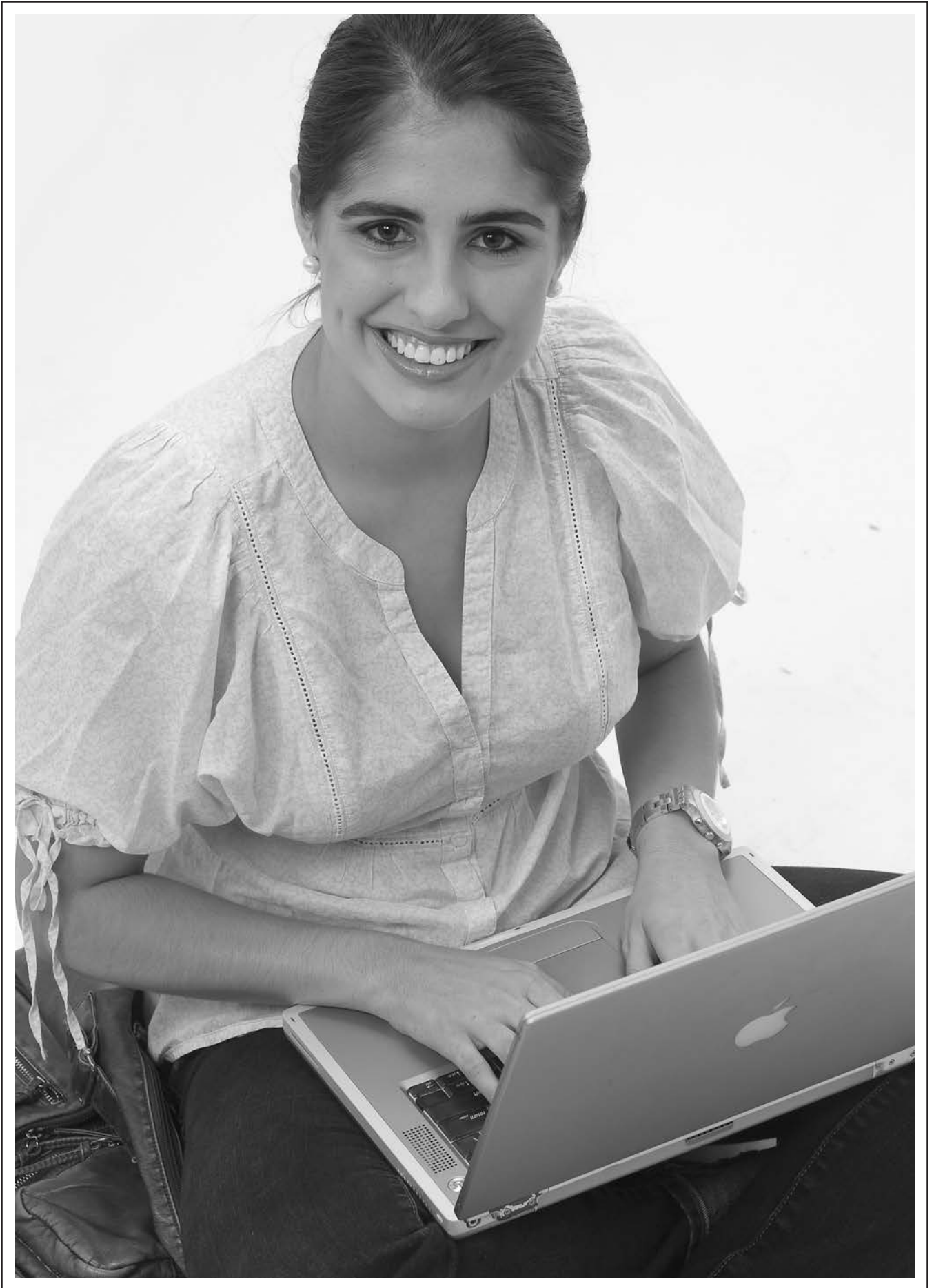
<i>Confucius Institute</i>	106
<i>Time-Saving Degree Opportunities</i>	113

SPECIAL INFORMATION 115



MDC





Baccalaureate Degrees

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 (<https://sisvsr.mdc.edu/ps/sheet.aspx>). All MDC baccalaureate programs are approved by the Florida Department of Education and are accredited by the Commission on Colleges of the Southern Association of College and Schools (SACS).

Note: All students must complete the MDC Bachelor's Application at <https://sisvsr.mdc.edu/admission2/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 6A-10.02412 and pursuant to Florida Statute 1007.262, all baccalaureate degree-seeking 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. See departmental entries 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 the second degrees are satisfied; and
- 2) 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

The Bachelor of Applied Science meets the Florida Department of Education requirements for the baccalaureate degree and respects the content of the A.S./A.A.S. degree through the appropriate transfer of both occupational and general education credit. An updated listing of baccalaureates offered by MDC are located at: <https://sisvsr.mdc.edu/ps/sheet.aspx>

Film, Television & Digital Production

The Bachelor of Applied Science with a major in Film, Television and Digital Production degree is designed to provide the South Florida workforce with a highly skilled applicant pool to fulfill job demands and to provide an affordable opportunity for students completing either an Associate in Science or an Associate in Arts to continue seamlessly and complete a baccalaureate degree. Graduates of the Bachelor of Applied Science with a major in Film, Television and Digital Production degree will be prepared with the abilities and skills needed to succeed in the film and television industry.

Please Note: Students in all programs should check their individualized degree audit report to determine the specific graduation policies in effect for their program of study. 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.

Admission Requirements:

- Completion of an Associate in Science degree or Associate in Arts from a regionally accredited institution **OR** a minimum cumulative of 60 semester hours from a regionally accredited institution, including 4 credits applicable to the program curriculum, including ENC 1101 and MAC 1105 or equivalent.
- Have a minimum cumulative GPA of 2.0 or higher.
- Successful completion of the Florida Common Prerequisite coursework (FIL 1030 and FIL 1100).

Health Sciences with an Option in Physician Assistant Studies

The Bachelor of Applied Science with a major in Health Sciences with an Option in Physician Assistant Studies (concentration) consists of 130 total semester credits that incorporate A.A. and A.S. lower-division coursework. Students will complete course work in basic sciences, general studies, clinical medicine, history and physical examination techniques, surgical, clinical and practice management skills. 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.

Please Note: Students in all programs should check their individualized degree audit report to determine the specific graduation policies in effect for their program of study. 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.

Admission Requirements:

Applicants who meet program requirements will be placed into the selection pool. Selection priority will be granted according to the following:

- An earned A.S. degree in Physician Assistant Studies from a regionally accredited institution
- Successful completion of the Physician Assistant National Certifying Examination (PANCE)
- Cumulative GPA of 2.50, 2.75 in science courses, and 2.50 in Physician Assistant coursework
- Completed Health Form
- Successful completion of a background investigation and a drug screen.

Public Safety Management

The Bachelor of Applied Science with a major in Public Safety Management is

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.

Please Note: Students in all programs should check their individualized degree audit report to determine the specific graduation policies in effect for their program of study. 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.

Admission Requirements:

- An earned Associate in Science degree or Associate in Arts from a regionally accredited institution OR completion of a minimum of 60 semester hours from a regionally accredited institution.
- Students must have a minimum, cumulative GPA of 2.0

Supervision & Management

The Bachelor of Applied Science degree with a major in Supervision and Management provides an opportunity for students completing an associate's degree to complete a bachelor's degree seamlessly. Graduates of the Bachelor of Applied Science with a major in Supervision and Management will be prepared with the abilities and skills needed to succeed as a manager or supervisor in the dynamic and global business environment. The Bachelor of Applied Science with a major in Supervision and Management prepares graduates with the hands-on training necessary to meet workforce demands.

Please Note: Students in all programs should check their individualized degree audit report to deter-

mine the specific graduation policies in effect for their program of study. 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.

Admission Requirements:

- An earned Associate in Science, Associate in Applied Science or Associate in Arts from a regionally accredited institution. Or:
- Completion of a minimum of 60 semester hours from a regionally accredited institution, including 45 credits applicable to the program curriculum, including ENC 1101 or its equivalent.
- A minimum cumulative GPA of 2.0 or higher.

Supply Chain Management

The Bachelor of Applied Science degree with a major in Supply Chain Management (BAS-SCM) 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 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.

Please Note: Students in all programs should check their individualized degree audit report to determine the specific graduation policies in effect for their program of study. 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.

Admission Requirements:

- Earned Associate in Science (AS-Transportation and Logistics or business related fields) with a minimum of 15 general education credits or Associate in Arts from a regionally accredited institution.
- OR
- A minimum of 60 semester hours from a regionally accredited institution, including completion of all general education requirements.
- Completion of the Common Prerequisite courses applicable to the program, with a minimum grade of "C" in each: ACG 2021, ACG 2021L, ACG 2071, ACG 2071L, ECO 2013, ECO 2023, MAN 2021, TRA 1154, and TRA 2010
- A minimum cumulative GPA of 2.5 or higher.

BACHELOR OF SCIENCE

The Bachelor of Science degree meets the Florida Department of Education requirements for the baccalaureate degree and is used for professional areas of study. An updated listing of baccalaureates offered by MDC are located at: <https://sisvsr.mdc.edu/ps/sheet.aspx>

Biological Sciences

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 as all students seeking an A.A. Students may choose from a variety of electives in science and general education to complete their degree requirements.

Admission requirements:

- Students must submit a completed Miami Dade College Admissions Application.
- An Associate in Science in Biotechnology or Associate in Arts from a regionally accredited institution

OR

- A minimum of 60 semester hours from a regionally accredited institution including a minimum of 16 semester hours of the Common Prerequisites applicable to the program, ENC 1101 or its equivalent, and MAC 1105 or higher
- A minimum cumulative GPA of 2.0 or higher on a 4.0 scale
- A minimum of 2.0 or higher on a 4.0 scale in natural science courses (Note: Common Prerequisites necessary for program admission should be earned within 10 years of admission to the baccalaureate degree. If these credits are more than 10 years old, students must consult an academic advisor.)

Students entering with an A.S. in Biotechnology 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 A.A. or an A.S. in Biotechnology degree may need additional electives to provide appropriate background for the baccalaureate degree (i.e., State-mandated Common Prerequisites or Lower-Division program requirements).

Early Childhood Education

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 Preschool (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.

Admission requirements:

- A completed MDC application
- A completed MDC Supplemental admission application
- Recommendation form
- An earned Associate in Science (A.S.- Early Childhood) or Associate in Arts from a regionally accredited institution, including 36 semester hours of General Education coursework
- OR
- Completion of a minimum of 60 semester hours from a regionally accredited institution, including completion of all general education

requirements

- Minimum of 2.5 Grade Point Average on a 4.0 scale
- Completion of the Common Education Prerequisite courses with a minimum grade of "C" in each: EDF1005, EDF2085, EME2040, EEC1000, EEC1001, EEC2601, EEC2224, EEC2271, EEC2407
- General Knowledge Test (GKT)
- Essay section passed for admission
- All other sections (Reading, English, Math) passed or in process
- Foreign Language:
 - Students admitted to the baccalaureate degree program without meeting the foreign language admission requirement must complete such requirements prior to graduation.
 - If satisfying the requirement by high school courses, high school transcript must be presented.
- Nine credits of diversity must be taken at the lower division, including a minimum of 6 semester hours with an international or diversity focus. Eligible courses will be determined with assistance of a MDC School of Education advisor.
- Completion of CGS1060 with a minimum grade of "C" or passing score on the Computer Competency Test
- Background clearance card (current)
- Student Acknowledgement of Responsibilities (signed)
- All financial obligations to Miami Dade College satisfied

Please Note: All applicants must complete the admissions process with a school of education advisor.

Education

The four-year baccalaureate degree programs in Secondary Education and Exceptional Student Education are state-approved teacher education programs. The programs prepare students to become professional teachers and pass state professional certification exams. Clinical experience in school settings is included in each course to provide practical experience and culminates with a semester of full-time internship. Please refer to the online College Catalog for specific program prerequisites (www.mdc.edu).

Students may select programs in the

following areas:

- 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)
- Physics Education (Grades 6-12)

Additionally, individuals with bachelor's degrees in other fields are able to earn teacher certification by completing courses in the SOE.

Please Note: Students in all programs should check their individualized degree audit report to determine the specific graduation policies in effect for their program of study. Requirements may change based on the year and term a student begins the Teacher Education programs at Miami Dade College. The final responsibility for meeting graduation requirements stated in the degree audit report rests with the student.

Admission Requirements:

- Passing scores on General Knowledge Test (GKT). For more information about GKT, visit the Testing Office at one of the MDC campuses.
- Completion of an A.A. from a regionally accredited college. Students with at least 60 semester credit hours of postsecondary education from an accredited college or university will be considered.
- A cumulative grade point average of 2.5 on a 4.0 scale in all postsecondary coursework (including common prerequisite coursework).
- Completion of all general education requirements and lower-division state-mandated common prerequisites, including the following three statewide Education common prerequisites:
 - EDF 1005 - Introduction to the Teaching Profession
 - EDF 2085 - Introduction to Diversity
 - EME 2040 - Introduction to Technology
- And the Miami Dade College School of Education prerequisite course:
- EEX 2000 Introduction to Special Education

Note: Grades in these three courses must be a minimum of "C."

- Applicants must clear a Level 2 background check conducted by the Florida Department of Law

Enforcement (FDLE) and the Federal Bureau of Investigation (FBI). The clearance procedures are coordinated by the School of Education for all education students.

In addition, some school districts require drug testing for student interns and/or student teachers. Students with felony arrests may wish to consider this carefully and seek advice from an advisor before applying to programs in the School of Education.

- Satisfactory completion of foreign language requirement, computer competency and financial obligations to MDC met.
- A supplemental application, Student Acknowledgement of Responsibilities and recommendation form are also required.

Prospective students are advised to ask the School of Education for current information regarding specific programs of interest.

Effective research-based practices, a technology-enhanced curriculum, clinical education, a dynamic, updated and knowledgeable faculty that models effective teaching, a supportive and caring administration and many support services are in place to ensure each student's success.

Electronics Engineering Technology

The Bachelor of Science with a major in Electronics Engineering Technology is designed to prepare students for entry level engineering positions such as Electronics Engineers, Test Engineers, Project Engineers, Electronics Manufacturing Engineers, Electronics Systems Engineers, Electronics Hardware Engineers, Technical Support Engineers, Quality Control Engineers, Reliability Engineers, Field Engineers, Processing Engineers and Sales Engineers.

Please Note: Students in all programs should check their individualized degree audit report to determine the specific graduation policies in effect for their program of study. 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.

Admission Requirements:

- Students must have an earned A.A. or A.S. degree from a regionally accredited institution or must have completed a minimum of 60 credit hours with a cumulative grade point average of 2.0 and a minimum grade point average of 2.5 in all lower-division engineering technology core courses.
- Students must have a minimum of 28 lower-division technology courses and must satisfy all course prerequisite requirements before being admitted into senior level institution engineering technology core courses.
- Students must complete MAC1105 and ENC1101 prior to being admitted into the senior level institution.

Information Systems Technology

The Bachelor of Science (BS) with a major in Information Systems Technology (IST) immerses students in information systems technology and provides skills and knowledge essential to effectively support the design, planning and management of information infrastructures and information resources within diverse organizational settings in all aspects of our increasingly digital culture and economy. The curriculum introduces concepts upon which information systems are founded and analyzes them as suitable solutions to real-world problems. The BS in IST degree program addresses the need for information systems technology professionals with systems management and development expertise.

Please Note: Students in all programs should check their individualized degree audit report to determine

the specific graduation policies in effect for their program of study. 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.

Admission Requirements:

- Earned Associate in Science (AS-Transportation and Logistics or business related fields) with a minimum of 15 general education credits or Associate in Arts from a regionally accredited institution.
OR
- A minimum of 60 semester hours from a regionally accredited institution, including completion of ENC 1101 or equivalent, CGS 1060 or equivalent.
- Completion of the Common Prerequisite courses applicable to the program, with a minimum grade of "C".
- A minimum cumulative GPA of 2.0 or higher on all lower division Computing Technology courses (earned within 5 years of admission to the BS-IST program).
- A minimum cumulative GPA of 2.0 or higher.

Nursing

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.

Please Note: Students in all programs should check their individualized degree audit report to determine the specific graduation policies in effect for their program of study. 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.

Admission Requirements:

- An active license as a registered professional nurse;

- An earned A.S. in Nursing from a regionally accredited college;
- A minimum 2.5 cumulative GPA and 2.5 GPA in Nursing coursework from a regionally accredited A.S. in Nursing program, or equivalent;
- Completed School of Nursing application with supporting documentation;
- A successfully completed background investigation and drug screening.

POST-BACCALAUREATE CERTIFICATE

Educator Preparation Institute (EPI)

The Educator Preparation Institute (EPI) is an approved Florida Department of Education intensive competency-based accelerated certification program designed for career changers who wish to become teachers. This program offers an opportunity for non-education majors who have a minimum of a bachelor's degree to become highly qualified teachers for public, charter and private school

employment in the State of Florida and obtain professional state certification. The program can be completed in less than a year.

Participants may begin their teaching careers in high-need subject areas and specializations.

Applicants interested must apply to the Florida Department of Education for a Statement of Eligibility and pass the General Knowledge Test of the Florida Teacher Certification Exam

(see <http://www.teachinflorida.com>). Candidates are encouraged to contact the School of Education for more specific details.

Please Note: Students in all programs should check their individualized degree audit report to determine the specific graduation policies in effect for their program of study. 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.





Associate in Arts Degree

A.A. Degree Pathways

Miami Dade College offers courses for a wide range of pathways in the Associate in Arts degree. The A.A. 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 University System (SUS) of Florida has identified common prerequisites for most majors. Students should see an advisor for additional information or refer to FLVC.org

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. Students may be awarded the A.A. degree only once, and students who have already earned a baccalaureate degree cannot be awarded an A.A.

Note: The A.A. does not prepare students to be eligible to take certification/licensure exams or to practice in the health care professions.

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

This pathway offers fundamental instruction in accounting and related subjects (such as economics or business). Students who wish to become accountants 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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Agriculture

Agriculture is the art, science and industry of managing the growth of plants and animals for human use. Study at MDC emphasizes a strong foundation 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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Anthropology

Anthropology studies all aspects of human life by evaluating society, evolution and culture. Course offerings prepare the student 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 pursuing anthropology should plan to obtain a Ph.D. to fully succeed

in the field.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Architecture

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 any of the universities in Florida or other states 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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Area and Ethnic Studies

The undergraduate pathway in area and ethnic studies is a flexible, interdisciplinary program that emphasizes the history, politics and literature of various groups. Students can concentrate in a specific area such as African-American or 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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Art or Art Education

This pathway offers hands-on instruction in media such as ceramics, jewelry-making and metalsmithing, painting, photography, print-making, drawing, computer art and sculpture. Additionally, the curriculum includes design, art history and education classes, so that students may work as artists or art teachers.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Atmospheric Science and Meteorology

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, broadcasting or transportation industries. Additionally, meteorologists may work with other scientists researching phenomena such as volcanoes, hurricanes and global warming.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Biology

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 students may also enter professional schools in medicine, dentistry, veterinary medicine, optometry or podiatry.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Biotechnology (Interdisciplinary Sciences)

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. Students may also enter professional schools in related disciplines.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Building Construction

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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Business Administration

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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Chemistry

Chemistry is the science that investigates the composition, properties and change of properties of elementary forms of matter. In addition to coursework in chemistry, the A.A. pathway provides science and math-intensive courses that include botany, biology, physics, geometry and calculus. 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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Computer Arts Animation

This pathway enables students to develop creative and artistic skills in conjunction with 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 film, television and video game design.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Computer Information Systems (CIS)

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 transferring to four-year institutions may major in computer information systems, computer and information sciences, information

sciences or management information systems degrees which lead to careers in systems analysis, computer application programming, database management, network services and IT support.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Computer Science

As the name suggests, Computer Science is more science-intensive than CIS. In addition to courses in programming and applications, the pathway 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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Criminal Justice Administration

The A.A. pathway in Criminal Justice Administration provides coursework which focuses on criminal justice and law, including classes in history, sociology and political science. Pre-law students will find this pathway suitable, as well as those seeking bachelor's degrees in public safety related fields such as law enforcement, corrections, security and loss prevention, probations and parole, emergency management, crime scene investigation and criminal justice. The A.A. pathway offers students a seamless transition to the MDC's Bachelor of Applied Science degree with a major in Public Safety Management.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Dance

Studio classes feature modern dance and ballet, and the pathway also includes theoretical courses. The 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, ballet, jazz, contemporary dance performance, or for students wishing to become dance teachers.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Dietetics

This pathway provides the science education needed to transfer to a four-year program in dietetics. Chemistry, biology, anatomy and physiology courses are emphasized. 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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Drama or Drama Education

This is a comprehensive pathway in all aspects of theatrical production, including lighting, costuming, make-up and stagecraft. Students 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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Economics

Economics is the study of how people produce, trade and consume goods and services. The A.A. 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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Engineering

Miami Dade College offers 10 engineering A.A. 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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

English Literature & English Education

English literature is the study of great written works and how they were shaped by historical and cultural events. This pathway also includes education courses to prepare students for careers as teachers. However, a student who graduates with a bachelor's degree in English is equipped to work in publishing and may be qualified to work as a writer in virtually any field.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Environmental Studies

The Environmental Studies pathway examines environmental issues from both ecological and sociological standpoints. It is an interdisciplinary field that

combines life sciences, social sciences and the humanities. Students at MDC take mostly science and mathematics courses to prepare for transfer into a baccalaureate program. This field is projected to grow as the need for environmental researchers, analysts, engineers and journalists grows.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Exercise Science

Exercise Science studies the relationship of physical exercise to human health and disease prevention. This pathway at MDC prepares students for transfer with coursework in human anatomy and physiology, nutrition, health and exercise. Exercise science is a growing field with professionals working in diverse settings, such as hospitals and health clubs, research facilities and sports teams. Specialists also work in corporate, industrial and educational environments.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Foreign Languages

Foreign language pathways 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, and graduates with bachelor's degrees can work almost anywhere in the world for corporations, businesses, governments, nonprofit agencies or schools.



For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Forestry

Forestry studies the ecology and economy of forest management. Students should be aware that the University of Florida is the only in-state university offering this program, with majors in forest resources, and conservation and urban forestry. Foresters manage, develop and protect woodlands and their resources (timber, water, wildlife, forage and recreational areas).

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Geology

Geologists study the structure, composition 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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Graphic or Commercial Arts

Graphic design emphasizes studio courses in design, drawing and digital techniques. This pathway provides students with occupational skills in page layout, illustration and photographic editing software with a variety of projects, leading to extensive portfolio preparation. Graduates may find work in advertising agencies, design studios, exhibition and display businesses, department stores and industrial organizations.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Health Services Administration

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. People licensed in clinical health often pursue this pathway, as do medical care professionals who do not have an undergraduate degree. The baccalaureate also prepares individuals for graduate study in this field.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

History

History is the study of the events, patterns and cycles that have shaped our present world with an emphasis on examining change and continuity over time. Depending on the area of specialization, history may examine political and economic events, social evolution and cultural developments or a combination of these. The two-year pathway at MDC prepares students for transfer with courses in American, African, Asian and Latin American history as well as surveys of world civilizations and courses covering the Holocaust and Genocide Studies. Professional historians (e.g., museum curators and educators) often pursue the doctoral degree. The bachelor's degree in history can prepare students for graduate work in law or political science, and applies to many careers requiring good writing or analytical skills.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Hospitality Administration/Travel & Tourism Management

This field combines traditional business and management education with training specific to the hospitality, travel and tourism industries. Careers in the hospitality, travel and tourism industries include hotel and restaurant, food and beverage management, and entry and mid-level positions with cruise lines, airlines, land-based tourism companies, as well as travel agencies.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Interior Design

Interior Design studies combine architecture, art and design courses, training the student to understand the relation of interior spaces to the total design of structures (including architecture, landscaping and lighting). An interior designer encounters a variety of challenging work, in professional, institutional and private settings.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>



International Relations

Students can obtain the coursework necessary to transfer to four-year programs in international relations, 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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Landscape Architecture

The A.A. pathway in landscape architecture 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 and Florida International University offer the only in-state programs in landscape architecture.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Mass Communication/Journalism

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, and 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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Mathematics

Mathematics is the science and study of numbers and shapes. It originated as a system used to model things in the universe and evolved into an essential tool in many fields of study. The Associate in Arts (A.A.) pathway in Mathematics is recommended for transfer students

planning to earn a baccalaureate degree with a major in mathematics or mathematics education, engineering and the physical sciences. Students who complete this pathway will obtain a broad and enriched background in mathematics and liberal arts, will be able to use contemporary technology to explore mathematical ideas, and will be able to effectively communicate their ideas mathematically. Courses should be selected in consultation with an advisor from the Department of Mathematics.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Music or Music Education

Music or music education students must be proficient in music theory and music history, and must be skilled performers. 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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Philosophy

Philosophy investigates the fundamental principles of being, knowledge or conduct. There are numerous systems of philosophical discourse and the two-year program 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, and the study of philosophy usually sharpens a student's analytical skills.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Physical Education Teaching and Coaching

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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Physics

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. The 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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Political Science

Political science examines the role and effects of government actions on society. The A.A. 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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Pre-Bachelor of Arts

The Pre-Bachelor of Arts pathway at MDC is designed for students who seek a general program with 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. The pathway also provides a broader range of educational opportunities than in specialized pathways. At the upper division, a major theme or area of concentration is usually required.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Pre-Law

Although no specific pathway is mandatory for Pre-Law, MDC offers courses in criminal justice, government, history and business to prepare a student for future coursework. Students should work with an advisor to determine the best four-year degree to pursue.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Pre-Medical Science/ Pre-Dentistry/ Pre-Physician's Assistant

The A.A. pathway does not prepare students to be eligible to take certification/licensure exams or to practice in the medical science, dentistry or physician's assistant (P.A.) professions. 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 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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Pre-Medical Technology

The A.A. pathway does not prepare students to be eligible to take certification/licensure exams or to practice in the medical technology profession. 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 that aid physicians in the diagnosis and treatment of patients. Most medical technologists work in hospitals, physician's public health laboratories, universities or in industry.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Pre-Nursing

The A.A. pathway does not prepare students to be eligible to take certification/licensure exams or to practice in the nursing profession. 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 (R.N.s) completing an Associate in Science degree to earn a BSN degree.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Pre-Occupational Therapy

The A.A. pathway does not prepare students to be eligible to take certification/licensure exams or to practice in the occupational therapy profession. The pathway prepares students for transfer by offering courses in human anatomy and physiology, human behavior, growth and development, along with more basic science courses. Occupational therapists use creative/recreational activities and manual skills to evaluate and treat physical and mental illnesses. 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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Pre-Optometry

The A.A. pathway does not prepare students to be eligible to take certification/licensure exams or to practice in the optometry profession. 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 (O.D.) 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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Pre-Pharmacy

The A.A. pathway does not prepare students to be eligible to take certification/licensure exams or to practice in the Pharmacy profession. 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. The University of Florida, Florida A&M University and Nova Southeastern University are the only in-state institutions that offer the baccalaureate and/or doctorate in this field.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Pre-Physical Therapy

The A.A. pathway 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 upper-division programs have selective admissions and transfer requirements vary, so students should work with an advisor. Physical therapists help rehabilitate individuals who have been disabled by injury or disease. They usually work in health care settings such as hospitals or nursing homes.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Pre-Veterinary Medicine

The A.A. pathway does not prepare students to be eligible to take certification/licensure exams or to practice in the Veterinary Medicine profession.

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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Psychology

Psychology is the science of human behavior and mental processes that affect mental and physical health. The pathway covers the science and mathematics subjects needed to transfer to a four-year institution. 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 graduate degree include teaching or counseling in a wide variety of settings.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Public Administration

This is an interdisciplinary field combining study of business, government and economics to prepare students for 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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Recreation

To prepare for upper-division work in recreation, students take courses in accounting, economics, human anatomy and physiology, and health sciences. This pathway 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 health care, fitness, and travel and tourism.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Religion

Students may compare religions of the world, study the inherent values of various religions, examine the impact of religion on culture and society and explore one religious system in depth. The two-year curriculum offers basic coursework in world and western religions, as well as an array of history courses. Students who obtain the bachelor's degree may pursue graduate theological studies or a ministerial career or they may seek work immediately in a religious organization.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Social Work

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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Sociology

Sociology is the systematic study of human interaction, that is, society, social relationships, social structures and social change. Coursework emphasizes topics such as social norms, values, social change and deviance. 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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Speech Pathology and Audiology

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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Teaching

This pathway prepares students pursuing education by providing a comprehensive curriculum in the areas of science, liberal arts and the pedagogy necessary for transfer to Florida colleges and universities, including Miami Dade's baccalaureate programs offered by the School of Education. Areas of specialization include elementary, pre-elementary/early childhood, exceptional student and secondary education. Available areas of specialization in secondary education are biology, chemistry, earth/space science, English and foreign language, mathematics, physics and social science. Additionally, a specialization in vocational secondary education is available. A curriculum appropriate to each area of specialization is featured in the specific A.A. pathway. Students should work with an advisor to determine the appropriate coursework for transfer. The MDC Bachelor of Science in Education degree, approved by the Florida Department of Education, prepares students to enter the teaching profession. Areas of specialization include: exceptional student education (K-12); secondary mathematics education (6-12) and secondary science education (6-12).

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Associate in Science/Associate in Applied Science Degrees

A.S. College Credit Programs

The two-year Associate in Science 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 A.S. degrees as appropriate, provided the degrees do not share the same classification of instructional program code (CIP). Several of the A.S. 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 A.S. degree programs have established articulation agreements with selected universities. The general education component of the A.S. degree is transferable to the upper divisions. Allied Health programs are offered at the Medical Campus.

STUDENTS IN ALL PROGRAMS SHOULD CHECK THEIR INDIVIDUALIZED DEGREE AUDIT REPORT TO DETERMINE THE SPECIFIC GRADUATION POLICIES IN EFFECT FOR THEIR PROGRAM OF STUDY. 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

*Total credits required
for the degree: 64*

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 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.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Advanced Manufacturing Technology

Associate in Science

*Total credits required
for the degree: 64*

The A.S. in Advanced Manufacturing will provide students with the opportunity to acquire the knowledge and skill sets necessary for careers in manufacturing with an emphasis in industrial device and pharmaceutical manufacturing. The program prepares students for employment as a Manufacturing Engineering Technician or Production Technician in manufacturing settings.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Air Conditioning Refrigeration/Heating Systems Technology

Associate in Science

*Total credits required
for the degree: 64*

The Air Conditioning Refrigeration/Heating Systems Technology program prepares the student to perform engineering design of air conditioning environmental control systems. The gradu-

ate will qualify for positions as an engineering technician with a consultant engineer, architect, contractor, project manager, sales engineer, maintenance or operations supervisor, and other similar air conditioning positions. The graduate may apply the degree towards a state of Florida Mechanical Contractor's License. Consult with an air conditioning advisor prior to registration.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Architectural Design and Construction Technology Associate in Science

*Total credits required
for the degree: 66*

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 and models.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Aviation Administration Associate in Science

*Total credits required
for the degree: 64.*

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.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Aviation Maintenance Management Associate in Science

*Total credits required
for the degree: 83*

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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Biomedical Engineering Technology Associate in Science

*Total credits required
for the degree: 68*

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 trouble-shooting 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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Biotechnology Associate in Science

*Total credits required
for the degree: 61*

The Biotechnology Program exposes 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

*Total credits required
for the degree: 64*

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; local, state, and federal government agencies as well as various financial institutions.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Business Administration Associate in Science

*Total credits required
for the degree: 64*

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 prepares the student for entry into the State University System Institutions as part of the A.S. to B.S. program.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Civil Engineering Technology Associate in Science

*Total credits required
for the degree: 63*

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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Computer Engineering Technology Associate in Science

Total credits required for the degree: 68

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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Computer Information Technology Associate in Science

Total credits required for the degree: 63

The Computer Information Technology program provides an opportunity for students to establish a basic foundation in computer support. 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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Computer Programming and Analysis Associate in Science

Total credits required for the degree: 63

The Computer Programming and

Analysis program provides an opportunity to establish a basic foundation in computer programming in scientific, commercial, industrial and government information technology applications. Graduates are prepared for positions as entry-level application programmers, programmer specialists, computer programmers and programmer analysts.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Court Reporting Technology Associate in Science

Total credits required for the degree: 73

Court reporters play an important part in the judicial process by providing an official record of court proceedings. Employed by the court or working on a freelance basis they can work in any of the following three professional areas: Official Court Reporter (Supreme Court, county or family court, or hearing reporting); Freelance Reporting (deposition reporting; negotiations; or arbitrations), meetings, conferences, and conventions; Captioning Reporting and CART (broadcast reporting, Web/Internet reporting, classroom reporting and CART (Communication Access Realtime Translation).

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Crime Scene Technology Associate in Science

Total credits required for the degree: 60

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. 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 with a major in Public Safety Management.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Criminal Justice Technology: Basic Law Enforcement Associate in Science

Total credits required for the degree: 64

The Associate in Science degree in Criminal Justice Technology: Basic Law Enforcement is a technical degree for the student who wishes to continue his/her education following completion of the Basic Training Academy in Law Enforcement. The Criminal Justice Technology program is designed to provide competencies for the diverse field of criminal justice. Upon successful completion of the courses in the program, the student will be awarded the Associate in Science degree in Criminal Justice Technology. There is only one A.S. program in Criminal Justice Technology. Students may select one of the three options available: basic law enforcement, generic or corrections, but the degree is awarded only once.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Criminal Justice Technology: Corrections Associate in Science

Total credits required for the degree: 64

The Associate in Science degree in Criminal Justice Technology: Corrections is a technical degree for the student who wishes to continue his/her education following completion of the Basic Training Academy in state corrections or the Basic Training Academy in county corrections. The Criminal Justice Technology program is designed to provide competencies for the diverse field of criminal justice. Upon successful completion of the courses in the program, the student will be awarded the Associate in Science degree in Criminal Justice Technology. There is only one A.S. program in Criminal Justice Technology. Students may select one of the three options available: basic law enforcement, generic or corrections, but the degree is awarded only once.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Criminal Justice Technology: Generic Associate in Science

*Total credits required
for the degree: 64*

The Associate in Science degree in Criminal Justice Technology: Generic is a technical degree for students seeking non-sworn positions in public safety professions. The Criminal Justice Technology program is designed to provide competencies for the diverse field of criminal justice. Upon successful completion of the courses in the program, the student will be awarded the Associate in Science degree in Criminal Justice Technology. The A.S. degree in Criminal Justice Technology: Generic opens up entry-level non-sworn positions in juvenile justice, private sector security, law enforcement, corrections and parole and probations. There is only one A.S. program in Criminal Justice Technology. Students may select one of the three options available: basic law enforcement, generic or corrections, but the degree is awarded to the student only once.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Culinary Arts Management Associate in Science

*Total credits required
for the degree: 64*

This 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.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Database Technology Associate in Science

*Total credits required
for the degree: 63*

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. There is only one A.S. program in Database Technology. Students may select from one of the three options listed, but the A.S. in Database Technology will be awarded to the student only once.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Drafting and Design Technology Associate in Science

*Total credits required
for the degree: 62*

Drafting and Design Technology is a highly technical program that will adequately equip the student with the ability and skills necessary for acquisitions and advancement in the engineering technical aid and professional drafting fields. Specialized areas within the program include such specifics as structural steel drafting, welding, piping, technical illustration and computer-aided drafting and design.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Early Childhood Education Associate in Science

*Total credits required
for the degree: 63*

The Early Childhood Education programs in the School of Education provide training for students who desire to enter the field of early childhood education. The program combines classroom instruction and field work experience with an emphasis on developmentally appropriate practices for young children. Within the program there is the option of earning a Florida Child Care Professional Certificate (formerly CDA-E), College Credit Certificates in Infant-

Toddler, Preschool or Administration, or Associate in Science degrees with concentrations in Infant-Toddler, Preschool or Administration. Students may also obtain a Level 1 or Level 2 Director's Credential or complete credential renewal courses. Students who complete the A.S. degree in Early Childhood Education may also earn the A.A. with a pathway with a pathway in Teaching (Pre-Elementary/Early Childhood) with some additional courses and are eligible to enter the baccalaureate programs.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Electrical Power Technology Associate in Science

*Total credits required
for the degree: 68*

The Electrical Power Technology program prepares students for employment as an electrical, mechanical, instrumentation and control technician, or in a related occupation in a nuclear power generation facility, or in a related occupation in electrical power. Graduates of this program will be prepared for entry level employment in electrical power technology-related occupations. This program content includes, but is not limited to, DC/AC circuits, power generation, instrumentation and broad, transferable skills and an understanding of the Electrical Power industry.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Electronics Engineering Technology Associate in Science

*Total credits required
for the degree: 68*

This program transfers to MDC's Bachelor of Science with a major in Electrical Engineering Technology, as well as other 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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Environmental Science Technology Associate in Science

**Total credits required
for the degree: 64**

Students pursuing the Environmental Science Technology Associate in Science degree will be able to conduct various forms of environmental sampling and analysis for either the public or private sector. There are five focus options, which give students the opportunity to specialize in a particular area of environmental science. The options are: assessment/safety compliance, watershed management, environmental science technology, hazardous materials technology and conservation ecology. Students receiving this degree will have a wide variety of skills that can be applied to the expanding environmental job market. There is only one A.S. program in Environmental Science Technology. Students may select from one of the five options listed above, but the A.S. in Environmental Science Technology will be awarded to the student only once.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Film Production Technology Associate in Science

**Total credits required
for the degree: 64**

The Film Production Technology program teaches students all aspects of the film industry through hands-on training using state-of-the-art equipment and facilities. Students learn motion picture techniques such as cinematography, lighting, audio recording, post production and editing. Students are also exposed to the business aspects of the motion picture industry including independent production, marketing and distribution.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Financial Services Associate in Science

**Total credits required
for the degree: 64**

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. There is only one

A.S. program in Financial Services with three specialization options. Students may select from one of the three options, but the A.S. in Financial Services will be awarded to the student only once.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Fire Science Technology Associate in Science

**Total credits required
for the degree: 60**

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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Funeral Services Associate in Science

**Total credits required
for the degree: 72**

Students in the Funeral Service 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 Associate in Science degree in Funeral Service Education at Miami Dade College is accredited by the American Board of Funeral Service Education Inc. (ABFSE), 3414 Ashland Ave., Suite G, St. Joseph, MO 64506; Office: 816-233-3747; www.abfse.org and approved by The Florida Board of Funeral, Cemetery and Consumer Services. Students who plan Funeral Service licensure in other states must register as student trainees with their respective state boards prior to enrollment at Miami Dade College in the Funeral Service Education curriculum. The Funeral Service Education program requires all students to pass both sections of the National Board Examination (administered by the International Conference of Funeral Service Examining Boards) with a score of 75 or higher as a requirement for graduation from Miami Dade College. The annual



passage rate of first-time takers on the National Board Examination (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.

For more information please visit <http://www.mdc.edu/main/academics/credit.aspx>.

Graphic Arts Technology Associate in Science

Total credits required for the degree: 64

The Graphic Arts Technology Associate in Science degree program is designed to give students a comprehensive background and the skills necessary to succeed in the printing and publishing industry. Miami Dade College's graphic communications department offers one of the most extensive electronic publishing teaching facilities in the United States. Students take coursework on production workflow processes from the design concept to the finished printed product. Students will get hands-on experience with graphic design, estimating, color theory, electronic scanning, page makeup, imposition, electronic color retouching and presswork. This A.S. degree may transfer to upper-division universities offering a Bachelor of Science degree in Graphic Arts or Graphic Communications.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Graphic Design Technology Associate in Science

Total credits required for the degree: 64

The Graphic Design Technology Associate in Science degree program offers students a comprehensive background in the printing and publishing industry. Students gain the skills necessary for securing employment upon successfully completing the program. Coursework includes the production workflow process from the design concept to the finished printed product. Students will get hands-on experience with graphic design, estimating, color theory, electronic scanning, page makeup and imposition, electronic color retouching and presswork. This A.S. degree may transfer to upper-

division universities offering a Bachelor of Science degree in Graphic Arts or Graphic Communications.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Graphic Internet Technology Associate in Science

Total credits required for the degree: 62

The Graphic Internet Technology program is designed to prepare creative students for a rewarding and challenging career as a Web designer. Students will develop a wide variety of Internet communications skills and will learn to design, produce and distribute communications with the Internet. Graduates will work in major corporations, Web design studios, Internet service providers, government departments and various types of communications organizations.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Hospitality and Tourism Management Associate in Science

Total credits required for the degree: 64

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 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. This program transfers to four-year institutions. See department for information.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Human Services - Addiction Studies Associate in Science

Total credits required for the degree: 73

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 services 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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Human Services - Generalist Associate in Science

Total credits required for the degree: 65

The Generalist Human Services program prepares students for employment in the network of programs and agencies that 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 in a variety of settings, such as clinics, hospitals, nursing homes, rehabilitation centers and social agencies.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Industrial Management Technology Associate in Science

Total credits required for the degree: 60

The Industrial Management Technology program is primarily designed to provide additional competencies for administrative, managerial, supervisory and technical discipline areas for personnel who have mastered technical proficiencies from prior training programs or work experiences. In addition, general education courses will be required to ensure good communication and computational skills. Most of the coursework required will enhance the prior technical skills mastered and prepare the graduate for supervisory and/or advanced technical positions.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Instructional Services Technology Associate in Science

*Total credits required
for the degree: 63*

The Instructional Services Technology program provides training for students who desire to enter the field of education as paraprofessionals. Competencies covered in this program prepare paraprofessionals to support and extend instruction and services effectively, further increasing student learning. These competencies address instructional strategies in math, science, technology, behavior management, and human growth and development, as well as principles of language acquisition and literacy development. Students who complete the A.S. degree in Instructional Services Technology may also obtain an A.A. through appropriate course selection (please consult with your advisor).

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Interior Design Technology Associate in Science

*Total credits required
for the degree: 70*

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.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Internet Services Technology Associate in Science

*Total credits required
for the degree: 63*

The Internet Services Technology program provides an opportunity to establish a basic foundation in the field of website design and programming for employment in commercial, industrial and government institutions. Graduates are prepared for positions as Web technicians, Web administrators, website developers and webmasters. Students may select one of the two options (Microsoft or Open Source). The student will be awarded the Internet Services

Technology degree only once.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Landscape & Horticulture Technology Associate in Science

*Total credits required
for the degree: 68*

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. 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 (Note: The degree is awarded only once.).

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Marketing Management Associate in Science

*Total credits required
for the degree: 64*

The Marketing Management program 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 nonprofit institution and those presently employed in marketing but seeking advancement. The A.A. pathway 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. There is only one A.S. program in Marketing Management. Students may select one of the five specializations, but the degree in Marketing Management will be awarded only once.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Music Business Associate in Science

*Total credits required
for the degree: 64*

The Music Business program is

designed for students who intend to seek employment within the music business industry. Students can choose from three career track options including: Business Management, Creative Performance and Creative Production. The Associate in Science degree in Music Business combines a traditional music curriculum with industry-related courses and experiences with a hands-on approach using state-of-the-art music technologies and facilities. Music business majors will take courses in general academics, music business, music theory, sound engineering, music ensemble, marketing, business entrepreneurship, accounting and computer applications. Students will also complete a professional internship at a music firm involved in some facet of the music industry. The Music Business curriculum includes copyright, publishing, artist development, the recording industry, sales, retailing, live concert promotion and management. Although students may choose from three career tracks within the program, only one A.S. degree in Music Business will be awarded.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Networking Services Technology Associate in Science

*Total credits required
for the degree: 63*

The Networking Services Technology program provides an opportunity to establish a basic foundation in the field of network design and administration for employment in commercial, industrial and government institutions. Graduates are prepared for positions as information technology specialists, help desk specialists, network specialists and network systems analysts.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Office Systems Technology Associate in Science

*Total credits required
for the degree: 63*

The Office Systems Technology program is designed to train information processors, secretaries and administrative professionals to meet the demands of the modern electronic office. Emphasis

is placed on technology and related skills for office workers, such as document processing, computer literacy and applications, business communication and basic accounting principles. In addition, the program objectives are designed to help students develop the interpersonal and English communication skills needed by office professionals. There is only one A.S. program for Office Systems Technology. Students may select one of the three specializations, but the student will be awarded the Office Administration degree only once.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>.

Paralegal Studies (ABA Approved) Associate in Science

*Total credits required
for the degree: 64*

The Paralegal Studies program prepares students to obtain entry-level employment in law offices, government agencies, corporations or other business organizations. It also enables people working in the field without a degree to upgrade their paralegal skills and receive a degree. The Paralegal Studies program is approved by the American Bar Association. A paralegal or legal assistant as defined by the American Bar Association is "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 the actual practice of law. While paralegals work under the supervision of attorneys, they are so much more than just "document preparers." They are valued members of the legal profession. Only courses taken from an approved ABA program and that are consistent with the competencies of equivalent legal specialty courses offered at Miami Dade College can be transferred into the program. The course(s) must be equivalent in contact hours and have been taken at an accredited college or university. No other courses are accepted.

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 Studies program at 305-237-7813 or visit our website at www.mdc.edu/wolfson/academic/LegalAssistant/default.asp

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>.

Photographic Technology Associate in Science

*Total credits required
for the degree: 64*

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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>.

Professional Pilot Technology Associate in Science

*Total credits required
for the degree: 64*

The Professional Pilot Technology program is primarily developed to meet the challenging commercial and regional airline requirements for pilots; therefore, graduates of the program will earn the following Federal Aviation Administration (FAA) Certificates: Private, Instruments, Commercial Pilot with Single and Multi-Engine Ratings. In addition, these certificates can be applied toward a Certified Flight Instructor (CFI) Certificate.

Additional Information: Cost of flight training is in addition to normal tuition costs. Contact the Aviation Department at 305-237-5950 for information and advisement.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>.

Radio and Television Broadcasting Programming Associate in Science

*Total credits required
for the degree: 64*

The Radio and Television Broadcasting program is designed for students who intend to seek employment in radio and/or television production. The curriculum provides for hands-on experience using state-of-the-art facilities essential to gaining successful employment in the highly competitive fields of radio and television production. Students will have the opportunity to participate in professional internship programs including the College's Web-based radio station MDCradio.org and its television network, MDC-TV. Students will use professional cameras, lighting, sound and editing equipment in order to build their professional broadcast-quality reel of work.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>.

Sign Language Interpretation Associate in Science

*Total credits required
for the degree: 72*

The Sign Language Interpretation program is designed to develop the skills and knowledge 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 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 A.A. pathway for those persons who wish to pursue advanced degrees in preparation for careers in special education, vocational rehabilitation or other human service fields.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>.

Telecommunications Engineering Technology Associate in Science

*Total credits required
for the degree: 64*

The Telecommunications Engineering Technology program prepares students for work as technicians in the field of telecommunications engineering. No previous experience is required to enter. The program focuses on the understanding and applying of new techniques in electronic technology for the purpose of testing, maintaining, repairing and upgrading digital as well as analog communication systems. The program is designed to be an integrated educational curriculum taught using an integrated, applied and theoretical approach.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>.*

Theatre and Entertainment Technology Associate in Science

*Total credits required
for the degree: 64*

The Theatre and Entertainment Technology program is designed to pre-

pare students for employment as theatre and entertainment technicians, sound controllers, grips, dressers, prop makers, lighting equipment operators, high riggers, lighting technicians, stage hands or to provide supplemental education for persons currently employed in these occupations. An internship is required in order to provide practical, hands-on experience.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>.*

Translation & Interpretation Studies Spanish/English Track or Haitian-Creole/English Track Associate in Science

*Total credits required
for the degree: 63*

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, hospital translators/interpreters, telephone interpreters, freelance trans-

lators/interpreters, in-house translators/interpreters for the private sector (such as translation/interpreting agencies), translators for government entities and/or organizations as well as the entertainment industry. There is a strong emphasis on the use of computer hardware and software as essential tools for translators. Included in the program is ample use of an interpretation lab for interpreting classes and practice. Prospective students are required to pass a written entrance exam in both languages to determine linguistic competence and general culture preparation.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>.*

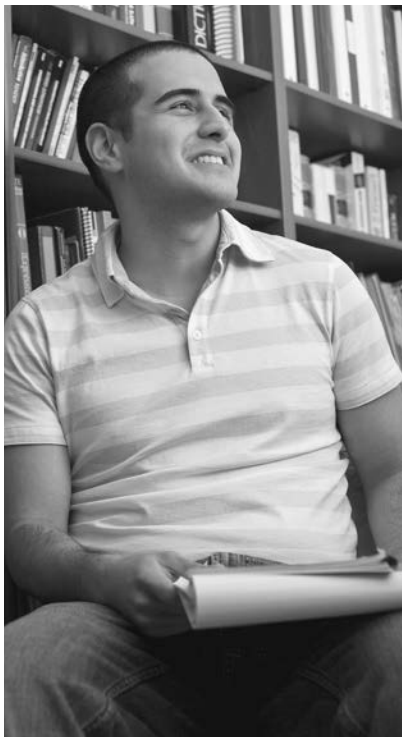


Other College Credit and Vocational Credit Programs

Advanced Technical Certificate Programs (ATC)

The Advanced Technical Certificate is available to students who have been awarded an Associate in Science degree 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 IN ALL PROGRAMS SHOULD CHECK THEIR INDIVIDUALIZED DEGREE AUDIT REPORT TO DETERMINE THE SPECIFIC GRADUATION POLICIES IN EFFECT FOR THEIR PROGRAM OF STUDY. 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

*Total credits required
for the Certificate: 33*

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.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Certified Flight Instructor Advanced Technical Certificate

*(Homestead Campus Only)
Total credits required
for the Certificate: 13*

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.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

College Credit Certificate Programs (CCC)

College Credit Certificate programs are subsets of selected Associate in Science/Associate in 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. The program's title is added to the student's transcript.

STUDENTS IN ALL PROGRAMS SHOULD CHECK THEIR INDIVIDUALIZED DEGREE AUDIT REPORT TO DETERMINE THE SPECIFIC GRADUATION POLICIES IN EFFECT FOR THEIR PROGRAM OF STUDY. 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 Applications College Credit Certificate

*Total credits required for the College Credit
Certificate: 27*

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.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Addiction Studies College Credit Certificate

*Total credits required for the
College Credit Certificate: 39*

The Addiction Studies Certificate prepares the student for employment as chemical dependency practitioners, addiction specialists or mental health professionals, or to provide supplemental training for people previously or currently employed in these occupations.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Air Cargo Agent College Credit Certificate

*Total credits required for the
College Credit Certificate: 16*

The Air Cargo Agent 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.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Airline/Aviation Management College Credit Certificate

*Total credits required for the
College Credit Certificate: 16*

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.

Additional Information: Contact the Aviation Department at 305-237-5950 for information and advisement.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Airport Management College Credit Certificate

*Total credits required for the
College Credit Certificate: 16*

The Airport Management College credit certificate program provides the student with the skills required to advance to management positions at airport (city and 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.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Automation College Credit Certificate

*Total credits required for the
College Credit Certificate: 15*

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.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Banking Management College Credit Certificate

*Total credits required for the
College Credit Certificate: 27*

The Banking Management College Credit Certificate is designed to provide students with core knowledge and skills necessary for a successful pre-career in commercial lending. The intended audience includes entry-level commercial lenders, credit management trainees, employees from other banking areas who seek a career pathway to commercial lending and others who desire a broader understanding of banking and how to service the needs of a

bank's corporate clients more effectively. Generally, positions could include first line banking supervisors, managers, administrators or financial management.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Banking Operations College Credit Certificate

*Total credits required for the
College Credit Certificate: 18*

The Banking Operations College Credit Certificate program is designed to provide students with the knowledge to analyze companies and their ability to repay loans. The intended audience includes lending support personnel, junior credit analysts and others who seek a pathway to lending. Generally, positions could also include first line banking supervisors. Positions that could be available based upon this training include Credit Analyst and Financial Analyst. This program also meets the requirements for the Center for Financial Training national industry diploma.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Banking Specialist College Credit Certificate

*Total credits required for the
College Credit Certificate: 12*

The Banking Specialist College Credit Certificate program provides students with both general knowledge and specific competencies that establish a foundation for a successful financial services career. Because the required courses provide an ideal foundation upon which to build banking-specific knowledge and skills, the certificate is well-suited for individuals planning to make banking their long-term career. In that regard, candidates for the certificate include career entry employees with clerical, administrative or customer service responsibilities who are establishing career pathways through professional development and related job experience, professionals who recently entered banking from other industries and management trainees who desire a broader understanding of the financial services industry. Generally, positions would include banking managerial support workers. Positions that could be available based upon this training include Customer

Service Representative and Financial/Banking Specialist. This program also meets the requirements for the Center for Financial Training national industry diploma.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Biotechnology College Credit Certificate

Total credits required for the
College Credit Certificate: 19

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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Business Management College Credit Certificate

Total credits required for the
College Credit Certificate: 24

The Business Management College Credit Certificate program is the third in a series of three College Credit Certificate programs designed to prepare students for the positions of manager trainee, supervisor or small business owner. It also provides supplemental training for people previously or currently engaged in these activities. The program prepares individuals to become proficient in the planning, organizing, directing and controlling of business, including organizational and human aspects, with emphasis on various theories of management, managing economic resources and decision-making. Emphasis is given to the ownership of small business enterprises. There is only one College Credit Certificate in Business Management. Students may select one of the two specializations (Management or Small Business Management), but the certificate in Business Management is awarded only once.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Business Operations College Credit Certificate

Total credits required for the
College Credit Certificate: 18

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 11 options, but the certificate is awarded only once.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Business Specialist College Credit Certificate

Total credits required for the
College Credit Certificate: 12

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 the 11 options, but the certificate is awarded only once.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Chef Apprentice College Credit Certificate

Total credits required for the
College Credit Certificate: 12

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 transferable 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).

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Cisco Certified Network Associate (CCNA) College Credit Certificate

Total credits required for the
College Credit Certificate: 16

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).



For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>

Computer-Aided Design Assistant College Credit Certificate

Total credits required for the
College Credit Certificate: 14

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.

For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>

Computer-Aided Design Operator College Credit Certificate

Total credits required for the
College Credit Certificate: 22

The Computer-Aided Design Operator College Credit Certificate program is designed to prepare students for architectural offices by developing their intermediate skills in architectural graphics 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.

For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>

Computer Programming College Credit Certificate

Total credits required for the
College Credit Certificate: 36

The Computer Programming 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 information technology applications. Graduates are prepared for positions as entry-level programmers, programmer specialists, computer programmers and senior programmers.

For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>

Computer Specialist College Credit Certificate

Total credits required for the
College Credit Certificate: 27

The Computer Specialist 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.

For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>

Crime Scene Technician College Credit Certificate

Total credits required for the
College Credit Certificate: 12

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 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 an A.S. in Crime Scene Technology.

For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>

Culinary Arts Management Operations College Credit Certificate

Total credits required for the
College Credit Certificate: 18

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. *Note: Students will be given opportunity to take the Food Safety exam for ServSafe Florida State*



Certification (State mandated for food handlers in Florida).

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Early Childhood Education - Administrator College Credit Certificate

*Total credits required for the
College Credit Certificate: 12*

This is a College Credit Certificate in early childhood education 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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Early Childhood Education - Preschool College Credit Certificate

*Total credits required for the
College Credit Certificate: 12*

This is a College Credit Certificate in early childhood education with a specialization in Preschool. The purpose of this program is to prepare students as early childhood education preschool care providers, or to provide supplementary training for persons previously or currently employed in these occupations. Students will learn essential components of quality care and education including guidance techniques, establishing and maintaining a safe and healthy learning environment, rules and regulations, family interactions, nutrition, child growth and development, and professional responsibilities with a focus on preschool ages. This CCC will allow its holder to apply for a National Child Development Associate credential in Preschool, enabling this student to pursue work as a child care provider nationally or continue their education. With an additional course, the student may apply for the Florida Child Care Professional Credential.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Entrepreneurship College Credit Certificate

*Total credits required for the
College Credit Certificate: 12*

The College Credit Certificate in Entrepreneurship prepares students to become successful entrepreneurs by providing the fundamentals of starting and operating a business. Coursework covers small business management, sales and presentation skills, the development of a business plan, and essential elements of electronic commerce. The four classes that comprise the CCC in Entrepreneurship can be used as electives in an AA degree program and also to fulfill requirements for the Associate in Science degree in Marketing Management - Entrepreneurship.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Food and Beverage Management College Credit Certificate

*Total credits required for the
College Credit Certificate: 30*

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 Applied Science degree in Hospitality and Tourism Management.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Food and Beverage Operations College Credit Certificate

*Total credits required for the
College Credit Certificate: 18*

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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Food and Beverage Specialist College Credit Certificate

*Total credits required for the
College Credit Certificate: 12*

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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Healthcare Informatics Specialist College Credit Certificate

*Total credits required for the
College Credit Certificate: 18*

Healthcare Informatics Specialist professionals are a new and emerging profession created under the HiTech Act of the American Reinvestment and Recovery Act. This professional is in high demand at physician offices and a variety of health care settings. They are experts in computerization of health data and implementation of electronic health record systems. Healthcare Informatics Specialists are an important liaison between healthcare providers and data reporting. Healthcare Informatics Specialist professionals are super users of electronic health record systems who interpret, process, collect, research, report data, and advise physicians in selecting electronic health record system software. Since knowledge of computer and current software in health care is required for Healthcare Informatics Specialist professionals, management of computerized health information is emphasized in the curriculum.

The Healthcare Informatics Specialist Program provides learning experiences that enable the student to acquire and simulate the necessary technical competencies to function effectively as a supportive health care provider in the healthcare informatics profession. To facilitate the clinical portion of the program, students are assigned to clinical facilities within South Florida.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Homeland Security College Credit Certificate

Total credits required for the
College Credit Certificate: 15

The College Credit Certificate in Homeland Security 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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Horticulture Professional College Credit Certificate

Total credits required for the
College Credit Certificate: 18

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 managers, landscape and grounds keeping managers, 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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Horticulture Specialist College Credit Certificate

Total credits required for the
College Credit Certificate: 12

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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Infant/Toddler Specialization College Credit Certificate

Total credits required for the
College Credit Certificate: 12

This is a College Credit Certificate in early childhood education with a specialization in Infant/Toddler. The purpose of this program is to prepare students as early childhood education Infant/Toddler care providers, or provide supplementary training for people previously or currently employed in these occupations. Students will learn essential components of quality care and education including guidance techniques, establishing and maintaining a safe and healthy learning environment, rules and regulations, family interactions, nutrition, child growth and development, and professional responsibilities with a focus on Infants/Toddlers. This CCC will allow its holder to apply for a National Child Development Associate credential in Infant/Toddler, enabling students to pursue work as a child care provider nationally or continue their education. With an additional course, the student may apply for the Florida Child Care Professional Credential.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Information Technology Support College Credit Certificate

Total credits required for the
College Credit Certificate: 28

The Information Technology Support College Credit Certificate 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.

Additional Information: Certificate Prerequisite: CGS1060 or a working knowledge of the Microsoft Operating System and Microsoft Office Application Suite. Operational understanding of the following microcomputer topics: Operating systems, memory, hard disks, types of central processing units (CPUs), communications ports, printer ports, display adapters and pointing devices.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Interpretation Studies: Spanish/English or Haitian- Creole/English Tracks College Credit Certificate

Total credits required for the
College Credit Certificate: 30

The Interpretation Studies College Credit Certificate program is designed to provide bilingual students with the knowledge and skills necessary to carry out the work associated with areas of interpretation (oral). Students who complete the program are prepared for positions or freelance work as court interpreters, in-house interpreters for the private sector (such as interpretation agencies), hospital interpreters and telephone interpreters. The program provides ample instruction and practice in an interpretation lab. Prospective students are required to pass a language proficiency exam to demonstrate fluency in both languages of program study.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Lean Manufacturing College Credit Certificate

*Total credits required for the
College Credit Certificate: 12*

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.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Marketing Operations College Credit Certificate

*Total credits required for the
College Credit Certificate: 24*

The Marketing Operations College Credit Certificate program is designed to prepare students for employment as advertising and display specialists; marketing; advertising; and public relations managers; managers, public relations specialists or to provide supplemental training for people previously or currently employed in these occupations.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Microcomputer Repairer/Installer College Credit Certificate

*Total credits required for the
College Credit Certificate: 15*

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.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Microsoft Database Administrator College Credit Certificate

*Total credits required for the
College Credit Certificate: 16*

The Microsoft 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 positions as database administrators and database developers.

Additional Information: Certificate Prerequisite: CGS 1060 and CGS 1560 or a working knowledge of the Microsoft operating system and Microsoft Office applications suite. Operational understanding of the following microcomputer topics: operating systems, memory, hard disks, types of central processing units (CPUs), communications ports, printer ports, display adapters and pointing devices.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Mortgage Finance College Credit Certificate

*Total credits required for the
College Credit Certificate: 31*

The Mortgage Finance College Credit Certificate program applies toward an Associate in Science in Financial Services degree. It is designed to develop entry-level professionals to work in Mortgage Finance, with an emphasis in Affordable Housing. A major goal of this program is to increase the role and level of minorities in the Mortgage Finance industry.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Network Systems Developer College Credit Certificate

*Total credits required for the
College Credit Certificate: 41*

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.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Office Management College Credit Certificate

*Total credits required for the
College Credit Certificate: 27*

The Office Management College Credit Certificate program is the third in a series of three College Credit Certificate programs designed to prepare students

for employment as administrative professionals in legal office, general office or office software applications. The legal office option is designed to prepare students for employment as a legal office manager, legal supervisor, senior legal secretary, legal transcriptionist, litigation secretary, or to provide supplemental training for those previously or currently employed in these fields. The general office option is designed to prepare students for assistant, assistant/ supervisor, executive administrative assistant, junior executive assistant, junior administrative assistant, secretary-administrative assistant, office coordinator, office manager and office supervisor. The office software applications option is designed to prepare students for employment as administrative coordinator, customer service supervisor, software applications specialist, digital publisher, document manager, executive administrative assistant, junior operations analyst, payroll specialist, personal assistant, project administrator/coordinator, proofreader, or to provide supplemental training for people previously or currently employed in these occupations. The program content for each of the three options emphasizes the skills and competencies needed to perform at management level in these specialization areas. There is only one College Credit Certificate in Office Management. Students may select one of the three options, but the certificate is awarded only once.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Office Specialist College Credit Certificate

*Total credits required for the
College Credit Certificate: 18*

The Office Specialist College Credit Certificate program is the second in a series of three College Credit Certificate programs designed to prepare students for employment as administrative professionals in legal office, general office or office software applications. The content of the program develops competency in word processing and document formatting skills, machine transcription, grammatical and vocabulary skills as well as emphasizes a general knowledge of office procedures, human relations, and administrative skills. Employment prep-

aration is for mid-level positions such as junior legal or executive secretary, legal or secretarial office assistant, legal or general office support specialist, legal proofreader, administrative support specialist, data control/specialist clerk, office systems specialist or assistant office supervisor. Supplemental training is also provided in this program for those previously or currently employed in these fields. There is only one College Credit Certificate in Office Management. Students may select one of the three options, but the certificate is awarded only once.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Office Support College Credit Certificate

Total credits required for the
College Credit Certificate: 12

The Office Support College Credit Certificate program is the first in a series of three College Credit Certificate programs designed to prepare students for employment as administrative professionals in legal office, general office or office software applications. The content of the program provides students with training in general or legal office procedures, telephone skills, records management as well as the development of human relations and English skills. Basic skills in time management, Internet and emailing are developed as well as word processing and document formatting skills. Employment preparation is for entry-level positions such as legal office or general office assistant, legal or general office support clerk, and legal or general office receptionist, information clerk, insurance processing clerk, customer service assistant, as well as software applications support service, data entry/specialist clerk, information clerk or staff assistant. Supplemental training is also provided in this program for those previously or currently employed in these fields. There is only one College Credit Certificate in Office Management. Students may select one of the three options, but the certificate is awarded only once.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Oracle Database Administrator College Credit Certificate

Total credits required for the
College Credit Certificate: 16

The Oracle 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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Oracle Database Developer College Credit Certificate

Total credits required for the
College Credit Certificate: 16

The Oracle Database Developer College Credit Certificate program is designed to provide an opportunity to establish a basic foundation in the field of database development for employment in commercial, industrial and government institutions. Graduates are prepared for positions as Oracle database developers.

Additional Information: Certificate prerequisite: CGS 1060, CGS 1541, CGS 1560, COP 1170, COP 2171, COP 2700 and COP 2740 or a working knowledge of the Microsoft Operating Systems and Microsoft Office Applications Suite. Operational understanding of the following microcomputer topics: operating systems, memory, hard disks, types of central processing (CPUs), communication ports, printer ports, display adapters and pointing devices. Operational understanding of the following programming concepts: advanced Microsoft visual basic application development, and analysis, design and programming of database systems.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Passenger Service Agent College Credit Certificate

Total credits required for the
College Credit Certificate: 16

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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Rooms Division Management College Credit Certificate

Total credits required for the
College Credit Certificate: 30

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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Rooms Division Operations College Credit Certificate

Total credits required for the
College Credit Certificate: 19

The Rooms Division 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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Rooms Division Specialist College Credit Certificate

Total credits required for the
College Credit Certificate: 13

The Rooms Division 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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Translation Studies: Spanish/English or Haitian- Creole/English Tracks College Credit Certificate

Total credits required for the
College Credit Certificate: 30

The Translation Studies College Credit Certificate program is designed to provide bilingual students with the knowledge and skills necessary to work in areas of translation (written). Students who complete the program are prepared for positions or freelance work as in-house translators for the private sector (such as translation agencies), government agencies, international corporations, law firms or health care industry. There is a strong emphasis on the use of computer hardware and software as essential tools for translators. Prospective students are required to pass a language proficiency exam to demonstrate fluency in both languages of program study.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Web Development Specialist College Credit Certificate

Total credits required for the
College Credit Certificate: 36

The Web Development Specialist College Credit Certificate program is to provide an opportunity to establish a basic foundation in the field of website design and programming for employment in commercial, industrial and government institutions. Graduates are prepared for positions as Web technicians, Web administrators and website developers.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Career Technical Education Programs (CTE)

Career Technical Education (CTE) Programs 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 CTC upon the completion of a program. CTE programs vary in length depending on the complexity of the individual program. Students entering programs greater than 450 hours (effective January, 2003) will be tested for basic communication, computation and reading skills. 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, FS).

Career Technical Certificate students are eligible for financial aid provided they are enrolled in programs greater than 600 credit hours.

Allied Health programs are offered at the Medical Campus only.

Academy of International Marketing Career Technical Certificate

Minimum Grade Level Required for
Certificate and Graduation:

Mathematics: 9; Language: 9; Reading: 9

Program Length: 600 contact hours
(20 vocational credits)

The total contact hours required for
Career Technical Certificate: 600

Participants in the Academy of International Marketing program will receive basic knowledge of documentation procedures and classification, ocean and airfreight procedures and international marketing strategies. The program prepares students for entry level positions in the field of international trade, with import/export companies, steamship lines, custom lines or freight forwarders. It also serves to upgrade skills of individuals involved in the international trade field. The program leads the student through three completion points. Test of Adult Basic Education (TABE) is required.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>



Accounting Operations Career Technical Certificate

Minimum TABE Grade Level Required for Certificate and Graduation:

Mathematics: 9; Language: 9; Reading: 9
Program Length: 900 contact hours
(30 vocational credits)

*The total contact hours required for
Career Technical Certificate: 900*

The purpose of the Accounting Operations program is to prepare students for employment as indicated in the occupational exit points. Test of Adult Basic Education (TABE) is required.

For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>

Administrative Assistant Career Technical Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 10; Language: 10; Reading: 10
Program Length: 1,050 contact hours
(35 vocational credits)

*The total contact hours required for
Career Technical Certificate: 1,050*

The Administrative Assistant program is designed to prepare the student to enter the world of commerce and government organizations. The student is led through four completion points covering general office clerk, clerical support, administrative support and administrative assistant. Test of Adult Basic Education (TABE) is required.

For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>

Air Conditioning, Refrigeration, and Heating Technology Apprenticeship Program Career Technical Certificate

Mathematics: 10; Language: 9; Reading: 9
Program Length: 10,000 contact hours
(333.33 vocational credits)

*The total contact hours required for
Career Technical Certificate: 10,000*

The Air Conditioning, Refrigeration, and Heating Technology (HVAC) Apprenticeship Program is offered by Miami Dade College in partnership with an industry apprenticeship organization. Students receive a combination of classroom instruction and on-the-job training where they learn the practical

and theoretical aspects of the highly skilled occupation of Air Conditioning, Refrigeration and Heating Technician. This is a four-year program, for a total of 10,000 hours that, upon successful completion, awards the student a Journey Level credential from the trade, as well as a Career Certificate from the College. In order to participate in the apprenticeship program, the student must be employed full-time with a participating sponsor. Test of Adult Basic Education (TABE) is required.

For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>

Bail Bond Agent Career Technical Certificate

Program Length: 120 contact hours
(4 vocational credits)

*The total contact hours required for
Career Technical Certificate: 120*

The Bail Bonding program includes introduction to the criminal justice system, duties of surety and bail bonding agents, bail bonding process, bail bond laws and regulations.

Additional Information: This course is offered through the Law Center.

For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>

Business Computer Programming Career Technical Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 9; Language: 9; Reading: 9
Program Length: 1,200 contact hours
(40 vocational credits)

*The total contact hours required for
Career Technical Certificate: 1,200*

The Business Computer Programming program offers a broad foundation of knowledge and skills expanding the traditional role of the Junior Programmer. The content includes converting problems into detailed plans; writing code in computer languages, testing, monitoring, debugging, documenting and maintaining computer programs; and designing programs for specific uses and machines. Test of Adult Basic Education (TABE) is required.

For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>

Business Supervision and Management Career Technical Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 9; Language: 9; Reading: 9
Program Length: 900 contact hours
(30 vocational credits)

*The total contact hours required for
Career Technical Certificate: 900*

The purpose of the Business Supervision and Management program is to prepare students for employment as indicated in the occupational exit points. Test of Adult Basic Education (TABE) is required.

For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>

Commercial Art Technology Career Technical Certificate

Program Length: 1500 contact hours
(50 vocational credits)

*The total contact hours required for
Career Technical Certificate: 1500*

The purpose of the Commercial Art Technology program is to prepare students for employment as artists, illustrators, or commercial designers and to provide supplemental training for persons employed in these occupational areas. This program articulates with the Associate in Science in Graphic Design Technology. Test of Adult Basic Education (TABE) is required.

For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>

CMS Law Enforcement BRT Career Technical Certificate

Program Length: 760 contact hours
(25.3 vocational credits) Required for Certificate and Graduation

*The total contact hours required for
Career Technical Certificate: 760*

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 Florida Basic Abilities Test (FBAT). For more information, please contact the School of Justice, FBAT Department and/or visit the FBAT website at www.mdc.edu.north.fbat.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Community Service Officer/ Police Service Aide Career Technical Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 10; Language: 10;
Reading: 10

Program Length: 206 contact hours
(6.87 vocational credits)

*The total contact hours required for
Career Technical Certificate: 206*

The Community Service Officer/Police Service Aide program prepares students for employment as parking enforcement specialists, traffic accident investigators and community service officers/police service aids in accordance with Chapters 316 and 943 of the Florida Statutes (F.S.). Emphasis is placed on parking enforcement, traffic accident and property crimes investigations, basic law, human skills and communication. Students are required to demonstrate skills acquired through practical exercises in traffic enforcement, traffic crash scene management and preparing reports about property crimes. Students are employed by departments and then sent to the academy for training. Awards of participation are available for completion of the parking enforcement specialist and traffic accident investigator portions of the program. Upon completion of the entire program, a Career Technical Certificate will be awarded in Community Service Officer/Police Service Aide. The program is limited to School of Justice students only.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Correctional Officer - County Career Technical Certificate

Program Length: 532 contact hours
(17.73 vocational credits) Required for Certificate and Graduation

*The total contact hours required for
Career Technical Certificate: 532*

The Correctional Officer - County program prepares students for certification as Correctional Officers in Miami-Dade County in accordance with Rule 11B-35, F.A.C., and Chapter 943, F.S. All Criminal Justice Standards and Training Commission, Department of Education and Region XIV training standards will be met. Graduates are eligible for employment with any correctional agency in the state upon successful completion of the program and passing the State Officer Certification Exam for Corrections. Topics include human behavior, law, communications, facility operations, first aid and other related topics. 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 corrections are required to pass a physical screening, physical agility, fingerprinting and background check, and a Florida Department of Law Enforcement-approved basic abilities test, such as the Florida Basic Abilities Test (FBAT). For more information on the FBAT test, please contact the School of Justice FBAT Department at 305-237-1722 and/or visit the FBAT website, at <http://www.mdc.edu/north/fbat/>.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Correctional Officer - State Career Technical Certificate

Program Length: 532 contact hours
(17.73 vocational credits) Required for Certificate and Graduation

*The total contact hours required for
Career Technical Certificate: 532*

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 website, at <http://www.mdc.edu/north/fbat/>.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Crossover from Correctional Officer to Law Enforcement Officer Career Technical Certificate

Program Length: 434 contact hours
(14.47 vocational credits) Required for Certificate and Graduation

*The total contact hours required for
Career Technical Certificate: 434*

This program provides training to Florida Certified Correctional Officers in good standing who seek certification as full-time or part-time law enforcement officers. All criminal justice standards and training, Department of Education and local standards will be met.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Customer Assistance Technology Career Technical Certificate

Minimum TABE Grade Level Required for Certificate and Graduation:

Mathematics: 9; Language: 9; Reading: 9

Program Length: 450 contact hours
(15 vocational credits)

*The total contact hours required for
Career Technical Certificate: 450*

The purpose of the Customer Assistance Technology program is to prepare

students for employment as indicated in the occupational exit points. Test of Adult Basic Education (TABE) is required.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Electricity Apprenticeship Program Career Technical Certificate
Mathematics: 9; Language: 9; Reading: 9
Program Length: 10,000 contact hours (333.33 vocational credits)

The total contact hours required for Career Technical Certificate: 10,000

The Electricity Apprenticeship program is offered by Miami Dade College in partnership with an industry apprenticeship organization. Students receive a combination of classroom instruction and on-the-job training where they learn the practical and theoretical aspects of the highly skilled occupation of Commercial Electrician. This is a four-year program, for a total of 10,000 hours that, upon successful completion, awards the student a Journey Level credential from the trade, as well as a Career Technical Certificate from the College. In order to participate in the

apprenticeship program, the student must be employed full-time with a participating sponsor. Test of Adult Basic Education (TABE) is required.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Electronic Technology Career Technical Certificate
Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 10; Language: 9; Reading: 9
Program Length: 1,400 contact hours (46.67 vocational credits)

The total contact hours required for Career Technical Certificate: 1,400

The Electronic Technology program prepares individuals to assemble, install, operate, maintain, troubleshoot and repair electronic equipment used in industry and related to the design theory and analysis of electronic systems and application. To complete this program, students should be able to use the various types of equipment found in general use throughout the electronic industry. Test of Adult Basic Education (TABE) is required.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Fire Fighter Minimum Standards Career Technical Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 10; Language: 10; Reading: 10

Program Length: 450 contact hours (15 vocational credits)

The total contact hours required for Career Technical Certificate: 450

The purpose of the Fire Fighting program is to prepare students for employment and certification as a firefighter in accordance with Chapter 633, F.S. The program is approved by the division of state fire marshall, bureau of fire standards and training. Test of Adult Basic Education (TABE) is required.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Fire Sprinkler Apprenticeship Program Career Technical Certificate

Mathematics: 9; Language: 9; Reading: 9
Program Length: 10,000 contact hours (333.33 vocational credits)



The total contact hours required for Career Technical Certificate: 10,000

The Fire Sprinkler Apprenticeship program is offered by Miami Dade College in partnership with an industry apprenticeship organization. Students receive a combination of classroom instruction and on-the-job training where they learn the practical and theoretical aspects of the highly skilled occupation of Fire Sprinkler System Installer. This is a four-year program, for a total of 10,000 hours that, upon successful completion, awards the student a Journey Level credential from the trade, as well as a Career Technical Certificate from the College. In order to participate in the apprenticeship program, the student must be employed full-time with a participating sponsor. Test of Adult Basic Education (TABE) is required.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Insurance Marketing Career Technical Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 9; Language: 9; Reading: 9
Program Length: 450 contact hours
(15 vocational credits)

The total contact hours required for Career Technical Certificate: 450

The purpose of the Insurance Marketing program is to prepare students for employment in the customer service area of the insurance industry. Test of Adult Basic Education (TABE) is required.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Legal Administrative Specialist Career Technical Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 10; Language: 10;
Reading: 10

Program Length: 1,050 contact hours
(35 vocational credits)

The total contact hours required for Career Technical Certificate: 1,050

The purpose of the Legal Administrative Specialist program is to prepare students for employment as indicated in the occupational comple-

tion points. Test of Adult Basic Education (TABE) is required.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

National Parks Service - Seasonal Law Enforcement Training Program (SLETP)

Program Length: 408 contact hours
(13.60 vocational credits)

The total contact hours required for Career Technical Certificate: 408

The CTC Seasonal Law Enforcement Training Program (SLETP) was developed to prepare a student to perform law enforcement duties in areas administered by the National Park Service. A successful graduate becomes eligible to receive a Type II law enforcement commission once a background investigation, drug testing and medical screening are completed.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Network Support Services Career Technical Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 9; Language: 9; Reading: 9
Program Length: 1,050 contact hours
(35 vocational credits)

The total contact hours required for Career Technical Certificate: 1,050

The Network Support Services program offers a broad foundation of knowledge and skills to prepare students for employment in network support services positions. The content includes instruction in computer literacy, software application support, basic hardware configuration and troubleshooting, networking technologies, security, and administration and customer service. Test of Adult Basic Education (TABE) is required.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

PC Support Services Career Technical Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 9; Language: 9; Reading: 9
Program Length: 900 contact hours
(30 vocational credits)

The total contact hours required for Career Technical Certificate: 900

The PC Support Services program offers a broad foundation of knowledge and skills to prepare students for employment in PC support services positions. The content includes software applications and operating systems including the use of advanced software/system features and programs; computer networking and network administration. The 900 contact hours include both microcomputer and general business courses. Hands-on experience is an integral part of the program. Activities include the use of microcomputers, and peripheral equipment with widely used business applications software, database and other applications. Test of Adult Basic Education (TABE) is required.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Plumbing Apprenticeship Program Career Technical Certificate

Mathematics: 9; Language: 9; Reading: 9
Program Length: 10,000 contact hours
(333.33 vocational credits)

The total contact hours required for Career Technical Certificate: 10,000

The Plumbing Apprenticeship program is offered by Miami Dade College in partnership with an industry apprenticeship organization. Students receive a combination of classroom instruction and on-the-job training developed to meet the standards established by the Bureau of Apprenticeship and Training (B.A.T.). The Plumber Apprentice Training program features courses in mechanics, chemistry and electricity, as well as heating, ventilation, pipefitting and welding. Students learn the practical and theoretical aspects of the highly skilled occupation of Plumber. Pretechnical skills training in math, measurements and safety give students the preliminary knowledge base to get started. Students will also become familiar with the latest National Standard Plumbing codes. This is a four-year program, for a total of 10,000 hours, that, upon successful completion, awards the student a Journey Level credential from the trade, as well as a Career Certificate from the College. In order to participate in the apprenticeship program, the student must be employed full-time with a participating sponsor.

Test of Adult Basic Education (TABE) is required.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Private Investigator Intern Career Technical Certificate

Program Length: 40 contact hours
(1.33 vocational credits) Required for
Certificate and Graduation

*The total contact hours required for
Career Technical Certificate: 40*

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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Private Security Officer Career Technical Certificate

Program Length: 68 contact hours
(2.3 vocational credits) Required for
Certificate and Graduation

*The total contact hours required for
Career Technical Certificate: 68*

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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Real Estate Broker Career Technical Certificate

Program Length: 72 contact hours
(2.40 vocational credits) Required for
Certificate and Graduation

*The total contact hours required for
Career Technical Certificate: 72*

The purpose of the Real Estate Marketing program is to prepare students for employment as Real Estate Brokers.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Real Estate Sales Agent Career Technical Certificate

Program Length: 63 contact hours
(2.10 vocational credits) Required for
Certificate and Graduation

*The total contact hours required for
Career Technical Certificate: 63*

The purpose of the Real Estate Sales Agent program is to prepare students for employment as Real Estate Sales Agents.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Sheet Metal Fabrication Technology Apprenticeship Program Career Technical Certificate

Mathematics: 9; Language: 9; Reading: 9
Program Length: 10,000 contact hours
(333.33 vocational credits)

*The total contact hours required for
Career Technical Certificate: 10,000*

The Sheet Metal Apprenticeship Program is offered by Miami Dade College in partnership with an industry apprenticeship organization. Students receive a combination of classroom instruction and on-the-job training where they learn the practical and theoretical aspects of the highly skilled occupation of Sheet Metal Welder. This is a four-year program, for a total of 10,000 hours that, upon successful completion, awards the student a Journey Level credential from the trade, as well as a Career Technical Certificate from the College. In order to participate in the apprenticeship program, the student must be employed full-time with a participating sponsor. Test of Adult Basic Education (TABE) is required.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Television Production Career Technical Certificate

Minimum Grade Level Required for
Certificate and Graduation:
Mathematics: 9; Language: 9; Reading: 9
Program Length: 1,650 contact hours
(55.0 vocational credits)

*The total contact hours required for
Career Technical Certificate: 1,650*

The Television Production program is a practical, hands-on introduction to the policies and procedures, equipment and tasks that must be understood by the entry-level television broadcast technician. In addition to the laboratory simulations that each course contains, extensive internship experience is provided to prepare the participant for successful

job entry. Test of Adult Basic Education (TABE) is required.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Teller Operations Career Technical Certificate

Minimum Grade Level Required for
Certificate and Graduation:
Mathematics: 9; Language: 9;
Reading: 9

Program Length: 150 contact hours
(5 vocational credits)

*The total contact hours required for
Career Technical Certificate: 150*

The Teller Operations Career Certificate program provides the hands-on training and background information needed for obtaining a position as a teller in today's banking industry. It reflects the changing responsibilities of tellers due to industry and legal compliance issues that are occurring in the financial services area.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Travel and Tourism Industry Operations Career Technical Certificate

Minimum Grade Level Required for
Certificate and Graduation:
Mathematics: 9; Language: 9;
Reading: 9

Program Length: 600 contact hours
(20 vocational credits)

*The total contact hours required for
Career Technical Certificate: 600*

The purpose of this program is to prepare students for employment in the travel industry and to provide continuing workforce education for those persons previously or currently employed in this industry. The program consists of three areas of specialization that include a core and one area of specialization that does not include the core. Upon completion of the program, the student will be credentialed as a Tour Escort.

The content should include, but is not limited to, selling, transporting, advertising, displaying and planning travel services. Test of Adult Basic Education (TABE) is required.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Allied Health/Nursing Programs

Medical Campus

The College offers a variety of educational opportunities for those who wish to prepare for health care careers. Each nursing and health science program is designed to offer a combination of technical and general education courses. The technical courses are both didactic and clinical, requiring students to apply their knowledge in a health care setting. The programs are usually two years in length and lead to an Associate in Science or Associate in Applied Science degree. The College also offers shorter College Credit Certificate and Career Technical Education programs in the health care fields.

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.

Program Admission

Students should not interpret acceptance into the College as automatic eligibility to enter the nursing or health science programs. Those desiring enrollment in a program must first consult with an advisor in the New Student Center at Medical Campus. The College encourages all interested students to attend program information sessions. There are basic admission requirements. Students must:

1. Be high school graduates or have a GED credential
2. Complete an Application for Admission to Miami Dade College.
3. Submit the completed program application by the due date to the Medical Campus.
4. Complete the Postsecondary Education Readiness Test (PERT) if required, and any required developmental education courses

5. Successfully complete HSC 0003.
6. Have a minimum grade point average (GPA) of 2.0 for all college work attempted unless waived by the program chairperson/director. (The minimum GPA may be higher for some programs.)
7. Have achieved a grade of C or higher in any general education or natural science courses required for program selection.

Individual programs may require additional testing.

An applicant who has ever been convicted of a felony or is the subject of an arrest pertaining to a controlled substance should confer with an authorized representative of the regulatory/licensing agency to determine eligibility for future credentialing and practice. Graduates are subject to the laws, policies and procedures of their respective regulatory/licensing boards. The College cannot assure licensure/certification.

Students are subject to the policies and procedures of affiliating agencies.

Admission requirements are subject to revision. Students should obtain the most current program information from the New Student Center on the Medical Campus. A program may have additional published selection criteria.

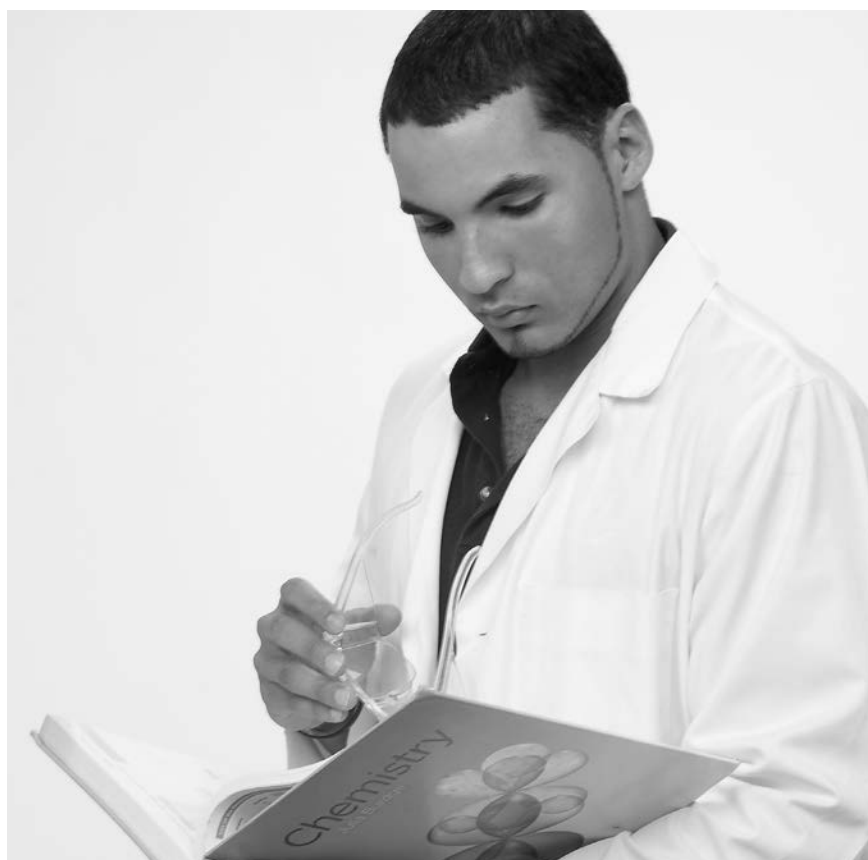
Student Selection/Progression

Most health science and nursing programs at the Medical Campus are limited in the number of students they can enroll. These enrollment limits are based on:

1. Accreditation criteria/essentials and/or state licensure regulations
2. Clinical site availability
3. On-campus clinic and/or laboratory facilities
4. Employment opportunities.

Programs will make student selection decisions on the basis of published criteria. Applicants with comparable non-collegiate preparation in nursing or an health science field may be awarded credits through examination and validation.

In keeping with its mission and goals,



and in compliance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act, the Medical Campus promotes an environment of respect and support for persons with disabilities and will make reasonable accommodations in accordance with these laws. The definition of individuals with disabilities are those who currently have, possess a record of having or are regarded as having a physical or mental impairment that substantially limits one or more major life activities.

Major life activities include caring for one's self, performing manual tasks, walking, seeing, hearing, breathing and working.

Individuals applying for admission, progression to clinical courses and graduation from a program in nursing or health science must be able to meet the physical and emotional requirements of the academic program. In addition, students admitted to programs in nursing and health sciences must possess:

- The emotional maturity and stability to approach highly stressful human situations in a calm and rational manner
- The ability to make clinical judgments using critical thinking
- The ability to adhere to ethical standards of conduct as well as applicable state and federal laws
- The ability to communicate effectively, orally and in writing, with patients and their families, colleagues, health care providers and the public.

An individual who poses a direct threat to the health or safety of others or themselves may be denied admission, progression and graduation. The College's determination that a person poses a direct threat will be based on an individualized assessment that relies on current medical evidence or on the best available evidence. This evidence will be used to assess 1) the nature, duration and severity of the risk and 2) the probability that the potential injury will actually occur. For additional information about specific, job-related standards, a student should consult the program of his or her choice.

Due to the unique responsibilities involved in the nursing and health science professions, each program reserves the right to require a student to withdraw. The programs will assert this right for the

student who does not meet all of the published technical/performance standards, and the student will be guided into another curriculum of study at the College.

Special and Additional Requirements to Specific Associate in Science Degree Programs

Emergency Medical Services

1. Entry into any Emergency Medical Services (EMS) course is restricted to students who have met with an EMS advisor and have received approval to enter the class.
2. If a student wishes to take any EMS class, he or she should note that the classes must be taken in order. Students must complete First Responder (EMS 1059, EMS 1059L), then Emergency Medical Technician (EMS 1119, 1119L, 1431) and finally, Paramedic (separate courses).
3. If a student wishes to enter Emergency Medical Technician (EMT) or paramedic courses, he or she must have passing scores on the Postsecondary Education Readiness Test (PERT) or have satisfactorily completed the required developmental education courses. Students may be exempt from the PERT as per the College catalog. Applicants must test out of the first level of developmental education on the PERT test for First Responder.
4. Students must demonstrate comprehension and proficiency in the English language at the college level.
5. Students may (at the discretion of the chairperson) receive credit for certain classes (EMS 1059, 1059L, 1119, 1119L or 1431) taken at other accredited institutions. However, students may not skip any required courses under any circumstances.
6. To enter the paramedic program, students must have successfully completed BSC 2085 and 2085L.
7. Once the paramedic prerequisites are met, students must submit applications by the deadline for the specific term desired and complete the

Paramedic Entrance Exam.

Health Information Management

Students must:

1. Demonstrate comprehension and proficiency in the English language at the College level.
2. Satisfactorily complete an end-of-program competency assessment examination.

Nursing, Associate Degree, R.N. (Three Options)

Interested students should submit an application to the School of Nursing indicating their desired date of entry and desired nursing option. Late applications may be considered if space is available. Students should contact the New Student Center on the Medical Campus for specific, detailed information.

To be eligible for selection into a nursing option, all applicants must meet previously stated criteria and have:

1. Current status as a Miami Dade College degree-seeking student with all required developmental education courses successfully completed
2. Cumulative GPA of 2.5 or higher for any college-level courses completed and a grade of C or above for any course required for the Nursing program
3. No more than a total of three grades of D, F or W in the natural science courses required for the program
4. No more than two enrollments (one D, F or W) for any individual science course required for the program.

The School of Nursing reserves the right to add, withdraw, revise or substitute courses as necessary to maintain the quality of the nursing programs.

Generic Option

This is the basic option for the student who seeks a career in nursing. The following descriptions of options are for students with specific educational or nursing backgrounds. Students can choose any option for which they are eligible. The full-time track takes four semesters to complete. Classes begin each August and January. The part-time track takes eight semesters and begins in August. Refer to the School of Nursing Information website for specific information.

Bridge Option

This is designed for licensed practical nurses (LPN) or other individuals with health care education and licensure or certification. Detailed information about eligibility requirements is found in the School of Nursing Information Booklet. The full-time track takes one year to complete. Classes begin each August and January. The part-time track takes two years and begins in January. Refer to the School of Nursing Information Booklet for specific information.

In addition to the requirements for all nursing applicants, students interested in the Bridge Option's full-time track must also, before beginning, complete all but three of the general education and science course requirements.

Furthermore, all applicants to the Bridge Option must:

1. Have LPN licensure (or have educational background in another selected health career)
2. Complete Nurse Skills Update course

Accelerated Option

This option is designed for those who hold a bachelor's degree or higher from an accredited institution in any field of study and seek a career change to nursing providers. This intensive, full-time program takes one year to complete. Classes begin August and January.

In addition to the requirements for all nursing applicants, students interested in the Accelerated Option must complete the following additional requirements to be eligible for selection:

1. Hold a bachelor's degree from an accredited institution
2. Earn a score of 106 or above on the Postsecondary Education Readiness Test (PERT).
3. Complete 15 natural science/mathematics credits, including BSC 2085, 2085L, 2086, 2086L, with a C or higher. Accelerated Option candidates are exempt from the general education core, but will be required to complete the health career core or equivalent to be eligible.
4. Individuals who hold degrees from institutions outside the United States must refer to the School of Nursing Information Booklet for more specific information about their eligibility for this nursing option.

Radiologic Technology

This program is designed for the radiologic technologist who is already a graduate of an accredited hospital radiographer program. Upon presentation of satisfactory evidence of such graduation, and proof of current registration with the American Registry of Radiologic Technologists, students may be granted 57 credits and will be able to earn the Associate in Science degree by completion of 20 additional credit hours.

Further information may be obtained by calling the Radiologic Sciences Department at Medical Campus.

Additional Offerings

Health Sciences and Related Studies Department

The Health Sciences and Related Studies Department offers many of the required college credit and vocational credit courses and labs students need for admission and graduation from the health care programs offered at Medical Campus. The natural sciences and general education courses offered by the College include:

BSC 2085/6	Human Anatomy and Physiology & Labs
CLP 1006	Psychology of Personal Effectiveness
CHM 1033	Chemistry for Health Sciences
DEP 2000	Human Growth and Development
MCB 2010	Microbiology
MNA 1345	Effective Supervision
PHI 2604	Critical Thinking and Ethics
SLS 1310	Introduction to Health Careers

These Miami Dade College courses are taught at other campuses and offered at local health care organizations.

Community Education, Medical Campus

Medical Campus provides professional continuing education for the health care community by offering courses in many of the nursing and health science disciplines. Health care providers matriculate in these courses to meet state licensure, national registry or certification requirements for their respective

board or association. Students take these courses to maintain and update competence, learn new skills in their field and/or to become multiskilled/cross-trained.

Contract Education and Custom Designed Courses

Courses can be developed on a contract-for-services basis with local and state agencies. Individual courses, or a series of offerings, can be custom designed to meet an agency's specific educational and training needs.

Refresher Courses

These courses are designed to keep health care professionals updated in their fields and to meet re-licensure or certification requirements.

Remediation Courses

These are 10-week Florida Board of Nursing-approved remediation courses designed to prepare individuals for the National Council Licensing Examinations for registered nurses (NCLEX-RN) and practical nurses (NCLEX-PN).

Licensing Examination Review Courses

These courses prepare Health Sciences and Nursing graduates for licensing examinations.

Contact Hours for Re-Licensure

These courses focus on topics relevant to health care professionals, with contact hours being provided for licensure.

The courses include CPR, ACLS, preventing medical errors, HIV/AIDS and domestic violence.

Cross-Training/Multi-Skilling

These courses build on current expertise and expand interpretation practice possibilities. The courses include EKG, phlebotomy, basic X-ray machine operator, MRI and IV therapy for LPNs.

Internships/Preceptorships

Clinically oriented programs are offered to cross-train registered nurses to assume new challenges. These programs are offered in several disciplines,

including perioperative, childbirth education, emergency room and critical care nursing.

Community Education

The College provides community-based organizations (e.g. schools, churches and nonprofit organizations) with seminars, workshops, short courses, lectures and health fairs. These events cover a broad range of health-related topics.

Associate in Science

Clinical Laboratory Science Associate in Science

Total credits required for Associate in Science degree: 76

The Clinical Laboratory Science 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.

Additional Information: Due to the limited number of students who can be accepted into the Clinical Laboratory Science program, it is important that applicants be properly informed. For information, advisement, application forms and deadline dates, interested students should contact the Department of Clinical Laboratory Science at Medical Campus.

Dental Hygiene Associate in Science

Total credits required for Associate in Science degree: 88

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.

Additional Information: Due to the limited number of students who can be accepted into the Dental Hygiene program, it is important that applicants be properly informed. For information, advisement, application forms and deadline dates, interested students should contact the Department of Dental Hygiene at Medical Campus.

Diagnostic Medical Sonography Technology Associate in Science

Total credits required for Associate in Science degree: 72

The Diagnostic Medical Sonography Technology 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.

Emergency Medical Services Associate in Science

Total credits required for Associate in Science degree: 73

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 providing pre-hospital emergency medical care and secondarily, for jobs in emergency and other acute care areas of the hospital.

Additional Information: It is important that applicants be properly informed. For information, advisement, application forms, selection criteria and deadline dates, interested students should contact the Department of Emergency Medical Services at Medical Campus.



Health Information Technology Associate in Science

Total credits required for Associate in Science degree: 67

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.

Histologic Technology Associate in Science

Total credits required for Associate in Science degree: 76

The Histologic Technology program prepares the student for employment in a wide variety 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 and equivalent licensure.

Additional Information: Due to the limited number of students who can be accepted into the Histologic Technology program, it is important that applicants be properly informed. For information, advisement, application forms and deadline dates, interested students should contact the Department of Histologic Technology at Medical Campus.

Nuclear Medicine Technology Associate in Science

Total credits required for Associate in Science degree: 75

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 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.

Additional Information: Due to the limited number of students who can be accepted into the Nuclear Medicine Technology program, it is important that applicants be properly informed. For information, advisement, application forms and deadline dates, interested students should contact the Department of Nuclear Medicine Technology at Medical Campus.

Nursing, R.N. (Accelerated) Associate in Science

Total credits required for Associate in Science degree: 72

**This program transfers to four-year institutions. See department for information.*

The Accelerated Option in Nursing is designed to prepare the student with a baccalaureate or higher in other disciplines for a career as a Registered nurse (R.N.) at the associate degree level. 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 Road NE, Suite 850 Atlanta, Georgia 30326, 404-975-5000, www.acenursing.org) and approved by the Florida Board of Nursing. Graduates are eligible to

apply to the National Council Licensing Examination for Registered Nurses (NCLEX-RN).

Selection is based on the student's cumulative grade point average (GPA) and successful completion of all prerequisite courses for the nursing program option to which they are applying. See a School of Nursing Information Booklet for more specific details about admission requirements.

Program admission requirements:

- Current status as a Miami Dade degree-seeking student with all required developmental education courses successfully completed
- Earn a score of 106 or above on the Postsecondary Education Readiness Test (PERT).
- Cumulative GPA of 2.5 or higher and a grade of C or above for any course required for the Nursing Program
- No more than a total of three grades of D, F or W in the Natural Science courses required for the program
- No more than two grades of D, F or W in any individual Natural Science course required for the program.

Additional Information: Due to the limited number of students who can be accepted into the School of Nursing associate degree programs, it is important that applicants be properly informed. For information, advisement, application forms and deadline dates, interested students should contact the New Student Center, Medical Campus.

Note: Anatomy & Physiology grades must be earned within 10 years of admission into the associate degree Nursing program. If these grades are more than 10 years old, please see an academic advisor.

The Florida Board of Nursing requires disclosure of arrests (except traffic violations) upon application to nursing programs. Upon completion, graduates are eligible to apply to write the NCLEX-RN. Final determination to become licensed rests with the Board of Nursing.

Nursing, R.N. Generic - (Full-Time Track) Associate in Science

Total credits required for Associate in Science degree: 72

** This program transfers to four-year institutions. See department for information.*

The Generic Nursing option is designed to prepare students without previous health care education for careers as registered nurses. This program is accredited by the Accreditation Commission for Education in Nursing (ACEN) (3343 Peachtree Road NE, Suite 850 Atlanta, Georgia 30326, 404-975-5000, www.acenursing.org) and approved by the Florida Board of Nursing. Graduates are eligible to apply to write the NCLEX-RN.

Selection is based on the students' cumulative grade point average (GPA) and successful completion of all prerequisite courses for the nursing program option to which they are applying. See a School of Nursing Information Booklet for more specific details about admission requirements.

Program admission requirements:

- Current status as a Miami Dade College degree-seeking student with all required developmental education courses successfully completed
- Cumulative GPA of 2.5 or higher and a grade of C or above for any course required for the Nursing program
- No more than a total of three grades of D, F or W in the Natural Science courses required for the program
- No more than two grades of D, F or W in any individual Natural Science course required for the program.

Additional Information: Due to the limited number of students who can be accepted into the School of Nursing Associate Degree Programs, it is important that applicants be properly informed. For information, advisement, application forms and deadline dates, interested students should contact the New Student Center, Medical Campus.

Note: Anatomy & Physiology grades must be earned within 10 years of admission into the associate degree Nursing program. If these are more than 10 years old, please see an Academic advisor.

The Florida Board of Nursing requires disclosure of arrests (except traffic violations) upon application to nursing programs. Upon completion, graduates are eligible to apply to write the NCLEX-RN. Final determination to become licensed rests with the Board of Nursing.

Nursing, R.N. Generic - (Part-Time Track) Associate in Science

*Total credits required for
Associate in Science degree: 72*

** This program transfers to four-year institutions. See department for information.*

The Generic Nursing Option is designed to prepare students without previous health care education for careers as Registered Nurses. This program is accredited by the Accreditation Commission for Education in Nursing (ACEN) (3343 Peachtree Road NE, Suite 850 Atlanta, Georgia 30326, 404-975-5000, www.acenursing.org), and approved by the Florida Board of Nursing. Graduates are eligible to apply to write the NCLEX-RN. The part-time track is designed for individuals who must work while they attend school.

Selection is based on the student's cumulative grade point average (GPA) and successful completion of all prerequisite courses for the nursing program option to which they are applying. See a School of Nursing Information Booklet for more specific details about admission requirements.

Program admission requirements:

- Current status as a Miami Dade degree-seeking student with all required developmental education courses successfully completed
- Cumulative GPA of 2.5 or higher and a grade of C or above for any course required for the Nursing program
- No more than a total of three grades of D, F or W in the Natural Science courses required for the program
- No more than two grades of D, F or W in any individual Natural Science course required for the program.

Additional Information: Due to the limited number of students who can be accepted into the School of Nursing associate degree programs, it is important that applicants be properly informed. For information, advisement, application forms and deadline dates, interested students should contact the New Student Center at Medical Campus.

Note: Anatomy & Physiology grades must be earned within 10 years of admission into the associate degree Nursing program. If these are more than 10 years old, please see an academic advisor.

The Florida Board of Nursing requires disclosure of arrests (except traffic viola-

tions) upon application to nursing programs. Upon completion, graduates are eligible to apply to write the NCLEX-RN. Final determination to become licensed rests with the Board of Nursing.

Nursing, R.N., Bridge - (Full-Time Track) Associate in Science

*Total credits required for
Associate in Science degree: 72*

** This program transfers to four-year institutions. See department for information.*

The Bridge Option in Nursing is designed to prepare Licensed Practical Nurses (LPN) and selected other individuals with National Licensure or Certification for practice as a Registered Nurse (R.N.). 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 Road NE, Suite 850 Atlanta, Georgia 30326, 404-975-5000, www.acenursing.org), and approved by the Florida Board of Nursing. Graduates are eligible to apply to write the NCLEX-RN. www.fldoe.org/CC/Educators/bach_app.asp

Selection is based on the student's cumulative grade point average (GPA) and successful completion of all prerequisite courses for the nursing program option to which they are applying. See a School of Nursing Information Booklet for more specific details about admission requirements.

Program admission requirements:

- Non-Licensed Practical Nurse (LPN) applicants must take NRG 051 before applying to the program.
- Licensed Practical Nurse (LPN) applicants who have been out of practice for five or more years must take NRG 051 before applying.
- Current status as a Miami Dade degree-seeking student with all required developmental education courses successfully completed
- Cumulative GPA of 2.5 or higher and a grade of C or above for any course required for the Nursing program
- No more than a total of three grades of D, F or W in the Natural Science courses required for the program
- No more than two grades of D, F or W in any individual Natural Science course required for the program

Additional Information: Due to the limited number of students who can be accepted into the School of Nursing associate degree programs, it is important that applicants be properly informed. For information, advisement, application forms and deadline dates, interested students should contact the New Student Center, Medical Campus.

Note: Anatomy & Physiology grades must be earned within 10 years of admission into the associate degree Nursing program. If these are more than 10 years old, please see an Academic advisor.

The Florida Board of Nursing requires disclosure of arrests (except traffic violations) upon application to nursing programs. Upon completion, graduates are

eligible to apply to write NCLEX-RN. Final determination to become licensed rests with the Board of Nursing.

Nursing, R.N., Bridge - (Part-Time Track) Associate in Science

*Total credits required for
Associate in Science degree: 72*

**This program transfers to four-year institutions. See department for more information.*

The Bridge Option in Nursing is designed to prepare licensed practical nurses (LPN) and selected other individuals with national licensure or certification for practice as a registered nurse (R.N.). 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 Road NE, Suite 850 Atlanta, Georgia 30326, 404-975-5000, www.acenursing.org) and approved by the Florida Board of Nursing. Graduates are eligible to apply to write the NCLEX-RN. The part-time track is designed for individuals who work full time. Selection is based on the student's cumulative grade point average (GPA) and successful completion of all prerequisite courses for the nursing program option to which they are applying. See a School of Nursing Information Booklet for more specific details about



admission requirements.

Program admission requirements:

- Non-licensed practical nurse applicants must take NRG 051 before applying to the program.
- Licensed practical nurse (LPN) applicants who have been out of practice for five or more years must take NRG 051 before applying.
- Current status as a Miami Dade degree-seeking student with all required developmental education courses successfully completed
- Cumulative GPA of 2.0 or higher and a grade of C or above for any course required for the Nursing program
- No more than a total of three grades of D, F or W in the Natural Science courses required for the program
- No more than two grades of D, F or W in any individual Natural Science course required for the program

Additional Information: Due to the limited number of students who can be accepted into the School of Nursing associate degree programs, it is important that applicants be properly informed. For information, advisement, application forms and deadline dates, interested students should contact the New Student Center, Medical Campus.

Note: Anatomy & Physiology grades must be earned within 10 years of admission into the associate degree Nursing program. If these are more than 10 years old, please see an Academic advisor.

The Florida Board of Nursing requires disclosure of arrests (except traffic violations) upon application to nursing programs and upon application to write NCLEX-RN. Final determination to become licensed rests with the Board of Nursing.

Opticianry Associate in Science

*Total credits required for
Associate in Science degree: 72*

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 multidisciplinary 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.

Additional Information: Due to the limited number of students who can be accepted into the Opticianry program, it is important that applicants be properly informed. For information, advisement, application forms and deadline dates, interested students should contact the Department of Vision Care at Medical Campus.

*For more information please visit
<http://www.mdc.edu/main/academics/credit.aspx>*

Physical Therapist Assistant Associate in Science

*Total credits required for
Associate in Science degree: 74*

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 and receive an Associate in Science degree.

Additional Information: Due to the limited number of students who can be accepted into the Physical Therapist Assistant program, it is important that applicants be properly informed. For information, advisement, application forms and deadline dates, interested students should contact the Department of Physical Therapist Assistant at Medical Campus.

Physician Assistant Associate in Science

*Total credits required for
Associate in Science degree: 88*

Graduates of the Physician Assistant program are prepared for employment as part of the health care delivery team to work under the direct supervision of a licensed physician. Students are instructed in various aspects of medical care, theory, instrumentation, diagnosis and treatment including prescribing and administration of drugs. There is a concentration of general education and Physician Assistant courses combined with hospital and office practice under the supervision of a licensed physician. Graduates will be eligible to sit for the Commission on Education for the Physician Assistants exam.

Additional Information: Due to the limited number of students who can be accepted into the Physician Assistant program, it is important that applicants be properly informed. For information, advisement, application forms and deadline dates, interested students should contact the Department of Physician Assistant at Medical Campus.

Respiratory Care Associate in Science

*Total credits required for
Associate in Science degree: 76*

The Respiratory Care program prepares the successful graduates for employment in health agencies where they will work with physicians 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 of Respiratory Care. A grade of C or better is required in each course.

Additional Information: Due to the limited number of students that can be accepted into the Respiratory Care program, it is important that applicants be properly informed. For information, advisement, application forms and deadline dates, interested students should contact the Department of Respiratory Care at Medical Campus.

Radiography Associate in Science

*Total credits required for
Associate in Science degree: 77*

The Radiography program is an Associate in 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 at Medical Campus.

*For more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Veterinary Technology Associate in Science

*Total credits required for
Associate in Science degree: 73*

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).

College Credit Certificates

College Credit Certificate programs are subsets of selected Associate in Science/Associate in 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. The college credits granted in these programs will apply toward the related Associate in Science/ Associate in Applied Science degree. The program's title is added to the student's transcript.

STUDENTS IN ALL PROGRAMS SHOULD CHECK THEIR INDIVIDUALIZED DEGREE AUDIT REPORT TO DETERMINE THE SPECIFIC GRADUATION POLICIES IN EFFECT FOR THEIR PROGRAM OF STUDY. 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.

Emergency Medical Technician - Basic College Credit Certificate

Total credits required for the Certificate: 11

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 Florida Department of Health and Rehabilitative Services.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Healthcare Informatics Specialist College Credit Certificate

Total credits required for the College Credit Certificate: 18

Healthcare Informatics Specialists are an important liaison between healthcare providers and data reporting. This program provides learning experiences that enable the student to acquire and simulate the necessary technical competencies to function effectively as a supportive health care provider in the health care informatics profession. To facilitate the clinical portion of the program, students are assigned to clinical facilities within South Florida.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Nuclear Medicine Technology Specialist College Credit Certificate

Total credits required for the College Credit Certificate: 48

Students in this track must have an earned degree (minimum A.S./AAS), and must have completed CHM1033, CHM1033L, MAC1105 and PHY1004 prior to admission into the Nuclear Medicine Technology Specialist College Credit Certificate program.

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 physicians' 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 one-year program qualifies graduates to apply to take 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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Paramedic College Credit Certificate

Total credits required for the College Credit Certificate: 42

The Paramedic College Credit Certificate program prepares students as paramedics who are health care professionals in addition to the responsibilities of an emergency medical technician (EMT). A graduate paramedic can perform certain invasive procedures under the direction of a physician. 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 Committee on Allied Health Education and Accreditation.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Career Technical Education Programs

Career Technical Education (CTE) Programs 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 CTC upon the completion of a program. CTE programs vary in length from 63 to 1,905 contact hours depending on the complexity of the individual program. Students entering programs greater than 450 hours (effective January, 2003) will be tested for basic communication, computation and reading skills. 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, FS). Career Technical Certificate students are eligible for financial aid provided they are enrolled in programs greater than 600 credit hours. Health Science programs are offered at the Medical Campus.

Massage Therapy - Accelerated Option Career Technical Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 9; Language: 10;

Reading: 10

Program Length: 750 contact hours (25 vocational credits)

The total contact hours required for Career Technical Certificate: 750

The two-semester program prepares individuals to provide various techniques of massage of the back, head and feet, including reflexology, rolling and trigger point therapy. There is an emphasis on the therapist/client relationship and records management for clients and payment. Upon successful completion of this program, the graduate is eligible to sit for the Florida Massage Therapy licensure examination. Test of Adult Basic Education (TABE) is required.

Additional Information: MSS0995 will be awarded to individuals who are licensed Physical Therapists or Physical Therapist Assistants. MSS0995 provides for credit for the following exempt courses: HSC0003, MSS0156, MSS0156L, MSS0300, MSS0300L and MSS0803C.

Due to the limited number of students who can be accepted into the Massage Therapy Program, it is important that applicants be properly informed. For information, advisement, application forms, selection criteria and deadline dates, interested students should contact the New Student Center at Medical Campus.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Massage Therapy - Generic Option Career Technical Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 9; Language: 10;

Reading: 10

Program Length: 750 contact hours (25 vocational credits)

The total contact hours required for Career Technical Certificate: 750

The two-semester program prepares individuals to provide various techniques of massage of the back, head and feet, including reflexology, rolling and trigger point therapy. There is an empha-

sis on the therapist/client relationship and records management for clients and payment. Upon successful completion of this program, the graduate is eligible to sit for the Florida Massage Therapy licensure examination. Test of Adult Basic Education (TABE) is required.

Additional Information: Due to the limited number of students who can be accepted into the Massage Therapy Program, it is important that applicants be properly informed. For information, advisement, application forms, selection criteria and deadline dates, interested students should contact the New Student Center, Medical Campus. HSC0003 - Introduction to Health Care or its equivalent will be required for admission into the Massage Therapy Program.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Massage Therapy - Transitional Option Career Technical Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 9; Language: 10;

Reading: 10

Program Length: 750 contact hours (25 vocational credits)

The total contact hours required for Career Technical Certificate: 750

The two-semester program prepares individuals to provide various techniques of massage of the back, head and feet, including reflexology, rolling and trigger point therapy. There is an emphasis on the therapist/client relationship and records management for clients and payment. Upon successful completion of this program, the graduate is eligible to sit for the Florida Massage Therapy licensure examination. Test of Adult Basic Education (TABE) is required.

Additional Information: MSS0996 will be awarded to individuals who are licensed in an Allied Health profession and/or Nursing (associate degree or higher). MSS0996 provides for credit for the following exempt courses: HSC0003, MSS0156 and MSS0156L.

Due to the limited number of students who can be accepted into the Massage Therapy Program, it is important that applicants be properly informed. For information, advisement, application forms, selection criteria and deadline dates, interested students should con-

tact the New Student Center at Medical Campus.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Medical Assisting Career Technical Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 10; Language: 10;

Reading: 10

Program Length: 1,300 contact hours

(43.3 vocational credits)

The total contact hours required for Career Technical Certificate: 1,300

The Medical Assisting program, which is one 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 EKGs 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.

Additional Information: Due to the limited number of students that can be accepted into the Medical Assisting program, it is important that applicants be properly informed. For information, advisement, application forms, selection criteria and deadline dates, interested students should contact the New Student Center at Medical Campus 305-237-4374.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Medical Coder/Biller Career Technical Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 9; Language: 11;

Reading: 11

Program Length: 1,000 contact hours

(33.3 vocational credits)

The total contact hours required for Career Technical Certificate: 1,000

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). Test of Adult Basic Education (TABE) is required.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Medical Record Transcribing Career Technical Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 9; Language: 11;

Reading: 11

Program Length: 1,200 contact hours

(40 vocational credits)

The total contact hours required for Career Technical Certificate: 1,200

The Medical Record Transcribing program prepares individuals to transcribe medical records from recorded dictation. The individual prepares and types reports in appropriate format for use by health care facilities, physicians, insurance companies, legal proceedings and research specialists. Test of Adult Basic Education (TABE) is required.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Pharmacy Technician Career Technical Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 11; Language: 10;

Reading: 10

Program Length: 1,050 contact hours

(35 vocational credits)

The total contact hours required for Career Technical Certificate: 1,050

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.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Phlebotomy Career Technical Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 9; Language: 10;

Reading: 10

Program Length: 165 contact hours

(5.5 vocational credits)

The total contact hours required for Career Technical Certificate: 165

The Phlebotomy 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.

Additional Information: Due to the limited number of students who can be accepted into the Phlebotomy program, it is important that applicants be properly informed. For information, advisement, application forms, selection criteria and deadline dates, interested students should contact the New Student Center at Medical Campus.

For more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Collegewide 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.

School of Architecture and Interior Design

The School of Architecture and Interior Design is a collegewide entity administered at Wolfson Campus. Academic programs are offered throughout the College to provide outstanding educational opportunities and state-of-the-art training to students in the architecture, interior design and construction fields.

The School of Architecture and Interior Design offers the Associate in Arts pathways in architecture, building construction, interior design and landscape architecture. Upon completion, graduates transfer to upper-division programs at state institutions and elsewhere.

For students desiring intensive training leading to employment in a variety of occupations in the above fields, the School of Architecture and Interior Design offers the Associate in Science in architectural design and construction technology, building construction technology and interior design technology. In addition, students can also graduate with a College Credit Certificate as a computer-aided design assistant and as a computer-aided design operator.

The disciplines of architecture and interior design are very similar in relation to the type of learning that students must acquire in the two years of study at the College. There are also widely diverging outcomes regarding the different areas of specialization in advanced courses. These disciplines are task-driven and task-intensive. Consequently, assessments are done in every studio class on a continuing basis, project by project, and at predetermined stages during the semester.

The core of the Architecture and Interior Design pathways is comprised of the Design Studio courses. Design problems are given to students with a specific set of parameters and time frame. A series of progress benchmarks are established and the students are assessed as they complete those steps. A studio set-up allows for individual attention to each student and constant feedback from the instructor and other students as they work individually and in teams.

Other important areas of study include courses in graphic expression and representation, computer-aided technical drafting, history and theory, technical courses in construction materials, structures and environmental technology.

Building construction students learn to interpret construction working drawings to derive practical information necessary to initiate a construction job. Courses in cost estimating, financial and legal aspects, and building codes are also included.

The disciplines of architecture, construction and interior design have a long-established history. Many principles basic to these disciplines are as applicable today as they were in the past. Learning these principles and assimilating current professional practices demand discipline and hard work from the students.

In order to transfer to upper-division programs or to seek employment, students must produce a portfolio of work. This portfolio is made up of work from all four levels of design courses and some graphic courses as well. This way, the portfolio demonstrates not only the best work produced by the student, but also the progress made over two years, which shows the intellectual and creative development of the students. A specific portfolio class is offered, where

students utilize cutting-edge digital photography and computer graphics to produce outstanding portfolios.

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 20 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 Aviation

The mission statement of MDC Eig-Watson School of Aviation is to provide the greatest opportunities for our students to achieve success by meeting the professional and educational needs of the aviation industry.

The MDC Eig-Watson School of Aviation provides students with the education and skills required for a successful aviation career. Associate in Science degrees include Aviation Administration, Aviation Maintenance Management and Professional Pilot Technology. Related College Credit Certificates include Air Cargo Management, Airline/Aviation Management, Airport Management, and Passenger Service Agent; an Advance Technical Certificate (Certified Flight Instructor) is also offered. Additionally the School offers an aircraft dispatcher course and flight simulation training.

The Eig-Watson School of Aviation uses various training techniques and simulation equipment to provide students with a hands-on approach to their education. The School has classrooms at Miami International Airport and Kendall-Tamiami Executive Airport, where students are immersed in the world of aviation. Classes are also offered at Homestead Campus where the state-of-the-art air traffic control simulation lab is provided. The following flight training courses are offered through contracted flight providers:

- ATF 1100 Private Pilot Flight (3 credits)
- ATF 2210 Commercial Pilot Flight (3 credits)
- ATF 2305 Instruments Pilot Flight (3 credits)
- ATF 2400 Multi-Engine Pilot Flight (1 credit)
- ATF 2501 Flight Instructor-Flight Training (3 credits)

School of Business

The School of Business offers a full range of academic programs to prepare students for careers in business or to start a successful business of their own, including the Bachelor of Applied Science with a major in Supervision and Management and the Associate in Science degree in Business

Administration. In addition to the Associate in Arts pathways and Associate in Science degrees, the School offers College Credit Certificates that are designed for immediate entry into the workforce. Course offerings are available in a wide number of disciplines including accounting, business administration, economics, entrepreneurship, management, marketing, international business and financial services. The School of Business has a long tradition of preparing students to meet the needs of our 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 cover corporate needs. School of Business courses are offered at the Hialeah, Homestead, InterAmerican, Kendall, North, Wolfson campuses and MDC-West, as well as through the Virtual College.

School of Continuing Education and Professional Development

The School of Continuing Education and Professional Development's mission is to make the College more accessible to the public and to meet community needs not served by traditional college programs. Through the Continuing Education departments located on each campus, 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 individuals 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, preparing oral presentations, building contractor license exam preparation, as well as several hundred work-related 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 reduction 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, Teacher Education preparation, alternative pathways to certification and teacher recertification.

Early Childhood Education:

Students may earn College Credit Certificates with an Infant/Toddler Specialization or Preschool Specialization that may lead to the National Child Development Associate credential. 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 prepare for the Florida Child Care Professional Certificate (FCCPC). Students may earn an Associate in Science degree in early childhood education. The A.S. degree will prepare students for immediate employment as early childhood professionals or paraprofessionals in both the public school system or private school sector.

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 and recertification requirements. Students who complete the A.A. with requisite courses needed for a baccalaureate degree in teaching may transfer to state university colleges of education with junior-level standing. Most private institutions will grant A.A. holders the same status.

The School of Education offers four-year baccalaureate degrees in Early Childhood Education, Education in Exceptional Student Education and Secondary Education. The baccalaureate degree may be earned in the following specialties:

- Early Childhood Education
- Exceptional Student Education (Kindergarten - 12th grade)
- Mathematics Education (Grades 6-12)
- Biology Education (Grades 6-12)
- Chemistry Education (Grades 6-12)
- Earth/Space Science Education (Grades 6-12)
- Physics Education (Grades 6-12).

The baccalaureate programs in education are designed to prepare future teachers to enter the teaching profession immediately after graduation. Upon program completion students meet all Florida Department of Education requirements including the successful completion of the certification exams, an e-Portfolio of artifacts 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.

School of Engineering Technology

The School of Engineering and Technology provides the dynamic knowledge, skill, hands-on training and industry connection to turn your dreams and imagination into solutions for success. Technology touches every area of our lives and is one of the most in-demand industries for the 21st century. The Miami Dade College curriculum has been strategically designed to enhance your potential for success. With more than 30 degrees, our students have access to a wide variety of career

paths and opportunities from nuclear engineering to information technology management.

The school offers baccalaureate, Associate in Arts pathways and Associate in Science degrees, as well as College Credit and Career Technical Education Certificates. Among the programs offered are: Air Conditioning, Building Construction Management, Computer Programming and Database Development, Electronics/Computer Repair, Engineering, Internet Technologies, Network Technologies, Telecommunications and others.

The School of Engineering and Technology offers courses at the Hialeah, Homestead, InterAmerican, Kendall, North, Wolfson campuses and MDC-West. The School is headquartered in The Emerging Technologies Center of the Americas (ETCOTA) on the Wolfson Campus. This dynamic state-of-the-art facility houses 19 high-tech classrooms and labs, a 120-seat auditorium and offices for faculty and staff. ETCOTA has more than 400 high-end computers and wireless Internet access throughout the facility. The latest in audio-visual equipment is installed in each classroom for maximum connectivity to the Internet. The facility provides every student with the best resources in technology education.

In addition, comparable equipment and facilities are available at the other campuses to permit students to complete courses at their convenience. The School's major partners in various technologies include: Microsoft, Oracle, Dell, IBM and FPL. The School is a Cisco Regional Networking Academy offering CCNA classes on most campuses, and also provides instruction using official Microsoft curriculum. Furthermore, articulation agreements with prestigious four-year universities permit students to transfer credits for baccalaureate degrees.

School of Entertainment & Design Technology

The mission of the School of Entertainment & Design Technology (SEDТ) is to effectively inspire and train students to lead the next generation

of high-tech media producers. As creative and successful alumni, graduates will provide the entertainment industry with a highly skilled workforce. Bringing dreams to life through high-tech digital training, the School of Entertainment & Design Technology emphasizes "real world" instruction in the cutting-edge technologies driving the film, television and radio, graphic and web design, photography, computer animation and music business industries. As workforce development programs, SEDТ is focused on providing those skills and experiences necessary for students to succeed in gaining employment in the highly competitive entertainment and design industries. The School of Entertainment & Design Technology is a cluster of design and media production programs including:

- B.A.S. with a major in Film, Television & Digital Production
- A.S. in Film Production Technology
- A.S. in Radio & Television Broadcast Programming
- A.S. in Music Business
- A.S. in Graphic Design Technology
- A.S. in Web Design Technology
- A.S. in Photographic Design Technology
- A.A. Pathway to a Major in Computer Art Animation

All of the programs offered consist of general education courses, the program core requirements and electives that prepare students for immediate employment in the field.

Students who earn an A.S. in Film Production Technology or in Radio & Television Broadcast Programming can transition into the B.A.S. degree program and immediately enroll in the upper-division coursework. The baccalaureate degree program trains students for employment and/or for continuing their education towards earning a master's degree or higher.

Miami Dade College created programs of study as the use of new production technologies evolved. The Television & Radio, and Music Business programs were created in the early 1970s, followed by the Film Production program in the early 1990s. Most of the courses taught are revised in response to increased reliance on digital technologies and an expanding South Florida

entertainment industry.

The recent renovations of the production facilities and labs at the College's North, Kendall, Wolfson and Homestead campuses include a state-of-the-art Sound Recording Studio equipped with the SSL mixing console, a Motion Picture Screening Room with 5.1 Dolby® Surround Sound, new lecture and performance halls, a sound and lighting stage, two High Definition (HD) television studios, post-production editing suites and a 24/7 College cable network, MDC-TV with a television viewing audience of over 500,000 households throughout the County - all designed to offer students industry-specific learning environments.

School of Justice

The School of Justice, 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 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:



- A.A. pathway to Criminal Justice Administration
- A.S. in Criminal Justice Technology - Generic
- A.S. in Criminal Justice Technology - Law Enforcement
- A.S. in Criminal Justice Technology - Corrections
- 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 A.S. degrees in criminal justice technology are for those students who wish to continue their education following completion of one of the basic training academies.

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 ten tracks. Qualified students choosing to enter either the Basic Law Enforcement Academy or Basic Corrections Academy spend the last semester of their four-year program in one of our basic recruit training programs. Students completing either academy track will find that in four years they have earned a BAS and are eligible to sit for the State Officer Certification Exam in either law enforcement or corrections.

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, public service aide and private sector security officers.

Basic Recruit Training: The School of Justice offers Basic Recruit Training Programs (BRTP) in the areas of law enforcement, corrections and public service aide. Students who successful-

ly complete one of the BRTP in Law Enforcement or Corrections, and who pass the State Officer Certification Exam, are eligible to receive up to 34 credits toward an A.S. degree in criminal justice technology. Credit conversion occurs in two separate phases.

Private Sector Security Training: Private sector training is provided to those who seek D (Security Officer), G (Statewide Firearm) and E (Recovery Agent) class licensing.

School of Nursing

The Benjamin León School of Nursing is accredited by the Accreditation Commission for Education in Nursing (ACEN) (3343 Peachtree Road NE, Suite 850, Atlanta, Georgia 30326, 404-975-5000, info@acenursing.org) and offers 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 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.

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.

Apprenticeship Programs

The College provides apprenticeship training programs in partnership with state-registered and approved Apprenticeship Sponsor Agencies. These programs provide classroom instruction and on-the-job training for employees of Apprenticeship Sponsor Agency companies. Currently approved apprenticeship programs prepare successful graduates to work as journeymen in the areas of electrical, fire sprinkler, heating, ventilation, air conditioning, plumbing and sheet metal.

Center for Economic Education

(Wolfson 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.

Center of Electronics Emphasis and Electronics Specialization

(North Campus)

The Center of Electronics Emphasis program is a partnership program developed by the Florida High Technology and Industry Council, the Florida Legislature, the Division of Vocational, Adult, and Community Education, the Florida College System and the private electronics industry. The purpose of this program is to promote a climate of excellence in education, assure a supply of quality teachers, strengthen educational partnerships and prepare students for competitive careers through state-of-the-art training using modern industry guidelines.

The primary objective of the Center of Electronic Emphasis is to ensure that all centers with this title designation have the seven CORE classes in basic electronics, thus ensuring consistency of information transfer. The Center of Electronics Specialization has the mandate of instruction in the areas of micro-computer service and maintenance.

Center of Excellence in High Technology/ Electronics

(North Campus)

The Center of Excellence in High Technology/Electronics at the North Campus is an interdisciplinary program that presently incorporates the departments of engineering and architecture. The Center has programs in computers and computer-assisted drafting. Courses are run in different formats depending on need.

Center for Financial Training

(Wolfson Campus)

The South Florida Center for Financial Training (SFCFT) 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, SFCFT benefits more than 3,500 financial services professionals locally and is one of 30 centers located throughout the United States and Puerto Rico.

SFCFT is a unique source for commercial banking and financial industry training and education. SFCFT is a non-profit educational organization that conducts college credit courses (live classes, guided self-study and online), seminars, computer workshops and customized and contract training.

Students can earn SFCFT and/or Academy of International Banking (AIB) diplomas and certificates that are recognized throughout the industry and

accepted as college credit. Students can also earn Banking College Credit Certificates. SFCFT has established an academic partnership with Miami Dade College, enabling SFCFT students to achieve degree status while completing their financial services studies. SFCFT courses are offered at all MDC campuses, community schools and at certain financial institutions. All courses are open to the public however, special fees are charged by SFCFT for certification and materials. The fee structure varies depending on whether the student is a member or nonmember of SFCFT. The fee is charged in addition to MDC tuition and is paid to SFCFT.

Computer Institute

The Computer Institute (CI) meets the computer-related training needs of business, labor and industry. Courses are offered both on-campus and at on-site training locations. The CI offers a comprehensive program that includes classes in most of the commonly used software packages. Classes are available to all age groups, including senior citizens. During the summer, a comprehensive Kids/Teen Program is offered. A limited schedule of classes is available in Spanish. The CI offers state-of-the-art computers and software, small class sizes in a workshop format (a hands-on environment), a competitive fee structure and quality instruction from industry professionals.

Confucius Institute

Miami Dade College (MDC) has long been committed to strengthening educational ties with China. MDC, in partnership with Xuzhou Normal University (XNU), was selected for the honor of hosting the only Confucius Institute in South Florida and has been offering classes since 2010.

MDC's Confucius Institute is committed to building bridges of understanding through furthering knowledge of the Mandarin language and the Chinese culture. The Institute is sponsored by the Chinese Language Council, a non-governmental affiliate of the Chinese Ministry of Education.

For further information, please

contact the Director of the Confucius Institute.

Continuing Education

The School of Continuing Education and Professional Development is committed to the philosophy that learning is a lifetime 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 con-

tinuing 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 resource cen-

ter 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.

EEI Programs for Faculty and Staff

GREEN 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 greening the 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 and St. Thomas University in Miami in offering courses in Earth Literacy.



EEI Programs for Students

EARTH LITERACY COLLOQUIUM AND EARTH FELLOWSHIP PROGRAM

Earth Ethics Institute encourages students to develop an understanding of Earth Literacy. The IDS 1150 Earth Literacy & Sustainability 1 is an interdisciplinary credit course with an environmental ethics and cosmological overview. The colloquium meets weekly and includes discussions of ecological issues, current films on pertinent contemporary issues, vegan food preparation, an introduction to organic gardening and community-supported agriculture, and immersion field trips.

LAW DEGREE WITH AN ENVIRONMENTAL SPECIALTY

EEI and MDC have a special relationship with St. Thomas University (STU) to offer students an opportunity to earn a law degree with an environmental specialty in six years instead of seven. MDC students participating in this special program earn an Associate in Arts at MDC (two years), transfer to STU in the third year and take courses directly relevant to the practice of environmental law and administration (one year). The curriculum's fourth year is the required

first-year program of the STU School of Law as well as the fourth year of studies resulting in a B.A. degree in environmental justice. For students accepted into the law school, the curriculum of the fifth and sixth years addresses legal areas of direct relevance to the practice of environmental law and prepares students for the Florida Bar Examination (three years).

EARTH ETHICS INSTITUTE CHALLENGE GRANTS

Every year, Earth Ethics Institute sponsors several discipline-specific challenge grants for MDC students and awards certificates and cash prizes for innovative entries. Participants are asked to explore sustainable and regenerative ecological themes related to the specific disciplines. Every year, the Earth Ethics Institute offers the Visions of Nature in South Florida Photography Challenge. Challenge grants are often offered to students studying architecture and interior design as well.

EEI Programs for the South Florida Community

The Earth Ethics Institute is a participating member in the Environmental Education Providers of Miami-Dade County and partners with diverse nation-

al and local organizations to offer conferences and speakers on environmental issues of interest to our community. In addition, EEI sponsors organic gardens in area schools, parks and neighborhoods. Information about the Institute can be found at the Earth Ethics Institute Web site www.earthethicsinstitute.org.

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 International, 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 International

Held each year in November for more than 25 years, Miami Book Fair International is the largest and finest event of its kind in the U.S. In addition to readings by more than 300 authors from all over the world and the sale of thousands of books in many languages, the Fair offers book-centered fun for children, the chance to explore the culture of many nations at the International Village, panel discussions and creative writing classes in English and Spanish.

Teatro Prometeo

The close relationship between theater and literature prompted the Center to embrace Prometeo, a Spanish-language theater program founded more than 35 years ago at Miami Dade College's Wolfson Campus with the mission of preserving the Spanish language and Hispanic culture through the theater. Courses and workshops in acting, voice and speech, movement, acting for the camera, playwriting, singing and stagecraft are offered throughout the year. Prometeo also offers the two-year Professional Training Certificate in Theatre Arts, as well as classes for children and teens.

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. More than 150 decedents are embalmed and cosmetically prepared in the campus laboratories each academic year. 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 Associate in Science degree in Funeral Service Education is accredited by the American Board of Funeral Service Education Inc. (ABFSE), 3414 Ashland Ave., Suite G, St. Joseph, MO 64506 (phone: 816-233-3747; www.abfse.org). The ABFSE requires that all students take the National Board Exam (administered by the International Conference of Funeral Service Examining Boards) prior to graduation. Miami Dade College requires that students pass both sections (arts and sciences) of the National Board Exam with a grade of 75 or higher in order to graduate from the Funeral Service Education program. The annual passage rate of first-time takers 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. For further information students may contact the Funeral Service Education program at 305-237-1244 or via email at wpowell@mdc.edu. 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 college-

wide community of student and faculty scholars who collaborate in an intellectually stimulating, enriching, challenging and supportive environment. Housed at Wolfson, North, Kendall and InterAmerican campuses, The Honors College provides an academically rich curriculum with special scholarship, and social and service opportunities. The Honors College encourages critical thinking and intellectual curiosity in an array of programs and disciplines. The InterAmerican 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 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.

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, an impressive speakers series, discipline-specific honors seminars and student forums. Components of the program include:

1. Merit scholarships for superior students, including the Honors College Fellows award for students who meet The Honors College eligibility criteria;
2. Opportunities to attend an array of cultural events featuring the performing and visual arts;
3. 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;
4. Transfer admission and scholarship opportunities by upper-division colleges and universities awarded to graduates of The Honors College;
5. Membership in campus chapters of Phi Theta Kappa International Honor Society for students with a GPA of 3.5 or higher;

6. Opportunities to participate in international study experiences and internships abroad;
7. 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;
8. 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. Requirement of 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. 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.

Independent Studies

(Kendall Campus)

The Independent Studies Program offers an interdisciplinary academic program including more than 40 college credit courses in a broad array of disciplines. The program includes all general education core courses and a wide variety of distribution and elective classes. This program is particularly well-suited to students wanting flexible schedules, as it requires only a minimal number of campus visits. Courses offered in the Independent Studies Program are ideal for motivated students who want to choose where and when to study; who enjoy working at their own pace; who have good time management skills; who are unable to attend classes on a routine basis; and who are committed to their academic goals. Faculty dedicated to student success are available day, evening and weekend hours to provide individualized instruction and to extend Miami Dade College's resources beyond the campus. Students respond positively to the flexible, convenient and supportive environment.

Courses are available in the natural

sciences, English composition and literature, humanities, history, social science, sociology and psychology. All courses offered mirror traditional classroom style courses in that they are instructor-led, feature specific start and end dates, require textbooks and provide the same levels of academic or professional credit. The program expands course offerings every term; students should consult the current term's class listing for the present schedule. Each course in Independent Studies establishes its own curricular procedures and suggested deadlines for testing and work submittal. In addition, all courses in this academic program include varied learning activities, timely feedback and the opportunity for accelerated completion.

For more information call 305-237-2337.

MEED Program

The MEED Program (Model for Enhanced Employment Development) has served students with disabilities in Miami-Dade County with distinction for more than 20 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 three 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., (2) employment development; e.g., working with business and industry and agencies throughout the County to expand inclusive employment opportunities, and (3) The MEED Academy; which features the MEED Digital Tech Studio and a Professional Studies Institute (featuring workshops and seminars in the study of employability and professional qualities and skills). Students are issued digital equipment and software that enhances accessible learning and work experiences as they participate in internships that provide application of technology and polish professional skills. The length of the Academy Program depends upon the

needs of the individual student.

To learn more about the MEED Program, students are invited to call 305-237-3997.

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 the 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 noncredit 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, students should see "Military Science" in the Course Description section. For more information please visit the Web at www.mdc.edu/armyrotc.

Servicemembers' Opportunity College

In 1972, a nationwide program sponsored by the U.S. Department of Defense and the American Association of Community Colleges designated MDC a servicemembers' opportunity college (SOC). The designation was awarded in recognition of the College's commitment to providing programs and special services to meet the unique educational needs of active-duty service personnel. The following services are offered:

As a SOC consortium institution, academic residency requirements for graduation purposes is limited to no more

than 25 percent of the undergraduate degree program.

For further information concerning SOC services please visit the web at <http://www.soc.aasu.org>.

In addition, service personnel and their dependents may meet the College's graduation requirements by completing six credits of the last 30 credits applied to a degree at MDC.

Virtual College

The Virtual College, the College's Distance Education program, offers students an alternative way to attend MDC through its quality Web-based courses. Students who may have schedule conflicts, personal situations that prevent campus-based attendance, or who are too far away to commute, will find that taking courses in the Virtual College is an excellent solution and opportunity. Our mission at the Virtual College is to ensure that students who enroll in our courses receive a quality online education that equals that of a traditional campus-based experience.

To be able to complete courses successfully in the Virtual College, students need access to a computer and the Internet and must have basic computer, Internet and word processing skills. Students are required to complete the Virtual College Student Orientation successfully. This orientation helps students evaluate whether they possess the knowledge and skills necessary for success in online courses; whether their computer system meets minimum hardware and software standards; and also explains requirements related to online courses, such as communications, participation, testing.

Each semester, the Virtual College's course offerings expand as more courses are developed, and these Web-based courses contain many features that make learning enjoyable and effective. The Virtual College's learning community consists of students who are motivated and disciplined in their pursuit of knowledge, and faculty who are eager to teach and guide online learning. The interaction and sharing of knowledge in the online classroom promotes intellectual and professional growth. Frequent online communication is a major part of every Virtual College course. There are

options for discussion forums, online chat sessions and email; students can easily communicate with both their teachers and their virtual classmates. In each course, students find a syllabus, a class calendar, course content, activities and tests. The content is enriched with multimedia, glossary, self-tests, images, linked web resources, interactive exercises and more. Participation in the course is required from the first day of class.

To learn more about online education and to view course offerings, students should visit the Virtual College's website at virtual.mdc.edu. Before enrolling in a Virtual College course, a student may view the syllabus, contact the teacher with questions concerning the course, and learn what textbook and other instructional materials are required. MDC offers registration and other services online for Virtual College students.

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.

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 a complete health/fitness assessment, including sub-maximal cardiovascular, blood pressure measurement, body composition, muscular strength and flexibility. Each center also has a variety of cardiovascular and strength training equipment as well as an array of free-weights.

Study Abroad Programs

Miami Dade College is one of the leading institutions of the College Consortium for International Studies (CCIS). As a CCIS sponsoring member institution, the College is responsible for semester and summer programs in France and Costa Rica. A cooperative consortium arrangement affords reciprocal access for MDC students to take college credit programs in additional countries sponsored by other member institutions. The CCIS is a nationwide partnership of more than 160 membership colleges and universities, including two- and four-year, public and private. This partnership offers American undergraduates a choice of more than 70 study-abroad programs in more than 30 countries. CCIS semester programs are available in the following countries, many of which also offer summer programs:

1. Argentina (Buenos Aires)
2. Australia
3. Bulgaria
4. Canada
5. China (Nanjing and Shanghai)
6. Costa Rica (Santa Ana and San José)
7. Czech Republic (Prague)
8. Denmark
9. Dominican Republic
10. Ecuador
11. England (London and Lancashire)
12. France (Aix-en-Provence, Nice, Annecy, Chambéry, Angers, Paris)
13. Germany (Berlin, Heidelberg)
14. Ghana
15. Greece
16. India
17. Ireland (Maynooth, Limerick, Galway)
18. Italy
19. Japan
20. Mexico
21. Morocco
22. New Zealand
23. Portugal
24. Russia
25. Scotland
26. Spain
27. Switzerland

Miami Dade College also offers faculty-led short-term study abroad programs, such as European Architecture, Economic Effects of Scientific Discoveries, Medical Immersion program in the Dominican

Republic, and Study Abroad in Seville. Participation is not automatic. Students must apply through the MDC Office of International Education located at the Wolfson Campus. 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 (Campus Code 285). Most 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 program are detailed during the application process. For more information about the study abroad programs, please visit www.mdc.edu/mdcglobal.

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) is a term used to describe learning gained outside a traditional academic environment. Put another way, it is learning and knowledge your students acquire while living their lives: working, participating in employer training programs, serving in the military, studying independently, volunteering or doing community service, and studying open source course-

ware. 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.

Dual Enrollment and Early Admission

(See Special Admissions Categories, page 16)

The Dual Enrollment program allows high school students (or home education students) to earn simultaneously college credit and credit toward a high school diploma. 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 passing the appropriate sections of the college placement test 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 regular admission, advisement and registration procedures and receive permission from their high school.

Alternative Ways of Earning Credit Through Standardized Examinations

- Advanced Placement (AP)
- 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)
- Excelsior College Examinations (formerly Regents or ACTPEP)
- International Baccalaureate (IB)

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. 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 Accelerated Credit Options web page from Florida Virtual Campus website (www.flvc.org) and click on "Credit by Exam Scores and Credit Awarded". For additional information please visit the Testing Criteria Credit-by-Exam website, accessed from MDC's Homepage (www.mdc.edu) by clicking on "Resources," then "Testing Information".

Institutional (Departmental) Credit-by-Examination

Students who have been admitted to the College may receive credit for courses through departmental exami-

nations. Applications for this type of credit are available from the Registrar's Office 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.

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. Box 6604, 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 diverse high-speed gigabit fiber network backbone supporting voice, video and data. The network currently has over 31,000 ports, and provides 800 megabits per second bandwidth connection to the Internet from diverse sites using multiple service providers. Wireless connectivity for mobile computing is available in campus libraries, conference centers and other instructional and meeting locations. Classroom and desktop access to video-on-demand is available in a growing number of locations across the College.

The College also offers a wide variety of Web-based services, including student portal access to admissions, orientation, registration, advising, financial aid, transcript requests, term grades and credit card payments. Furthermore, the services offer up-to-the-minute course listings and academic program information. Classes are available in online and distributed modes to provide students with a variety of ways to complete their course of study. Extensive computing facilities at each College location provide support for collegewide technology-enabled curriculums.

The College's data center is located in Jack Kassewitz Hall at Kendall Campus. It hosts hundreds of virtualized computer servers and over 500 terabytes of storage. The data center also hosts the ODYSSEY Enterprise Software Suite that supports the administrative side of student services in admission, registration and advising, as well as the business services of finance, payroll, purchasing, personnel and facilities and the Angel Learning Management System that supports online distance learning and the Virtual College.

Institutional Advancement

(District Office)

The office of Institutional Advancement has responsibility in three major divisions in carrying out its mission as the development organization for Miami Dade College: District Development Office, the Office of Alumni Relations and the Miami Dade College Foundation Inc.

Resource Development Department

The Department of Resource Development identifies external sources

of funding to support the programs and priorities of the College. The department works with College faculty and staff 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 services, special projects, student services, curriculum development, professional staff development, the construction of new facilities, exchange programs, research, new equipment and student scholarships. The Department of Resource Development also encourages public-private partnerships and collaboration with other educational institutions. In



addition to the pre-award portion of the grants process at the College, the department is also in charge of the College Processing Number (CPN) System which allows MDC to track proposals submitted to external sources.

Miami Dade College Office of Alumni Relations

The Alumni Association's mission is to assist current and past students of MDC through mentorship programs, job networking, fundraising and other means to create a smooth transition from student to member of the workforce. The association maintains the official website www.SuccessfulAlumni.com. This site offers a variety of services to all alumni and attendees of the College. More than 2 million people have attended Miami Dade College and more than 190,000 have earned degrees.

Members of the Miami Dade College Alumni Association are entitled to numerous benefits, including the use of the College libraries and discounts at participating vendors. Furthermore, members are invited to the various College-sponsored functions, including cultural arts events, the Miami Book Fair International and the Miami International Film Festival. Membership is free: Sign up at www.SuccessfulAlumni.com to receive these benefits, and to be considered for the alumni advertising campaign.

Miami Dade College Foundation Inc.

The Miami Dade College Foundation Inc. 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 MDC College president, a rotating MDC campus president and a representative of the MDC Board of Trustees, the Foundation is vital to the College's ability to provide high-quality, accessible and affordable educational services to our community.

The Foundation ensures the mission of Miami Dade College is accomplished by promoting interest in the College through three primary objectives:

- Continue to build a permanent endowment to support Miami Dade College;
- Maintain an open-door policy ensuring that no student is denied access to an education for financial reasons;
- Develop broad-based constituent support at the local, state, national and international level to enhance and continue strengthening Miami Dade College as the largest college in the nation.

At a time when legislative 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 facilitates a means through which indi-

viduals, private and family foundations, civic organizations and corporations can work with the College to serve the community. Gifts from these sources have established 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, including MDC faculty, staff and administrators have contributed to the growth of the Foundation's endowment, which is approximately \$80 million. The endowment is comprised of more than 700 scholarship and program support donor accounts for 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 recognize excellence in teaching. Inaugurated in 1992, the Endowed Teaching Chair awards each recipient \$22,500 over a three-year period, 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 in order to benefit their 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, have fulfilled 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. The Endowed Teaching Chair program began in 1992 and has awarded more than 238 awards. 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.



Call us Essential ... Call us the College

Academic Offerings

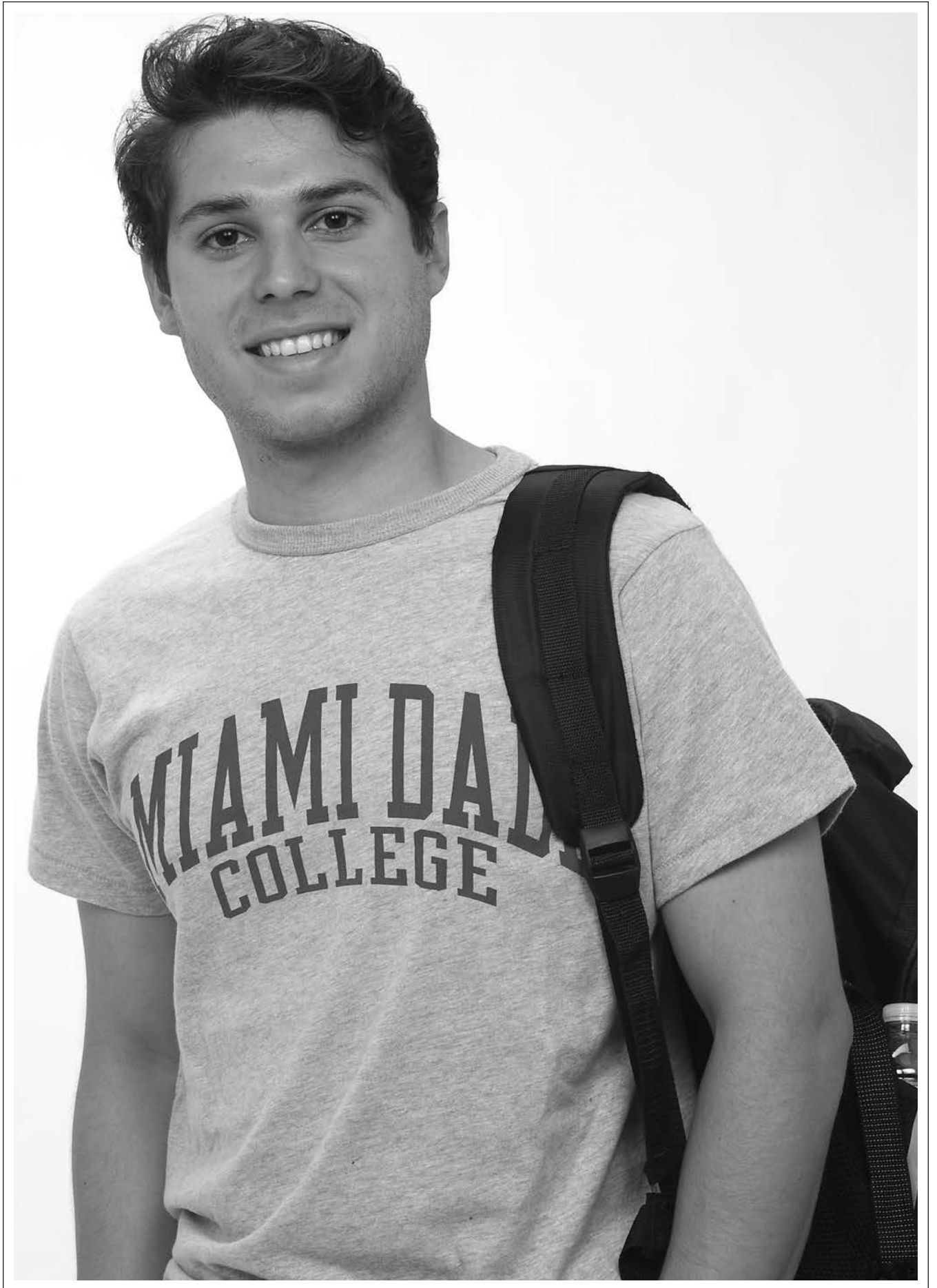
COURSE INFORMATION

<i>Florida's Statewide Course Numbering System</i>	<i>119</i>
<i>Course Offerings and Cross References</i>	<i>121</i>

COURSE DESCRIPTIONS

<i>College Credit Courses</i>	<i>126</i>
<i>Vocational Credit Courses</i>	<i>226</i>





Course Information

Florida's Statewide Course Numbering System

Courses in this catalog are identified by prefixes and numbers that were assigned by Florida's Statewide Course Numbering System (SCNS). This numbering system is used by all public postsecondary institutions in Florida and 25 participating nonpublic institutions. The major purpose of this system is to facilitate the transfer of courses between participating institutions. Students and administrators can use the online SCNS to obtain course descriptions and specific information about course transfer between participating Florida institutions. This information is at the SCNS website at <http://scns.fldoe.org>.

Each participating institution controls the title, credit and content of its own courses and recommends the first digit of the course number to indicate the level at which students normally take the course. Course prefixes and the last three digits of the course numbers are assigned by members of faculty discipline committees appointed for that purpose by the Florida Department of Education in Tallahassee. Individuals nominated to serve on these committees are selected to maintain a representative balance as to type of institution and discipline field or specialization.

The course prefix and each digit in the course number have a meaning in the SCNS. The listing of prefixes and associated courses is referred to as the "SCNS taxonomy." Descriptions of the content of courses are referred to as "statewide course profiles."

EXAMPLE OF COURSE IDENTIFIER

Prefix	Level Code (first digit)	Century Digit (second digit)	Decade Digit (third digit)	Unit Digit (fourth digit)	Lab Code
ENC	1	1	0	1	
English Composition	Lower (Freshman) Level at this institution	Freshman Composition	Freshman Composition Skills	Freshman Composition Skills I	No laboratory component in this course

General Rule for Course Equivalencies

Equivalent courses at different institutions are identified by the same prefixes and same last three digits of the course number and are guaranteed to be transferable between participating institutions that offer the course, with a few exceptions, as listed below in *Exception to the General Rule for Equivalency*.

For example, a freshman composition skills course is offered by 56 different postsecondary institutions. Each institution uses "ENC_101" to identify its freshman composition skills course. The level code is the first digit and represents the year in which students normally take the course at a specific institution. In the SCNS taxonomy, "ENC" means "English Composition," the century digit "1" represents "Freshman Composition," the decade digit "0" represents "Freshman Composition Skills," and the unit digit "1" represents "Freshman Composition Skills I."

In the sciences and certain other areas, a "C" or "L" after the course num-

ber is known as a lab indicator. The "C" represents a combined lecture and laboratory course that meets in the same place at the same time. The "L" represents a laboratory course or the laboratory part of a course that has the same prefix

and course number but meets at a different time or place.

Transfer of any successfully completed course from one participating institution to another is guaranteed in cases where the course to be transferred is equivalent to one offered by the receiving institution. Equivalencies are established by the same prefix and last three digits and comparable faculty credentials at both institutions. For example, ENC 1101 is offered at a community college. The same course is offered at a state university as ENC 2101. A student who has successfully completed ENC 1101 at the community college is guaranteed to



receive transfer credit for ENC 2101 at the state university if the student transfers. The student cannot be required to take ENC 2101 again since ENC 1101 is equivalent to ENC 2101. Transfer credit must be awarded for successfully completed equivalent courses and used by the receiving institution to determine satisfaction of requirements by transfer students on the same basis as credit awarded to the native students. It is the prerogative of the receiving institution, however, to offer transfer credit for courses successfully completed that have not been designated as equivalent. **NOTE:** Credit generated at institutions on the quarter-term system may not transfer the equivalent number of credits to institutions on the semester-term system. For example, 4.0 quarter hours often transfers as 2.67 semester hours.

The Course Prefix

The course prefix is a three-letter designator for a major division of an academic discipline, subject matter area or subcategory of knowledge. The prefix is not intended to identify the department in which a course is offered. Rather, the content of a course determines the assigned prefix to identify the course.

Authority for Acceptance of Equivalent Courses

Section 1007.24(7), Florida Statutes, states: Any student who transfers among postsecondary institutions that are fully accredited by a regional or national accrediting agency recognized by the

United States Department of Education and that participate in the statewide course numbering system shall be awarded credit by the receiving institution for courses satisfactorily completed by the student at the previous institutions. Credit shall be awarded if the courses are judged by the appropriate statewide course numbering system faculty committees representing school districts, public postsecondary educational institutions and participating nonpublic postsecondary educational institutions to be academically equivalent to courses offered at the receiving institution, including equivalency of faculty credentials, regardless of the public or nonpublic control of the previous institution. The Department of Education shall ensure that credits to be accepted by a receiving institution are generated in courses for which the faculty possess credentials that are comparable to those required by the accrediting association of the receiving institution. The award of credit may be limited to courses that are entered in the statewide course numbering system. Credits awarded pursuant to this subsection shall satisfy institutional requirements on the same basis as credits awarded to native students.

Exceptions to the General Rule for Equivalency

Since the initial implementation of the SCNS, specific disciplines or types of courses have been excepted from the guarantee of transfer for equivalent courses. These include courses that

must be evaluated individually or courses in which the student must be evaluated for mastery of skill and technique. The following courses are exceptions to the general rule for course equivalencies and may not transfer. Transferability is at the discretion of the receiving institution.

- A. Courses not offered by the receiving institution
- B. For courses at nonregionally accredited institutions, courses offered prior to the established transfer date of the course in question
- C. Courses in the 900-999 series are not automatically transferable, and must be evaluated individually. These include such courses as Special Topics, Internships, Apprenticeships, Practica, Study Abroad, Thesis and Dissertations
- D. Developmental education courses (credit and vocational credit)
- E. Graduate courses
- F. Internships, apprenticeships, practica, clinical experiences and study abroad courses with numbers other than those ranging from 900-999
- G. Applied courses in the performing arts (Art, Dance, Interior Design, Music, and Theatre) and skills courses in Criminal Justice (academy certificate courses) are not guaranteed as transferable. These courses need evidence of achievement (e.g., portfolio, audition, interview, etc.).

Courses at Nonregionally Accredited Institutions

The SCNS makes available on its home page (<http://scns.fldoe.org>) a report titled "Courses at Nonregionally Accredited Institutions" that contains a comprehensive listing of all nonpublic institution courses in the SCNS inventory, as well as each course's transfer level and transfer effective date. This report is updated monthly.

Questions about the SCNS and appeals regarding course credit transfer decisions should be directed to the MDC collegewide Registrar or the Florida Department of Education, Office of Articulation, 1401 Turlington Building, Tallahassee, Florida 32399-0400. Special reports and technical information may be requested by calling the SCNS office at (850) 245-0427 or at <http://scns.fldoe.org>.



Miami Dade College Course Offerings and Cross References

Miami Dade College course offerings and their descriptions are grouped under the applicable statewide discipline, in alphabetical order according to discipline title, not under the department or division of the college through which they are offered. For instance: FIN 2100, Personal Finance, is listed under Finance, the statewide discipline and not under a business, economics or management department. Dance courses, DAA, are listed under Dance, not under Physical Education. Within the specific disciplines, courses are listed alphabetically by prefix, then numerically within that prefix. Not all courses are offered in all terms or at all campuses. For current offerings, consult the listing of credit courses published each term prior to registration period on all campuses. The number of contact

hours per week following each course description are for 16-week terms. More contact hours are required per week for the six and 12-week terms. The cross references which follows will aid you in locating courses by prefix or discipline. Note: **Miami Dade College reserves the right to cancel classes and/or programs for which there is insufficient enrollment, to close a class when the enrollment limit in that class is reached and to make any schedule changes as necessary, including a change in time, days, credit, location or instructor. In the event of cancellation, the College will notify each registrant by email and/or by telephone and will issue a full refund. Miami Dade College is not responsible for any other related expenses.**

Prefix to Prefix Title to Statewide Discipline

ACG	Accounting - General	Accounting	126
ACO	Accounting Occupational/Technology	Accounting	226 *
ACR	HVACR: Heating/Ventilation/AC/Refrigeration	HVACR	228 *
AFH	African History	History	181
AFR	Air Force ROTC (Aerospace Studies)	Military Science	193
AMH	American History	History	181
AML	American Literature	English Language and Literature	165
ANT	Anthropology	Anthropology	132
ARC	Architecture	Architecture	132
ARH	Art History	Art	134
ART	Art	Art	134
ARV	Architectural/Drafting Technology	Architecture	231 *
ASC	Aviation Science	Aeronautical Science	127
ASL	American Sign Language	American Sign Language	131
AST	Astronomy	Physics	209
ATE	Animal Science:Technology	Agriculture	129
ATF	Aviation Technology Flight	Aeronautical Science	127
ATT	Aviation Technology Theory	Aeronautical Science	127
AVM	Aviation Management	Aeronautical Science	128
BAN	Commercial Banking (AIB)	Banking	135, 232 *
BCA	Building Construction Apprenticeships	Building Construction Apprenticeships	226 *
BCH	Biochemistry	Biochemistry	136
BCN	Building Construction	Building Construction	139
BCT	Building Construction	Building Construction	139
BOT	Botany	Biological Science	136
BRC	Banking	Banking	136, 232 *
BSC	Biological Sciences	Biological Science	137
BUL	Business Law	Business Law	139, 232 *
CAP	Computer Applications	Computer Sciences	141
CCJ	Criminology & Criminal Justice	Criminal Justice	146
CET	Computer Engineering Technology	Electrical/Electronic Technology	161
CGS	Computer General Studies	Computer Science	141, 232 *
CGV	Computer Concepts and Occupational Technology	Computer Science	232 *
CHI	Chinese Language	Asian Languages & Literature	141
CHM	Chemistry	Chemistry	140
CIS	Computer Information Systems	Computer Science/Engineering	142
CJC	Criminology & Criminal Justice	Criminal Justice	147, 233 *
CJE	Criminal Justice Development	Criminal Justice	148

*Vocational Certificate Courses (see pages 226-246)

		Page
CJK	Criminal Justice & Related Technologies	Criminal Justice 234 *
CJL	Criminal Justice Development	Criminal Justice 149
CJT	Criminal Justice Technology	Criminal Justice 149, 236 *
CLP	Clinical Psychology	Psychology 211
COP	Computer Programming	Computer Science 143
CPO	Comparative Politics	Political Science 210
CRW	Creative Writing	English Language & Literature 165
CTE	Home Economics: Clothing & Textiles	Fashion 169
CTS	Computer Technology & Skills	Computer Science 144, 232 *
DAA	Dance Activities	Dance 150
DAN	Dance	Dance 151
DEH	Dental Hygiene	Dental Hygiene 152
DEP	Developmental Psychology	Psychology 211
DES	Dental Support	Dental Support 153
DIG	Digital Media	Digital 169
EAP	English for Academic Purposes	ESL for Academic Purposes 168
ECO	Economics	Economics 153
EDF	Education: Foundations & Policy Studies	Education: Foundations & Policy Studies 153
EDG	Education: General	Education Systems 154
EEC	Education: Early Childhood	Education Systems 155
EEL	Engineering: Electrical	Engineering II 160
EET	Electronic Engineering Technology	Electrical/Electronic Technology 162
EEV	Electrical/Electronic Vocational	Electrical/Electronic Technology 233 *
EEX	Education: Exceptional-Child-Core Competencies	Education, Exceptional Child 156
EGN	Engineering General	Engineering General Support 160
EGS	Engineering: General/Engineering: Support	Engineering: General Support 160
EME	Education: Technology and Media	Education Systems 157
EMS	Emergency Medical Services	Emergency Medical Services 159
ENC	English Composition	English Language & Literature 165
	English College Preparatory	English College Preparatory 166
ENG	English: General	English Language & Literature 165
ENL	English Literature	English Language & Literature 165
EPI	Educator Preparation Institutes	Educator Preparation Institutes 247
ESC	Earth Science	Geology 175
EST	Electronic Specialty Technology	Electrical/Electronic Technology 163
ETC	Engineering Tech: Civil	Engineering Technologies 161
ETD	Engineering Tech: Drafting	Engineering Technologies 161
ETI	Engineering Tech: Industrial	Engineering Technologies 163
ETM	Engineering Tech: Mechanical	Engineering Technologies 164
EUH	European History	History 181
EVR	Occupational Safety & Health Tech.	Environmental Studies 166
FFP	Fire Fighting and Protection	Fire Science 172, 237 *
FIL	Film	Mass Communication 170
FIN	Finance	Finance 172
FOT	Foreign & Biblical Language in Translation	Foreign Literature 173
FRE	French Language	French Language & Literature 174
FRW	French Literature (Writing)	French Language & Literature 174
FSE	Funeral Services	Funeral Services 174
FSS	Food Service Systems	Nutrition 173
GEB	General Business	General Business 175, 237 *
GEO	Geography-Systematic	Geography 175
GER	German Language	German & Germanic Language & Literature 176

		Page
GLY	Geology	176
GRA	Graphic Arts	176, 238 *
GRV	Graphics	238 *
HAI	Haitian Creole Language	178
HCW	Haitian Creole Language	179
HFT	Hospitality Management	181, 233
HIM	Health Information Management	179, 238 *
HLP	Health, Leisure, Physical Education	205
HMV	Travel Agency Operations	246 *
HOS	Horticulture Sciences	131
HSC	Health Sciences	180, 240 *
HUM	Humanities	184
HUN	Human Nutrition	202
HUS	Human Services	183
IDH	Interdisciplinary Honors	184
IDS	Interdisciplinary Sciences	184
IND	Interior Design	185
INP	Industrial & Applied Psychology	212
INR	International Relations	211
INT	Education: American Sign Language & I	159
IPM	Horticulture Sciences	131
ISC	Interdisciplinary Sciences	185
ISS	Interdisciplinary Social Sciences	211, 216
ITA	Italian Language	185
JOU	Journalism	185
JPN	Japanese Language	185
LAH	Latin American History	181
LDE	Landscape Design	131
LIN	Linguistics	186
LIS	Library Science	186
LIT	Literature	165
MAC	Mathematics: Calculus & Pre-Calculus	189
MAD	Mathematics: Discrete	189
MAE	Mathematics Education	158
MAN	Management	186, 240 *
MAP	Mathematics Applied	189
MAR	Marketing	188
MAS	Mathematics: Algebraic Structures	190
MAT	Mathematics	190
	College Preparatory	190
MCB	Microbiology	138
MEA	Medical Assisting Technology	242 *
MET	Meteorology	192
MGF	Mathematics: General & Finite	190
MHF	Mathematics	158
MKA	Marketing Applications	188, 232 *
MLT	Medical Laboratory Technology	191, 243 *
MMC	Mass Media Communication	189
MNA	Management Applied	187, 240 *
MSL	Military Science	194
MSS	Massage Therapy	241 *

		Page
MTB	Mathematics - Technical and Business	Mathematics 190, 242 *
MTG	Mathematics:Topology & Geometry	Mathematics 190
MUC	Music: Composition	Music-General 194
MUE	Music: Education	Music-General 194
MUH	Music: History/Musicology	Music-General 194
MUL	Music: Literature	Music-General 194
MUM	Music: Music Commercial	Music-General 195
MUN	Music: Musical Ensembles	Music-General 196
MUO	Music: Opera/Musical Theatre	Music-General 196
MUS	Music	Music-General 196
MUT	Music:Theory	Music-General 197
MVB	Music:Applied-Brasses	Music-Applied 197
MVJ	Music:Applied-Jazz	Music-Applied 197
MVK	Music:Applied-Keyboard	Music-Applied 198
MVO	Music:Applied-Other Instruments	Music-Applied 198
MVP	Music:Applied-Percussion	Music-Applied 198
MVS	Applied Music: Strings	Music-Applied 198
MVV	Music:Applied-Voice	Music-Applied 198
MVW	Music:Applied-Woodwinds	Music-Applied 198
NMT	Nuclear Medicine Technology	Medical Imaging & Radiation Therapy 198
NUR	Nursing	Nursing 199
OCA	Office Computer Applications	Office Computer Applications 243 *
OCB	Oceanography	Oceanography 138
OCE	Oceanography	Oceanography 202
OCP	Oceanography	Oceanography 202
OPT	Ophthalmic Technology	Ophthalmic Technology/Vision Care 224
ORH	Ornamental Horticulture	Ornamental/Horticultural Science 131
OST	Office Systems Technology	Office Systems Technology 202
OTA	Office Technology Application	Office Technology Application 243 *
PAD	Public Administration	Public Administration 212
PAS	Physician Assistant	Physician Assistant 208
PCB	Process Biology	Biological Sciences 138
PCO	Psychology for Counseling	Psychology 212
PEO	Physical Education Acts (General)-Object Centered, Land	Physical Education 207
PET	Physical Education Theory	Physical Education 207
PGY	Photography	Photography 206, 244 *
PHI	Philosophy	Philosophy 206
PHM	Philosophy of Man & Society	Philosophy 206
PHT	Physical Therapy	Physical Therapy 207
PHY	Physics	Physics 209
PHZ	Physics	Physics 210
PLA	Paralegal/Legal Assisting/Legal Adm.	Legal Assisting 205
POR	Portuguese Language	Portuguese Language & Literature 211
POS	Political Science	Political Science 211
POT	Political Theory	Political Science 211
PRN	Practical Nursing	Practical Nursing 244 *
PSB	Psychobiology	Psychology 212
PSC	Physical Sciences	Physics 210
PSY	Psychology	Psychology 212
PTA	Precision Metals Technology	Precision Technology Apprenticeships 230 *
PTN	Pharmacy Technician	Health Care Providers 244 *
PUR	Public Relations	Mass Communication 189

		Page
QMB	Quantitative Methods in Business	Quantitative Methods in Business 212
RAT	Radiation Therapy	Radiologic & Nuclear Medicine/Technology 212
REA	Reading	Reading 214
	Reading College Preparatory	Reading College Preparatory 214
RED	Reading Education	Language Arts & English Education 214
REE	Real Estate	Real Estate 215, 245 *
REL	Religion	Religion 215
RET	Respiratory Therapy	Respiratory Therapy 215
RMI	Risk Management & Insurance	Risk Management & Insurance 245 *
RTE	Radiologic Technology	Radiologic & Nuclear Medical Technology 213
RTT	Radio & Television Technology	Radio/Television Technology 236 *
RTV	Radio-Television	Mass Communication 171
RUS	Russian Language	Slavic Language & Literature 216
SBM	General Business	Small Business Mgmt: Occupational/Tech. 188, 232 *
SCE	Science Education	Science Education 158
SLS	Student Life Skills	Student Life Skills 220, 245 *
SON	Sonography	Medical Imaging & Radiation Therapy 217
SOP	Social Psychology	Psychology 212
SOW	Social Work	Social Work 216
SPA	Speech Pathology & Audiology	Speech Pathology & Audiology 132
SPC	Speech Communication	Speech Communication 219
SPN	Spanish Language	Spanish Language & Literature 219
SPT	Spanish Literature in Translation	Spanish Language & Literature 219
SPW	Spanish Literature (Writings)	Spanish Language & Literature 219
STA	Statistics	Statistics 220
SUR	Surveying & Related Areas	Surveying & Mapping 220, 245 *
SYG	Sociology, General	Sociology 217
TAX	Taxation	Accounting 126
TDR	Engineering Technology: General	Engineering Technology: General 236 *
THE	Theatre Studies & General Resources	Theatre Arts 221
TPA	Theatre Production & Administration	Theatre Arts 221
TPP	Theatre Performance & Performance Training	Theatre Arts 222
TRA	Transportation and Logistics	Marketing/Transportation 188, 245 *
TSL	Teaching English as a Second Language	ESL/Teaching ESL 157, 220
VIC	Visual Communication	Mass Communication 172
VPI	Vocational Preparation	Vocational Preparatory Instruction 246 *
WOH	World History	History 181
ZOO	Zoology	Biological Science 139

COURSE DESCRIPTIONS

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, 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

ACG1949
Co-op Work Experience 1:
ACG **3 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 employee. 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 (3 hr. lecture)

ACG2001
Principles of Accounting 1 **3 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 (3 hr. lecture)

ACG2001L
Principles of Accounting 1 Lab **1 credit**
Provides the accounting student with support to achieve the objectives of ACG 2001. Corequisite: ACG 2001. Laboratory fee (2 hr. lab.)

ACG2011
Principles of Accounting 2 **3 credits**
Accounting for owners' equity with empha-

sis 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 (3 hr. lecture)

ACG2011L
Principles of Accounting 2 Lab **1 credit**
Provides the accounting student with support to achieve the objectives of ACG 2011. Corequisite: ACG 2011. Laboratory fee (2 hr. lab.)

ACG2021
Financial Accounting **3 credits**
An introduction to financial accounting concepts and analysis with emphasis on corporate financial statements and determination of income. Corequisite: ACG 2021L (3 hr. lecture)

ACG2021L
Financial Accounting Lab **1 credit**
Students will learn to interpret and solve problems related to the financial field. Additional support will be provided to the students in order to achieve the objectives of ACG2021. Corequisite: ACG2021. May be repeated for credit. Laboratory fee (2 hr. lab.)

ACG2031
Accounting Theory **3 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 (3 hr. lecture)

ACG2071
Managerial Accounting **3 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 (3 hr. lecture)

ACG2071L
Managerial Accounting Lab **1 credit**
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. Prerequisites: ACG2021, ACG2021L; Corequisite: ACG2071. Laboratory fee (2 hr. lab.)

ACG2100
Intermediate Accounting 1 **3 credits**
A review of the accounting cycle and advanced work in the area of temporary investments, receivables, inventories, plant assets, and investments in stock and bonds. Prerequisite: ACG 2071. Special fee (3 hr. lecture)

ACG2170
Financial Statement Analysis **3 credits**
Basic instruction in analyzing statements in order to make sound judgments on the financial condition of specific businesses. Prerequisite: ACG 2071. Special fee. (3 hr. lecture)

ACG2360
Cost Accounting **3 credits**
A consideration of the accumulation, interpretation and control of costs by the job order and the process cost systems. Includes the study of break-even analysis, budgeting and other cost control techniques. Prerequisite: ACG 2071. Special fee. (3 hr. lecture)

ACG2450
Microcomputers in Accounting **1-3 credits**
Accounting application of electronic data processing including the preparation interpretation and use of computer information in financial decision making. Pre-/Corequisite: ACG 2001 or ACG 2021. Special fee (1-3 hr. lecture)

ACG2630
Auditing **3 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. Special fee. (3 hr. lecture)

ACG2949
Co-op Work Experience 2:
ACG **3 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. (3 hr. lecture)

TAX2000
Income Tax **3 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. Special fee. (3 hr. lecture)

TAX2010

Business Taxes & Returns 3 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. (3 hr. lecture)

Aeronautical Science

ASC1010

Aerospace History 3 credits
This course is designed to provide the student with an understanding of the significant events, people, places and technologies of aviation that have occurred as it progressed through history. The course begins centuries before man flew when concepts of flight were first being imagined to the first successful hot air balloons and the first heavier than air attempts at flight and continues to the present day with supersonic aircraft and space vehicles from both a civilian and military perspective. (3 hr. lecture)

ASC1210

Aviation Meteorology 3 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. Special fee (3 hr. lecture)

ASC1550

Aerodynamics 3 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. (3 hr. lecture)

ASC1610

Aircraft Engines and Structure Theory 3 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. (3 hr. lecture)

ASC2320

Aviation Laws and Regulations 3 credits
This course is an insight pertinent to federal governing bodies, and current local, federal and international laws forming the present structure of aviation law. (3 hr. lecture)

ASC2470

Physiology/Psychology of Flight 3 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. (3 hr. lecture)

ASC2670

Aircraft Systems 3 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. (3 hr. lecture)

ATF1100

Private Pilot Flight 3 credits
This course provides flight training in the areas required to safely perform the duties of Private Pilot. This will fulfill the requirements as outlined in FAR part 141 and as presented in the Jeppesen Sanderson Private Pilot syllabus. Upon satisfactory completion of this course, the FAA written exam and the practical exam, the applicant will receive an FAA Private Pilot Certificate; A Class 1 FAA Medical Certificate is required. Corequisites: ATT 1100, ASC 1210. Special fee. (3 hr. lecture)

ATF1601L

Flight Orientation/Simulator Lab 1 credit
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. Special fee. (2 hr. lab.)

ATF2200

Instruments Pilot Flight 3 credits
This course provides the flight training required to safely conduct flights as an instrument-rated pilot. The training is conducted in accordance with Part 141 of the Federal Aviation Regulations 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. Prerequisites: ATF 1100; FAA Private Pilot Certificate; Corequisites: ATT 2120; current FAA Medical Certificate. Special fee. (3 hr. lecture)

ATF2210

Commercial Pilot Flight 3 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 the FAA practical exam, the student will receive an FAA Commercial Rating. A Class 1 Medical Certificate with Instrument Rating is required. Special fee. (3 hr. lecture)

ATF2300

Multi-Engine Pilot Flight 1 credit
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 exam the student will receive an FAA Multi-Engine Rating. Prerequisite: ATF 1100 or ATF 2210; Corequisite: ATT 2133. Laboratory fee. (3 hr. lecture)

ATF2501

Flight Instructor-Flight Training 3 credits
This course provides flight training for the student to develop the ability to analyze the performance of private and commercial flight maneuvers from the right seat of a training aircraft, in compliance with the Federal Aviation Administration Certified Flight Instructor Certificate. Prerequisite: ATF 2300; Corequisites: ATT 2131, ATF 2501L. Special fee. (3 hr. lecture)

ATF2501L

Flight Instructor-Laboratory 1 credit
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. (2 hr. lab.)

ATF2651C

Flight Engineer-Turbojet 4 credits
This course will provide ground and simulator training for the purpose of obtaining a turbojet flight engineer license (Boeing 727) in accordance with provisions of FAR 63.64, FAR 63 Appendix C and Exemption 4901. Each trainee must hold a valid Commercial Pilot's Certificate with an instrument rating. Each trainee must also have successfully completed the FAA Flight Engineer Written Exam in accordance with FAR 63.35(d). (3 hr. lecture; 2 hr. lab.)

ATT1100

Private Pilot Theory 3 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. When this course is taken concurrently with ATT 1101, it will prepare students for the FAA (Federal Aviation Administration) Private Pilot Knowledge Examination and allow them to take the FAA exam (IAP047) upon completion of the course. This course meets the requirements of FAR part 141 for a ground school for the FAA Private Pilot Certificate. Corequisite: ASC 1210. (3 hr. lecture)

ATT1101**Private Pilot Applications 3 credits**

This course, together with ATT 1100, provides the basic knowledge needed by students in the Professional Piloting Technology program. The two courses must be taken concurrently by students majoring in the professional Piloting Technology program. The areas of study include: aircraft preflight, the planning and preparations prior to flight, airport operations, airspace, Federal Aviation Regulations, flight information publications, air navigation, cross country navigation, radio navigation, and flight safety. When this course is taken simultaneously with ATT 1100, it will prepare students for the FAA (Federal Aviation Administration) Private Pilot Knowledge Examination and allow them to take the FAA exam (IAP047) upon completion of the course. Corequisites: ATT 1100, ASC 1210. (3 hr. lecture)

ATT2110

Commercial Pilot Theory 3 3 credits
This 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 2200. Corequisite: ATF 2300 or ATF 2210. (3 hr. lecture)

ATT2120**Instruments Pilot Theory 4 credits**

This 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. Prerequisites: ASC 1210, ATF 1100, ATT 1100; Corequisite: ATF 2200. (4 hr. lecture)

ATT2131**Flight Instructor Theory 3 credits**

This course 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 2300; Corequisites: ATF 2501, ATF 2501L. (3 hr. lecture)

ATT2133**Multi-Engine Pilot Theory 2 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 (2 hr. lecture)

ATT2660**Regional Airline Operations 3 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. (3 hr. lecture)

ATT2820**Air Traffic Control 3 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 major program. (3 hr. lecture)

ATT2821**Air Traffic Control (ATC)****Radar 3 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: ASC 1210. (2 hr. lecture; 2 hr. lab.)

ATT2822**VFR Tower Operations 3 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. Special fee. (3 hr. lecture)

ATT2823**Air Traffic Control (ATC)****NON-Radar 3 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. Special fee. (3 hr. lecture)

AVM1010**Aviation Industry Operation 3 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. (3 hr. lecture)

AVM1022**Flight Operations 3 credits**

This course will teach investigation of the occupational duties, responsibilities, and physical facilities required by the positions of pilot, co-pilot, flight engineer, dispatcher and flight attendant. (3 hr. lecture)

AVM1062**Aviation Career Planning 1 credit**

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. A.S. degree credit only. (1 hr. lecture)

AVM1121**Hazardous Materials/
Dangerous Goods 3 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. Special fee. (3 hr. lecture)

AVM1301**Aviation Sales and Promotion 3 credits**

A presentation and utilization of sales methods, sales tools, sales opportunities and personal sales skills requirements for entry level sales employment in the aviation industry. Included are sales campaign planning and implementation factors of flight, travel and cargo options. (3 hr. lecture)

AVM1440**Aviation/Airport Security 3 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. (3 hr. lecture)

AVM1520**Airline Reservations 3 credits**

Prepares students for airline employment

opportunities through a familiarization of the procedures involved in airline reservations, cargo reservation and route structures, using the American Airline's SABRE reservations and LATA systems. This course is not approved for the Travel Agency Management degree. A.S degree credit only. Special fee. (3 hr. lecture)

**AVM1521
Airline Ticketing 3 credits**

A preparation for airline employment opportunities requiring the responsibilities of airline ticketing procedures manual and automated (American Airline's SABRE system) for domestic and international ticketing, teleticketing, boarding procedures, and immigration guides. This course is not approved for the Travel Agency Management Degree. A. S. degree credit only. Special fee. (3 hr. lecture)

**AVM1949
Co-op Work Experience 1: AVI 3 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. (3 hr. lecture)

**AVM2120
Air Cargo 3 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. (3 hr. lecture)

**AVM2410
Principles of
Airport Management 3 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. Special fee. (3 hr. lecture)

**AVM2431
Customer Service Agent 3 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. (3 hr. lecture)

**AVM2441
Aviation Safety &
Human Factors 3 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. (3 hr. lecture)

**AVM2450
Airport Facilities/
Financial Planning 3 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. Special fee. (3 hr. lecture)

**AVM2510
Airline Management 3 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. (3 hr. lecture)

**AVM2515
Airline Marketing 3 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. (3 hr. lecture)

**AVM2949
Co-op Work Experience 2: AVI 3 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. (3 hr. lecture)

Agriculture & Related Technologies

**ATE1110
Animal Anatomy 3 credits**

This course explores the physical and functional phenomena that interact to sustain life in animals. Relationships of all of the systems in domestic animals, such as the osseous apparatus, the respiratory, digestive, genitourinary, endocrine, and nervous systems will be presented. The student will also be introduced to the descriptive and topographical terms needed to communicate with the

professional staff. Prerequisites: BSC 1005, 1005L, ENC 1101; Corequisites: ATE 1110L, 1211, 1650L, 1940. (3 hr. lecture)

**ATE1110L
Animal Anatomy
& Physiology Lab 1 credit**

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. (2 hr. lab.)

**ATE1211
Animal Physiology 3 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. (3 hr. lecture)

**ATE1630
Pharmacology for
Veterinary Technicians 2 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. A.S. degree credit only. (2 hr. lecture)

**ATE1650L
Introduction to
Clinical Practice 1 1 credit**

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. A.S. degree credit only. (3 hr. clinic)

**ATE1940
Veterinary Clinical
Experience 1 3 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. (3-9 hr. clinic)

**ATE1941
Veterinary Clinical
Experience 2 3 credits**

This course consists of supervised clinical experience in the veterinary workplace. Students will learn to enhance the compe-

tencies 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. (6-9 hr. clinic)

ATE2050L**Animal Nursing & Medicine Laboratory 2 2 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. (2 hr. lab.)

ATE2611**Animal Medicine 1 3 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. (3 hr. lecture)

ATE2612**Small Animal Nursing 2 3 credits**

This course is 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. (3 hr. lecture)

ATE2614**Animal Medicine 2 3 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, ATE 2611. (3 hr. lecture)

ATE2631**Small Animal Nursing 1 3 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, ATE 1211; Corequisites: ATE 2611, ATE 2655L. (3 hr. lecture)

ATE2636**Large Animal Clinic & Nursing Skills 2 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. (2 hr. lecture)

ATE2636L**Large Animal Clinic & Nursing Skills Laboratory 1 credit**

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. (2 hr. lab.)

ATE2638**Animal Lab Procedures 1 3 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: ATE 1110, 1211; Corequisite: ATE 2638L. (6 hr. lab.)

ATE2638L**Animal Lab Procedures 1 Laboratory 2 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. (4 hr. lab.)

ATE2639**Animal Lab Procedures 2 3 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 exfoliative 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. (3 hr. lecture)

ATE2639L**Animal Lab Procedures 2 Laboratory 2 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. (4 hr. lab.)

ATE2652L**Introduction to Clinical Practice 2 1 credit**

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; Corequisite: ATE 1941. (1 hr. lab.)

ATE2655L**Animal Nursing & Medicine Laboratory 1 2 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. (4 hr. lab.)

ATE2661**Large Animal Diseases 1 credit**

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. (1 hr. lecture)

ATE2710**Animal Emergency Medicine 2 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, ATE 2631, ATE 2655L. (2 hr. lecture)

ATE2722C**Avian & Exotic Pet Medicine 2 credits**

This course is designed to acquaint students with the medical care associated with exotic animals and avian species. Students will learn types of species that may be encountered in a practice and their associated care techniques. A.S. degree credit only. (1hr. lecture; 2 hr lab)

ATE2942**Veterinary Clinical Experience 3 4 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. A. S. degree credit only. (6-12 hr. clinic)

ATE2943**Veterinary Clinical Experience 4 1-3 credits**

This course consists of supervised clinical experience in a work place approved by the college. All aspects of critical and non-critical care will be observed and performed under the supervision of a veterinarian. The areas of competency of Veterinary Clinical Experience 1, 2 and 3 will be reinforced. The student receives no monetary compensation for the nine clinical hours. Prerequisite: ATE 2942; Corequisites: ATE 2050L, 2612, 2614. (9 hr. clinic)

HOS1010**Horticulture 1 3 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. (3 hr. lecture)

HOS1011**Horticulture 2 3 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. Special fee. (3 hr. lecture)

IPM2112**Principles of Entomology 3 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 pests specific to South Florida and methods to responsibly manage plant pests. (3 hr. lecture)

IPM2301**Pesticide Applications 3 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. A.S. degree credit only. Special fee. (3 hr. lecture)

IPM2635**Introduction to Plant Pathology 3 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. A.S. degree credit only. Special fee. (3 hr. lecture)

LDE2000**Planting Design 1 4 credits**

Basic principles of design, on-the-job sketching and plan presentation as used by nurseries. Prerequisite: ORH 1510. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

LDE2310**Irrigation Design & Maintenance 3 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. Special fee. (3 hr. lecture)

ORH1251**Nursery Practices 1 3 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. Laboratory fee. (2 hr. lecture; 2 hr. lab.)

ORH1510**Landscape Plant Identification 1 3 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. (3 hr. lecture)

ORH1511**Landscape Plant Identification 2 3 credits**

The student will learn to identify and classify plants used in the horticulture industry in South Florida. Prerequisite: ORH1510. A.S. degree credit only. (3 hr. lecture)

ORH1840C**Landscape Construction 2 credits**

The student will learn to analyze a landscape site, read blueprints, and prepare a site for landscape installation. Basic construction techniques such as creating and maintaining wood structures, mixing concrete, and installing hardscape will be covered. Taught from a hands-on perspective. Occasional Saturday activities. A.S. degree credit only. Laboratory fee. (4 hr. lab.)

ORH2230**Exterior Plant Usage and Maintenance 3 credits**

This course emphasizes the maintenance and installation of exterior plants in the South Florida Environment. Students will learn installation procedures for bedding plants, shrubs, trees/palms, and vines. Students will be required to become familiar with all plants and equipment names and uses. A.S. degree credit only. Special fee. (3 hr. lecture)

ORH2277**Foliage Plant Production 3 credits**

Students will learn plant propagation techniques such as the taking of cuttings, divisions, and seeds, along with aseptic and meristem culture. Students will be required to look for insect diseases, and other cultural problems associated with foliage production and learn how to combat these problems. Environmental factors affecting foliage plants such as water, humidity, light, and temperature will be studied in relation to growing foliage plants specifically in South Florida. A.S. degree only. Special fee. (3 hr. lecture)

ORH2835C**Computer-Aided Landscape Design 1 2 credits**

Students will learn CAD fundamentals and

then create computer generated drawings. Using these fundamentals and landscape design concepts, students will generate both landscape and hard scape aspects of residential landscape designs. A combination lecture/lab course. Prerequisites: CGS 1060 (or equivalent) and working Knowledge of landscape plants or permission of instructor. (1 hr. lecture; 2 hr. lab.)

ORH2837C**Computer-Aided Landscape Design 2 2 credits**

Students will carry out landscape design projects with CAD as required in a landscape design business. Appropriate landscape design principles will be applied to landscape projects and presented in CAD-generated drawings. A combination lecture and lab course. Prerequisites: ORH 2835C, CGS 1060 (or equivalent) and working knowledge of landscape plants or permission of instructor. (1 hr. lecture; 2hr. lab.)

ORH2873**Interior Landscaping 3 credits**

The students will learn to become familiar with the selection, adaptation, installation, and maintenance of indoor plants. Watering, fertilizing, pest control, and pruning methods specific to interior plants will be discussed. Occasional Saturday labs/field trips and laboratory sessions will be required. A. S. degree credit only. Special fee. (3 hr. lecture)

ORH2932**Special Topics in Landscaping 1 credit**

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. A.S. degree credit only. (1 hr. lecture)

ORH2949**Landscape Technology Internship 3 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. (144 hr. internship)

American Sign Language & ASL Interpretation

ASL1000**Survey of Deaf Studies 3 credits**

Provides an overview of aspects of deafness including demographics, audiology, education, rehabilitation, assistive devices and organizations on deafness and interpreting. (3 hr. lecture)

ASL1140C**American Sign Language 1 4 credits**

Provides introductory information on the linguistics of American Sign Language and approximately 500 sign concepts. Course includes lecture, discussion and lab practice. (4 hr. lecture)

ASL1150C**American Sign Language 2 4 credits**

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. (4 hr. lecture)

ASL1906**Directed Independent Studies****1-2 credits**

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. (4 hr. lecture)

ASL2160C**American Sign Language 3 4 credits**

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. (4 hr. lecture)

ASL2200C**American Sign Language 4 4 credits**

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. (4 hr. lecture)

ASL2210**ASL Conversational Skills 3 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. (3 hr. lecture)

ASL2220**Receptive Skills Development 3 credits**

The course will focus on increasing the students' 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. (3 hr. lecture)

ASL2400**Linguistics of American Sign Language****3 credits**

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. (3 hr. lecture)

ASL2430**Manual alphabet Skills Development****3 credits**

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. (3 hr. lecture)

ASL2510**Deaf Culture and Community 3 credits**

The course provides an in-depth study of the lives and experiences of deaf and hard of hearing persons and it examines why many deaf people consider themselves to belong to a unique cultural group. Characteristics of the culture are examined along with the impact of hearing loss on one's family, friends and employment. Multicultural issues will be covered since the impact of hearing loss is addressed differently in various ethnic groups. Also examined are societal attitudes regarding disability in general and hearing loss and communication difficulties in particular. Prerequisites: ASL 1150C, 1000. (3 hr. lecture)

SPA2001**Introduction to Communication Disorders****3 credits**

An introduction to functional and organic speech problems which interfere with oral communications and to the profession of speech science and correction; speech and hearing therapy, in public, private, or governmental agencies. (3 hr. lecture)

Anthropology

ANT2410**Introduction to Cultural Anthropology****3 credits**

The nature of culture, personality, and social organizations. Emphasis is on the customs of pre-literate people. (3 hr. lecture)

ANT2511**Introduction to Physical Anthropology****3 credits**

Man as a biological unit in the animal kingdom. The human fossil record, living primates, the criteria of race and races of man, principles of biological evolution and human genetics. (3 hr. lecture)

Architecture

ARC1113**Sketchbook Studies****3 credits**

This course focuses on the development of perception and awareness of major architectural monuments, historical sites, and public spaces through two-dimensional architectural renderings performed in situ. Freehand perspective drawings will be created in black and white, with color as applicable. Mediums of presentation will vary from pencil to pen. (3 hr. lecture; 2 hr. lab.)

ARC1115**Architectural Communications 1****2 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. Laboratory fee. (1 hr. lecture; 2 hr. lab.)

ARC1126**Architectural Drawing 1****4 credits**

Exercises in the visualization and drafting of architectural objects and construction conditions using orthographic projection, isometric and sectional drawings as an expression of architectural communication. Includes plans, elevations, details, schedules, and sections of a wood frame and masonry structures. Prerequisite: BCN 1251. One year high school architectural drafting. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

ARC1128**Architectural Drawing 2****4 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. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

ARC1301**Architectural Design 1****4 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. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

ARC1302**Architectural Design 2****4 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. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

ARC1949**Co-op Work Experience 1:**

ARC 3 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 GPA, approval of Co-op Program Director and a minimum of 6 credits in field or approved work experience. (3 hr. lecture)

ARC2053**Architectural Computer**

Applications 4 credits
Applications of software and computer languages in the fields of architecture, building construction and interior design. Corequisite: ARC2052. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

ARC2056**Computer Aided**

Architectural Presentation 4 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. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

ARC2171**Computer Aided Drafting 1** 4 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. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

ARC2172**Computer Aided Drafting 2** 4 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. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

ARC2178C**Introduction to Building Surfacing** 4 credits

A BIM course introducing building surfacing and form finding technology. Students will learn the practice of creating complex building models and non-traditional architectural geometries, exploring design intent modeling, and generating solid models from surface models through AEC related objects. Design drivers, computational geometry, and advanced assembly techniques are explored. Prerequisite: ARC 2180C (2 hr. lecture; 4 hr. lab.)

ARC2180C**Introduction to 3D building Modeling** 4 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. (2 hr. lecture; 4 hr. lab.)

ARC2201**Theory of Architecture** 3 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. (3 hr. lecture)

ARC2303**Architectural Design 3** 5 credits

Integration of the natural and built environment with physiological, functional, organizational, spatial and environmental forces. Prerequisites: ARC1302 and 2461. Laboratory fee. (2 hr. lecture; 6 hr. lab.)

ARC2304**Architectural Design 4** 5 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. Laboratory fee. (2 hr. lecture; 6 hr. lab.)

ARC2312C**Introduction to Building Assembly Modeling** 4 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. (2 hr. lecture; 4 hr. lab.)

ARC2461**Architectural Materials and Construction 1** 4 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. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

ARC2580**Architectural Structures 1** 4 credits

A basic structural course, designed primar-

ily for Architectural and Construction major, covering the fundamentals of statics. Timber design emphasized. Prerequisite: MAC1114; Pre-/Corequisites: PHY 2053, 2053L and ARC 1126, 2461. Laboratory fee. (3hr. lecture; 2 hr. lab.)

ARC2681**Environmental Technology** 3 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. (3 hr. lecture)

ARC2701**History of Architecture 1** 3 credits

A general survey of architecture from primitive times through the 18th century including an integration of art forms, structural forms and ornamental forms used in various cultures of the world during those times. (3 hr. lecture)

ARC2702**History of Architecture 2** 3 credits

A general survey of architecture from the 19th century through the present, including an integration of art forms, structural forms, and ornamental forms used in various cultures of the world during these times. Gordon Rule assigned. (3 hr. lecture)

ARC2765**An Introduction to: Cities of the World** 3 credits

This course is a comparative study of contemporary cities industrialized, developing and redeveloped and/or reconstructed. This course is conducted abroad. Students will learn about improving the quality of our man-made environment by seeing first-hand, positive progress towards civilizing cities of the world. Separation of pedestrian and traffic ways, and the amenities which result, will be a major element of study. Assiduous use of the natural environment will be observed and studied. (3 hr. lecture)

ARC2767**Architectural History: Urban Spaces** 3 credits

Studies in situ of major urban spaces, with accompanying critical analyses of those spaces. A historical overview of the architecture of the places and spaces studied, with specific attention given to the ambiance, color, light, texture, and patterns, will be presented. The history of the community activities occurring in the spaces will be further analyzed, with appropriate urban and regional planning evaluations. Principles of positive planning will be studied, with the intention of developing knowledge of urban planning process and practice. (3 hr. lecture)

ARC2949**Co-op Work Experience 2: ARC** 3 credits

This is a course designed to continue train-

ing 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. (3 hr. lecture)

Art

ARH1000

Art Appreciation 3 credits
The role of art in everyday living in the home, the school and the community. A lecture course illustrated with films and slides. (3 hr. lecture)

ARH2050

Art History 1 3 credits
A world survey of the visual arts from prehistory to 800 A.D. (3 hr. lecture)

ARH2051

Art History 2 3 credits
A world survey of the visual arts from 800 to 1850 A.D. Prerequisite: ARH 2050. Gordon Rule assigned. (3 hr. lecture)

ARH2402

Art History 3 3 credits
A world survey of modern visual arts from 1850 A.D. - present. Prerequisite: ARH 2051. (3 hr. lecture)

ARH2740

Cinema Appreciation 3 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. Gordon Rule Assigned. (2 hr. lecture; 2 hr. lab.)

ART1201C

Basic Design 3-4 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. (1-2 hr. lecture; 4 hr. lab.)

ART1202C

Two-Dimensional Design 3-4 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. (1-2 hr. lecture; 4 hr. lab.)

ART1203C

Three Dimensional Design 3-4 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. (1-2 hr. lecture; 4 hr. lab.)

ART1205C

Color and Composition 1 3-4 credits
Color and Composition 1 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. (1-2 hr. lecture; 4 hr. lab.)

ART1300C

Drawing 3-4 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. (1-2 hr. lecture; 4 hr. lab.)

ART1330C

Figure Drawing 3-4 credits
Drawing and painting from the live model with emphasis on structure, movement and expression. Laboratory fee. (1-2 hr. lecture; 4 hr. lab.)

ART1803C

Workshop for ART Research and Practice: Studio 6 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 or artistic meaning. Concepts in two-dimensional and three-dimensional design will be explored through studio experience. (12 hr. lab.)

ART1949

Co-op Work Experience 1:
ART 3 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. (3 hr. lecture)

ART2142C

Advanced Metals 4 credits
Individualized instruction in metal forming specifically oriented toward the students aesthetic concerns. May be repeated for credit.

Prerequisites: ART 2150C, 2151C. (2 hr. lecture; 4 hr. lab.)

ART2150C

Jewelry and Metalsmithing 1 4 credits
An introduction to creative design as applied to jewelry, flatware, and hollowware forms. Prerequisite: ART 1202C or 1300C. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

ART2151C

Jewelry and Metalsmithing 2 4 credits
Advanced techniques in jewelry making and metalsmithing. Prerequisite: ART 2150C. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

ART2301C

Drawing 2 3-4 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. (1-2 hr. lecture; 4 hr. lab.)

ART2302C

Advanced Drawing 3-4 credits
An explanation of varied approaches to drawing through studio problems. May be repeated for credit. Prerequisites: ART 1300C, 1330C. Laboratory fee. (1-2 hr. lecture; 4 hr. lab.)

ART2400C

Printmaking 1 3-4 credits
Basic techniques of printmaking including relief prints (wood cut and wood engraving), intaglio (drypoint and etching) and lithography. Prerequisite: ART 1202C or 1300C. Laboratory fee. (1-2 hr. lecture; 4 hr. lab.)

ART2401C

Printmaking 2 3-4 credits
Advanced techniques in printmaking. Prerequisite: ART 2400C. Laboratory fee. (1-2 hr. lecture; 4 hr. lab.)

ART2406C

Advanced Printmaking 3-4 credits
Individualized instruction on printmaking concepts specifically oriented toward the student's aesthetic concerns. May be repeated for credit. Prerequisites: ART 2400C, 2401C. Laboratory fee. (1-2 hr. lecture; 4 hr. lab.)

ART2500C

Painting 1 3-4 credits
Studio problems in painting involving contemporary styles, techniques and materials. Prerequisite: ART 1202C or 1300C. (1-2 hr. lecture; 4 hr. lab.)

ART2501C

Painting 2 3-4 credits
Advanced techniques in painting. Prerequisite: ART 2500C. (1-2 hr. lecture; 4 hr. lab.)

ART2502C

Advanced Painting 3-4 credits
Individualized instruction in painting concepts specifically oriented to the student aesthetic concerns. May be repeated for credit. Prerequisites: ARRT 2500C, 2501C. (1-2 hr. lecture; 4 hr. lab.)

ART2600C

Computer Art 3-4 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. Special fee. (1-2 hr. lecture; 4 hr. lab.)

ART2601C

Intermediate Computer Art 3-4 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. (1-2 hr. lecture; 4 hr. lecture)

ART2602C

Advanced computer Art 4 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. (2 hr. lecture; 4 hr. lab.)

ART2701C

Sculpture 1 3-4 credits
An introduction to sculpting techniques and materials. Prerequisite: ART 1202C or 1300C. Laboratory fee. (1-2 hr. lecture; 4 hr. lab.)

ART2702C

Sculpture 2 3-4 credits
Advanced sculpturing techniques. Prerequisite: ART 2701C. Laboratory fee. (1-2 hr. lecture; 4 hr. lab.)

ART2703C

Advanced Sculpture 3-4 credits
Individualized instruction in sculptural concepts specifically oriented to the student's aesthetic concerns. May be repeated for credit. Prerequisite: ART 2701C, 2702C. Laboratory fee. (1-2 hr. lecture; 4 hr. lab.)

ART2750C

Ceramics 1 3-4 credits
Basic techniques in pottery designed - forming, decorating, glazing and firing. Prerequisites: ART 1202C or 1300C. Laboratory fee. (1-2 hr. lecture; 4hr. lab.)

ART2751C

Ceramics 2 3-4 credits
Advanced techniques in pottery design and preparation. Prerequisite: ART 2750C. Laboratory fee. (1-2 hr. lecture; 4 hr. lab.)

ART2771C

Advanced Ceramics 3-4 credits
Advanced work in ceramics. Emphasis placed

on individual concepts and their application in ceramics. May be repeated for credit. Prerequisites: ART 2750C, 2751C. Laboratory fee. (1-2 hr. lecture; 4 hr. lab.)

ART2802C

Visual Arts Workshop 1 - 4 credits
Special Studio Topics including methods, materials and theory related to specific studio processes. Permission of department chairperson. May be repeated for credit. (2-8 hr. lab.)

ART2949

Co-op Work Experience 2: ART 3 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. (3 hr. lecture)

ART2950

Portfolio Preparation - Art 3 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. (6 hr. lab.)

Banking

BAN1004

Principles of Banking 3 credits
A comprehensive introduction to banking in today's economy. The language and documents of banking, teller functions, deposit function, trust services, bank bookkeeping, bank loans, investments and the bank's role in the community are some primary topics. A.S. degree credit only. (3 hr. lecture)

BAN1013

Negotiable Instruments and the Payments Mechanism 3 credits
This course provides students with an introduction to the nature of a negotiable instrument and how it is collected through the payments mechanism. Content includes the form of negotiable instrument, the rights and responsibilities imposed on the parties who participate in the collection of a negotiable instrument during its journey through and payments mechanism and the relationship between the drawee bank and its customer, the drawer. Prerequisite: BAN 1800. A.S. degree credit only. (3 hr. lecture)

BAN1155

International Banking 3 credits
The basic framework and fundamentals of international banking: how money is trans-

ferred from one country to another, how trade is financed, what the international agencies are and how they supplement the work of commercial banks, international lending and how money is changed from one currency to another. Also included are discussions of basic letter of credit, collections and the Eurodollar market. A.S. degree credit only. (3 hr. lecture)

BAN1231

Introduction to Commercial Lending 3 credits
This course provides the knowledge and skills required to identify the credit needs of various types of small business customers and to sell a "total banking" relationship. It also prepares participants to assess the customer's credit worthiness by examining income statements and balance sheets. This course covers both the technical side of small business lending and the interpersonal skills required to be a successful loan officer. Prerequisites: ACG 2021, 2021L. (3 hr. lecture)

BAN1240

Installment Credit 3 credits
The pragmatic "how-to" details of installment credit. Topics covered are principles of credit evaluation, open-end credit, marketing bank services, collection policies and procedures, legal aspects, financial statement analysis, direct and indirect installment lending, leasing and other special situations, installment credit department management, insurance and rate structure yields. Designed for branch personnel and management trainees. A.S. degree credit only. (3 hr. lecture)

BAN1241

Bank Cards 3 credits
This course presents an overview and update of the bank card industry. The development of the card, operational aspects, legal and regulatory issues, and implications for the future of the card are discussed in depth. A.S. degree credit only. (3 hr. lecture)

BAN1425

Selling Bank Services 3 credits
Recognizing and meeting bank customer needs through checking accounts, savings services, loans to individuals, safe deposits, traveler's checks and cross-selling. Identification of the services their banks offer the scope and advantages of these banking services, customer needs based on a bank transaction or conversation with the customer and the appropriate service to the perceived customer need. Designed for tellers and new accounts personnel. A.S. degree credit only. (3 hr. lecture)

BAN1744

BankSim 3 credits
Through the use of a sophisticated computer model, participants actually "run" in a competitive society and a changing economy-a \$500 million commercial bank. Designed for operations, long term financial strength and asset utilization. A.S. degree credit only. (3 hr. lecture)

BAN1800**Law and Banking 3 credits**

An introduction to basic commercial law and its specific relationship to banking and bank transactions. Topics include contracts; agency and partnerships; personal property and sales; the Uniform Commercial Code; negotiable instruments and bank collections; and secured financing. A.S. degree credit only. (3 hr. lecture)

BAN2135**Bank Accounting 3 credits**

This course is designed to help the bank employee understand the elements of accounting as they relate to and are applied in the banking environment. Prerequisite: ACG 2001 or ACG 2021. A.S. degree credit only. (3 hr. lecture)

BAN2210**Analyzing Financial Statements 3 credits**

Techniques for the evaluation of financial condition and operating performance of a modern business enterprise. The course is divided into four parts: Financial Statement Analysis and Accounting; Financial Statements and Business Funds Flow; Tools of Financial Statements Analysis; and The Technique of Financial Statements Analysis. A.S. degree credit only. (3 hr. lecture)

BAN2211**Applied Financial Statement Analysis 3 credits**

This course will emphasize the fundamental techniques of financial statement analysis via the use of case studies to illustrate its use and implementation. Building upon a review of accounting concepts, the course will cover the analysis (including ratio analysis), and interpretation of financial accounting information including the balance sheet, income statement and statement cash flows. Prerequisite: BAN 2210. Special fee. (3 hr. lecture)

BAN2253**Residential Mortgage Lending 3 credits**

Introduction to the residential mortgage lending process, functions and participants. General principles in loan origination, underwriting and closing of residential mortgage loans will be covered. Course content will include the mortgage loan process of applying and qualifying for home loan financial and various types of loans available in the market place. A.S. degree credit only. (3 hr. lecture)

BAN2501**Money and Banking 3 credits**

A course designed to provide a comprehensive overview of the role of money and the banking industry within the United States and abroad. There is an emphasis on basic concepts in the areas of banking regulations, monetary policy, fiscal policy, interest rates, money creation, and foreign exchange markets. The class is designed for both students who are new to banking, as well as for bankers who need an update on the changes

affecting the banking industry. Prerequisite: ECO 2013. (3 hr. lecture)

BAN2511**Marketing for Bankers 3 credits**

Introduces the basics of bank marketing and provides the information necessary to understand the role of marketing in the business of banking. Builds fundamental marketing skills and demonstrates their application to various levels of business processes. Discusses effective strategic marketing process including research, analysis setting goals and objectives, evaluating marketing mix, implementation and evaluation of marketing plan, and communication of marketing objectives. Prerequisite: MKA 1021. A.S. Degree credit only. (3 hr. lecture)

BRC1059**Diversity Awareness and Customer Service 3 credits**

This course will consist of invited speakers on selected topics to address cultural norms and values and the resulting impact on customer service in order to help individuals of different cultures become homeowners. A.S. degree credit only. (3 hr. lecture)

BRC2266**Affordable Housing and Community 3 credits**

This course will cover specialized programs that provide financing opportunities to low and moderate-income households. Students will gain exposure to specific tools and techniques to facilitate homeownership, sources of funds, types of mortgages and various community lending product and non-traditional underwriting guidelines and home buyer education and counseling. A.S. degree credit only. (3 hr. lecture)

BRC2267**Fair Housing and Fair Lending 3 credits**

This course will cover the legislative policies origins of regulatory and compliance laws, designed to prohibit discriminatory practices in lending. A.S. degree credit only (3 hr. lecture)

BRC2268**Mortgage Loan Servicing and Quality 3 credits**

This course will cover servicing of mortgage loans from the close of the loan until the final payment. The student will be provided with an in-depth study of the actual procedures required in the daily operations of mortgage loan servicing. This course will include a study of the quality control technique and an understanding of the importance of the ethics in mortgage lending. A.S. degree credit only. (3 hr. lecture)

BRC2353**Marketing for Financial Institutions 2 credits**

The facts and principles of marketing are set forth in this course. Topic includes: the marketing concept and structure, marketing

information and buyer behavior, consumer and intermediate customers' buying behavior, product packaging and branding decisions, consumer and industrial goods, product planning and time-place utility, channels of distribution, promotion, pricing strategy, and developing a marketing program, controlling marketing programs, and the cost-value to society. A.S. degree credit only. (2 hr. lecture)

BRC2941**Field Experience in Mortgage Finance 3 credits**

Skills learned in the classroom environment are not only reinforced but become instilled in a student when opportunities in the practical work environment are presented. A.S. degree credit only. (3 hr. lecture)

Biochemistry

BCH3023**Introductory Biochemistry 3 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: CHM 2200, 2200L, BCH 3032L. (3 hr. lecture)

BCH3023L**Introductory Biochemistry Laboratory 2 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. (4 hr. lab.)

Biological Science

BOT1010**Botany 3 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. (3 hr. lecture)

BOT1010L**Botany Laboratory 1 credit**

Laboratory for BOT 1010. Corequisite: BOT 1010. Laboratory fee. (2 hr. lab.)

BOT2150C**Native Plant Identification and Usage in South Florida 3 credits**

Plants native to south Florida are identified and presented by their typical ecological community. Emphasis is primarily upon pine-land, tropical hammock, mangrove and coastal,

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. (2 hr. lecture; 2 hr. lab.)

BOT3015
Survey of Plant Diversity 3 credits
This course explores the plant kingdom and gives emphasis on structure, function and genetics of plants. This course covers the evolutionary relationships, natural history, ecological adaptations, physiology, morphology and reproductive biology of gymnosperms and angiosperms. (3 hr. lecture)

BOT3015L
Survey of Plant Diversity
Laboratory 1 credit
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. This laboratory course explores the plant kingdom and gives emphasis on structure, function and genetics of plants. Appropriate dissections and laboratory exercises are designed to explore the fundamental cell and tissue structures of both vascular and non-vascular plants. Prescribed laboratory activities focus on plant morphology, taxonomy, anatomy and physiology of selected representative specimens. Corequisite: BOT 3015. (2 hr. lab.)

BSC1005
General Education Biology 3 credits
This general education biology course covers basic biological concepts, concentrating on selected principles that help explain molecular biology, evolution, genetics, growth, disease, and the problems of humans in the environment. It is designed to stimulate interest in the variety of life that exists on our planet, help students recognize the factors that provide order in this variety, and involve students in the processes of inquiry, observation, and analysis of biological organization in order to give them a foundation for intelligently interpreting and evaluating biological topics. (3 hr. lecture)

BSC1005L
General Education Biology
Laboratory 1 credit
An optional one-credit lab to provide students with experience in the scientific process. Laboratory fee. (2 hr. lab.)

BSC1030
Social Issues in Biology 3 credits
Social Issues in Biology develops in students an understanding and appreciation for living systems (including themselves) and the skills and knowledge needed to address biological issues that are important and relative to their lives and the society in which they live. Such issues include, but are not limited to, the origin of biodiversity, advances in reproductive technology, genetic engineering, scientific ethics, advances in the treatment of disease

and genetic disorders, environmental problems and sociobiology. (3 hr. lecture)

BSC1050
Biology & Environment 3 credits
This course provides students with an understanding and appreciation of how the natural world functions, how human attitudes and actions alter nature systems, creating environmental problems, and how sustainable approaches may resolve these problems. (3 hr. lecture)

BSC1084
Functional Human Anatomy 3 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. (3 hr. lecture)

BSC1949
Co-op Work Experience 1:
BIO 3 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 Cooperative Education Office to obtain registration approval. (3 hr. lecture)

BSC2010
Principles of Biology 3 credits
This is the first sequence of two courses that deal with the principles of modern biology. It covers scientific process, the chemistry of life, the basics of metabolism, cell theory, cellular respiration, photosynthesis, classical, and molecular genetics. Pre/Corequisites: BSC 2010L, CHM 1045. Special fee. (3 hr. lecture)

BSC2010L
Principles of Biology 1
Laboratory 2 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. Special fee. (4 hr. lab.)

BSC2011
Principles of Biology 2 3 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. Special fee. (3 hr. lecture)

BSC2011L
Principles of Biology Lab 2 2 credits
This course is intended for major's stu-

dents and complements the lecture course BSC 2011. As such, it functions to provide 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. (4 hr. lab.)

BSC2020
Human Biology: Fundamentals of Anatomy/Physiology 3 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. (3 hr. lecture)

BSC2085
Human Anatomy and Physiology 1 3 credits
The structure and functions of the systems of the human body, emphasizing those aspects most pertinent to students in the nursing and allied health technology programs. Students are strongly recommended to complete CHM1033/1033L prior to taking BSC 2085/2085L. Corequisite: BSC 2085L. Special fee. (3hr. lecture)

BSC2085L
Human Anatomy and Physiology 1 Laboratory 1 credit
Laboratory for BSC 2085. Corequisite: BSC 2085. Laboratory fee. (2 hr. lab.)

BSC2086
Human Anatomy & Physiology 2 3 credits
The structure and functions of the systems of the human body, emphasizing those aspects most pertinent to students in the nursing and allied health technology programs. Prerequisite: BSC 2085; Corequisite: BSC 2086L. Special fee. (3 hr. lecture)

BSC2086L
Human Anatomy & Physiology 2 Laboratory 1 credit
Laboratory for BSC 2086. Prerequisite: BSC2085L, Corequisite: BSC 2086. Laboratory fee. (2 hr. lab.)

BSC2250
Natural History of South Florida 3 credits
Integrates and correlates certain features of the natural history of South Florida such as its geology, meteorology, flora, fauna, ecology and conservation. (3 hr. lecture)

BSC2420C
Biotechnology 1 5 credits
An introduction to the principles of DNA science. The course includes: the chemical and physical properties of nucleic acids (DNA and RNA), cloning, restriction analysis, gene transfer, DNA replication and expression, plasmids and other vectors, transcription and

translation, DNA libraries, polymerase chain reaction. Practical applications of biotechnology will be explored. Prerequisites: CHM 1045 and BSC 2010. Special fee. (3 hr. lecture; 4 hr. lab.).

BSC2423C

Methods & Applications of Cell Culture & Protein Biotechnology

4 credits

This course addresses the basic methods and principles of cell culture and protein biochemistry necessary for an understanding of the field and effective applications of cell culture and protein biotechnology are explored with hands-on training in plant and mammalian cell culture and protein purification. Prerequisites: BSC 2427, 2427L. Laboratory fee. (3 hr. lecture; 2 hr. lab.)

BSC2426

Biotechnology Methods and Applications 1

3 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. (3 hr. lecture)

BSC2426L

Biotechnology Methods & Applications 1 Laboratory

2 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. Laboratory fee. (4 hr. lab.)

BSC2427

Biotechnology Methods and Applications 2

3 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. (3 hr. lecture)

BSC2427L

Biotechnology Methods & Applications 2 Laboratory

2 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, tech-

niques, and instrumentation necessary for effective work in a pharmaceutical, biotechnology, and/or research-laboratory setting(s). Prerequisite: BSC 2426, 2426L; Corequisite: BSC 2427. Laboratory fee. (4 hr. lab.)

BSC2943L

Bioscience Internship

3-6 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. A.S. degree credit only. (144 - 288 hr. internship)

BSC2949

Co-op Work Experience 2:

BSC

3 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. (3 hr. lecture)

BSC4422

Biotechnology

3 credits

This course will prepare students in the knowledge and proper use of laboratory techniques including but not limited to dissection, preservation, staining and mounting of biological specimens for microscopic examination; the use of quantitative and analytical techniques such as chromatography, spectrophotometry and electrophoresis; the proper use of laboratory equipment such as centrifuges, balances, and microscopes. Preparing laboratory solutions, reagents, and field laboratory techniques. Special emphasis will be placed on appropriate laboratory safety techniques such as the proper use and disposal of laboratory reagents, materials and biological specimens. (3 hr. lecture)

BSC4422L

Biotechnology Laboratory

2 credits

This course provides students with practical, hands-on laboratory experiences to supplement the BSC4422 course. This laboratory course addresses the proper use of laboratory techniques including but not limited to: appropriate record keeping and experimental design, the use of quantitative and analytical techniques such as chromatography, spectrophotometry, and electrophoresis; the proper use of laboratory equipment such as centrifuges, balances, and microscopes; preparation and measurement of laboratory solutions and reagents; protein/nucleic acid isolation and characterization procedures; and tissue culture techniques. Special emphasis will be placed on relevant laboratory safety techniques and the proper use and disposal of laboratory reagents, materials

and biological specimens. Prerequisites: BSC2010, 2010L, 2011, 2011L, CHM 1045, 1045L, 1046, 1046L, MCB 2013, 2013L PCB 3060; Corequisites: BCH 3023, BSC 4422. (2 hr. lab.)

MCB2010

Microbiology

3 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. (3 hr. lecture)

MCB2010L

Microbiology Laboratory

2 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 CHM1033/1033Lor CHM 1045/1045L; Corequisite MCB 2010. (4 hr. lab.)

OCB1010

Introduction to Marine Biology

3 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. (3 hr. lecture)

OCB1010L

Introduction to Marine Biology Laboratory

1 credit

An optional laboratory class for OCB 1010. This laboratory course stresses understanding, familiarization, and identification of local marine organisms and study of local marine communities through field trips to selected local marine habitats and hands-on laboratory activities. An introduction to field collection methods and various sampling techniques is presented. (2 hr. lab.)

PCB2033

Introduction to Ecology

3 credits

This course will provide students with an understanding of an appreciation for how organisms relate to one another and their environment at the levels of biological organization from the individual to the biosphere.

Prerequisites: PSC 1515 or BSC 2011. (3 hr. lecture)

**PCB2061
Genetics** 3 credits

This course provides an understanding of the mechanisms of transmission of heritable information including classical principles of Mendelian genetic analysis, principles of modern genetic analysis, gene mapping change and regulation of gene expression. Quantitative genetic analysis, genomics, genetic basis of cell and cancer development will also be explored. Prerequisite: BSC 2010, 2010L. (3 hr. lecture)

**PCB3043
Fundamentals of Ecology** 3 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. (3 hr. lecture)

**PCB3060
Principles of Genetics** 3 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 bases of cancer and other genetic disorders will also be studied. Prerequisites: BSC 2010, 2010L. (3 hr. lecture)

**PCB4674
Evolution** 3 credits

This course is designed to provide students with an understanding of evolutionary theory and its significance to all fields of modern biology. It covers the theory of natural selection, the evidence for evolution, micro evolution, population genetics, speciation, macro evolution, the origin of life on Earth, major evolutionary trends, and evolution of humans and culture. Prerequisites: BSC 2010 2011L, PCB3060. (3 hr. lecture)

**ZOO1010
Zoology** 3 credits

A survey of the animal kingdom based on a detailed study of the morphology, anatomy, and physiology of selected representative specimens. Corequisite: ZOO 1010L. Special fee. (3 hr. lecture)

**ZOO1010L
Zoology Laboratory** 1 credit
Laboratory for ZOO 1010. Corequisite: ZOO 1010. Laboratory fee. (2 hr. lab.)

**ZOO3021
Survey of Animal Diversity** 3 credits

This course presents zoology as a scientific discipline, the theory of evolution according to natural selection, the basic principles of zoological nomenclature, taxonomy, and systematics, the basic understanding of the

relationships of animals to other organisms and to one another, and our understanding of the nature consequences, and outcome of the global biodiversity crisis. Prerequisites: BSC2010, 2010L, CHM 1045, 1045L. (3 hr. lecture)

**ZOO3021L
Survey of Animal Diversity
Laboratory** 1 credit

This laboratory course complements the lecture Corequisite ZOO 3021, which presents zoology as a scientific discipline, the theory of evolution according to natural selection, the basic principles of zoological nomenclature, taxonomy, and systematics, the basic understanding of the relationships of animals to other organisms, and to one another, and our understanding of the nature, consequences, and outcome of the global biodiversity crisis. This laboratory course provides hands-on experience with the concepts covered in the lecture course. Prerequisites: BSC 2010, 2010L, CHM 1045, 1045L; Corequisite: ZOO 3021. (2 hr. lab.)

Building Construction

**BCN1272
Building Construction
Plans Interpretation 1** 3 credits

Develops the ability to interpret working drawings quickly. Emphasis is on architectural and structural details with limited coverage on mechanical and electrical aspects. (3 hr. lecture)

**BCN1275
Building Construction
Plans Interpretation 2** 3 credits

Plan interpretation of more complex working drawings for multistory residential and commercial buildings. Students entering this course must have the ability to read and understand construction working drawings for single family residential construction. Identification of structural systems and their details are emphasized for these more complex buildings. Familiarity with all aspects of these working drawings will be addressed. Prerequisite: BCN 1272 or equivalent work experience. Special fee; (3 hr. lecture)

**BCT1743
Building Construction Law** 3 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 statutes and ordinances regulating contractors. (3 hr. lecture)

**BCT1750
Building Construction
Financing** 3 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. (3 hr. lecture)

**BCT1770
Building Construction
Estimating Fundamentals** 3 credits

An analysis and determination of building construction cost. The classification of materials, labor, and subcontracted work into the smallest manageable units. Development of a simple estimate for a residential structure. (3 hr. lecture)

**BCT1771
Building Construction
Advanced Estimating** 3 credits

Estimating more advanced elements of buildings construction involving commercial buildings. Include indirect and overhead costs, the preparation of bid proposals and related documents. Prerequisite: BCT1770. Special fee. (3 hr. lecture)

**BCT2760
Building Code Regulations** 3 credits

The restrictions and limitations of the various agencies concerned with the building industry. Provisions of the South Florida Building Code are stressed. (3 hr. lecture)

Business Law

**BUL2131
Legal Environment** 3 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. (3 hr. lecture)

**BUL2241
Business Law 1** 3 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. Special fee. (3 hr. lecture)

**BUL2242
Business Law 2** 3 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. Special fee. (3 hr. lecture)

Chemistry

CHM1020

General Education Chemistry 3 credits

This course provides the non-science major with an introductory study of the substances central to our daily lives. The students will learn the basic chemistry of nutrition, medicines, cosmetics, household cleaners and the environment. (3 hr. lecture)

CHM1020L

General Education Chemistry Laboratory 1 credit

This course provides the non-science major with an introductory study of the substances central to our daily lives. Students will learn the basic chemistry of nutrition, medicines, cosmetics, household cleaners and the environment in a laboratory setting. Co-requisite: CHM1020. (2 hr. lab.)

CHM1025

Introductory Chemistry 3 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. (3 hr. lecture)

CHM1025L

Introductory Chemistry Lab 1 credit

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. (2 hr. lab.)

CHM1033

Chemistry for Health Sciences 3 credits

This course emphasizes chemistry topics related to the allied health sciences through study of the essentials of inorganic chemistry, organic chemistry, biochemistry and their applications to physiological functions. Corequisites: CHM 1033L, MAT 1033 (3 hr. lecture)

CHM1033L

Chemistry for Health Sciences Lab 1 credit

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. (2 hr. lab.)

CHM1045

General Chemistry and Qualitative Analysis 3 credits

First half of the CHM 1045-1046 sequence for science, premedical science and engineering majors. Students in programs requiring both courses must complete the CHM 1045-1046 sequence prior to transfer to a senior institution. Major topics in modern chemistry include: stoichiometry, atomic structure, bonding, thermochemistry, acids and bases, solutions and gas laws. Prerequisite: CHM 1025 or high school chemistry with a grade of "C" or better; Corequisites: CHM 1045L, MAC 1105. Special fee. (3 hr. lecture)

CHM1045L

General Chemistry and Qualitative Analysis Lab 2 credits

Laboratory for CHM 1045. Prerequisite: CHM 1025 or high school chemistry with a grade of "C" or better; Corequisites: CHM 1045, MAC1105. Laboratory fee. (4 hr. lab.)

CHM1046

General Chemistry and Qualitative Analysis 3 credits

Second course in the CHM 1045-1046 sequence. Major topics in modern chemistry include: thermodynamics, kinetics, solutions equilibria including acids, bases and other ionic equilibria and electrochemistry. Prerequisite: MAC 1105, CHM 1046L with a grade of "C" or better; Corequisite: CHM1046L. Special fee. (3 hr. lecture)

CHM1046L

General Chemistry & Qualitative Analysis Lab 2 credits

Laboratory for CHM 1046. Prerequisite: CHM 1045, 1045L, and MAC 1105; Corequisite CHM 1046. Laboratory fee. (4 hr. lab.)

CHM1941

Principles & Techniques of Peer tutoring in Chemistry 1 credit

Provides an opportunity for outstanding students with at least one semester of general chemistry to assist other students to review and clarify principles and techniques in chemistry. Provides future professionals a chance to sharpen their communication skills. (1 hr. lecture)

CHM1949

Co-op Work Experience 1: CHM 3 credits

This is a course designed to provide training in a student's field of study through work experience. Students are graded in 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 Cooperative Education Office to obtain registration approval. (3 hr. lecture)

CHM2120C

Survey of Quantitative Analysis 4 credits

This course is a one-semester combination lecture-laboratory course covering the theories, calculations, and methodologies used in analytical chemistry. Topics include mathematical treatment of data; acid-based equilibria; and gravimetric, volumetric, and potentiometric methods of analysis. Prerequisites: CHM 1046, 1046L with a grade of "C" or better. Special fee. (2 hr. lecture; 4 hr. lab.)

CHM2132C

Basic Chemistry Instrumentation 3 credits

Designed for chemistry students and professionals who need to learn or refresh their abilities to use common instruments found in chemistry laboratories. Prerequisite: CHM1046 with a grade of "C" or better. Laboratory fee. (1 hr. lecture; 4 hr. lab.)

CHM2200

Survey of Organic Chemistry 3 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 chemical reactivity will be presented as a unifying principle. Prerequisite: CHM1046 with a grade of "C" or higher; Corequisite: CHM 2200L. (3 hr. lecture)

CHM2200L

Survey of Organic Chemistry Laboratory 1 credit

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 1046L with a grade of "C" or higher; Corequisite: CHM 2200. Special fee. (2 hr. lab.)

CHM2210

Organic Chemistry 1 3 credits

First half of the CHM 2210-2211 sequence. Students should complete the CHM 2210-2211 sequence before transferring to a senior institution. A study of the nomenclature, preparations, reactions and electronic and structural features of alkanes, alkenes, alkynes, alkyl halides, aromatic hydrocarbons and other organic compounds. Prerequisite: CHM 1046 with a grade of "C" or better; Corequisite: CHM 2210L. Special fee. (3 hr. lecture)

CHM2210L

Organic Chemistry 1 Laboratory 2 credits

Laboratory for CHM 2210. Prerequisite: CHM 1046, 1046L with grades of "C" or better; Corequisite: CHM 2210. Laboratory fee. (4 hr. lab.)

CHM2211

Organic Chemistry 2 3 credits

Second half of the CHM 2210-2211 sequence. A study of the 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 with a grade of "C" or better; Corequisite: CHM 2211L. Special fee. (3 hr. lecture)

CHM2211L
Organic Chemistry 2
Laboratory **2 credits**

Laboratory for CHM 2211. Prerequisites: CHM 2210, 2210L with grades of "C" or better; Corequisite: CHM 2211. Laboratory fee. (4 hr. lab.)

CHM2949
Co-op Work Experience 2:
CHM **3 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. (3 hr. lecture)

CHM3120
Introduction to
Analytical Chemistry **3 credits**

This course requires students to examine the theories, calculations, and methodologies used in analytical chemistry. Topics include: acid-based equilibria and titrations; precipitation and complex formation; electrochemistry; oxidation-reduction; spectrophotometric analytical methods; chromatographic techniques; statistical treatment of data; and sampling methods. Prerequisites: CHM 1046, 1046L with a grade of "C" or better; Corequisite: CHM 3120L. (3 hr. lecture)

CHM3120L
Introduction to Analytical
Chemistry Laboratory **2 credits**

Experiments will be performed to introduce students to various laboratory methods used to analyze and quantify representative samples. Prerequisites: CHM 1046, 1046L with a grade of "C" or better; Corequisite: CHM 3120. (4 hr. lab.)

CHM3610
Intermediate Inorganic
Chemistry **3 credits**

This course expands and deepens the student's knowledge of inorganic chemistry. Students will learn about bonding theories, nuclear chemistry, chemical periodicity, and metal and nonmetal chemistry. Prerequisite: CHM 2200. (3 hr. lecture)

CHS1522C
Forensic Science 1 **4 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 anal-

ysis. (3 hr. lecture)

CHS2311C
Analytical Chemical
Instrumentation **4 credits**

An introduction to a variety of chemical instrumentation commonly employed in the chemical and pharmaceutical industries. The course will combine lecture and discussion with laboratory experiences to present the principles of instrumental analysis as well to provide extensive hands-on experience with instrumentation commonly used in the chemical and pharmaceutical industries. Pre/Corequisites: CHM 2200, 2200L, 2120C or CHM 2210, 2210L, 2211, 2211L. Laboratory fee. (3 hr. lecture; 2 hr. lab.)

CHS2523
Forensic Science 2 **3 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. (3 hr. lecture)

Chinese Language

CHI1120
Elementary Mandarin
Chinese 1 **4 credits**

An integrated (multi-media) approach to acquire proficiency in the basic skills of Mandarin Chinese- listening/understanding, speaking, reading, writing, and cross-cultural awareness. Emphasis on practical vocabulary and accurate pronunciation. Practice in class and laboratory in understanding and using the spoken language; reading and writing with progressive grammatical explanations. (4 hr. lecture)

CHI1121
Elementary Mandarin
Chinese 2 **4 credits**

A continuation of Mandarin Chinese 1120. A proficiency-oriented course emphasizing the mastery of the basic skills of the language. (4 hr. lecture)

Computer Science & Related Technologies

CAP1760
Introduction to Analytics **4 credits**

This course is designed for students who require or are interested in basic aspects of data mining and analytics using domain-specific data. Students learn the computerized techniques by which to organize, manipulate, report, present, depict and analyze domain-specific data in order to find or otherwise derive information. Prerequisites: CGS 1060

and use of a desktop database application, or equivalent experience. Prerequisite: CG1060. Laboratory fee. (3 hr. lecture; 2 hr. lab.)

CAP2761
Advanced Analytics **4 credits**

This is an advanced course for students to review and expand the use and fundamentals of databases and database programming for implementing analytics. Students design data models and subsequently implement and use analytics and data mining techniques to derive information from domain-specific databases. The MySQL database engine and its SQL implementation will be used. Prerequisites: CAP 1760 and CIS 1321, or equivalent experience. Laboratory fee. (3 hr. lecture; 2 hr. lab.)

CGS1021
Scientific Computing **4 credits**

This course explores the specialized features of common computer desktop applications as applied to biotechnology data. Through hands-on practical assignments, students will study and practice the computerized techniques by which to organize, manipulate, report, present, depict and analyze bio molecular data and information. Laboratory fee. Corequisite: STA 2023; (3 hr. lecture; 2 hr. lab.)

CGS1060
Introduction to
Microcomputer Usage **4 credits**

This is an introductory level course that satisfies the College's computer competency requirement. Students will learn essential computer concepts and skills as well as knowledge of how to use, current software applications. Topics include word processing, spreadsheets, database, presentation software, email, Internet, and legal and ethical issues concerning the use of computers and the Internet. Laboratory fee. (3 hr. lecture; 2 hr. lab.)

CGS1081
Introduction of Computing
for the Visually Impaired **4 credits**

This course is designed to provide students with an overview of access technology, experience using it with applications and a chance to explore the wide range of opportunities that computers can offer to people who are blind. It will cover, the components of the computer, access technology, screen reading software, disk operating systems. DOS versus Windows, WordPerfect for DOS, and accessible software, including shareware and freeware. Prerequisite: Departmental Approval. A.S. degree credit only. (3 hr. lecture; 2 hr. lab.)

CGS1145
Introduction to
Bioinformatics **4 credits**

This course introduces the basic concepts and techniques of Bioinformatics. Through research papers, hands-on projects and use of common computational programs, students will apply aspects of Information Technology and Computer Science in order to analyze biological/bimolecular/bioinformatics data. Laboratory fee. (3 hr. lecture; 2 hr. lab.)

CGS1501**Word Processing Applications 4 credits**

A comprehensive course in the use of a word processor for microcomputers. The concepts, features, and commands of a word processor are applied to a variety of applications. Programming concepts will be introduced. Classes are conducted in a hands-on-lecture/laboratory environment where a microcomputer is available for each student. The content of this course will continually change to keep pace with current technology. CGS 1060 or computer experience is required. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab.)

CGS1511**Spreadsheet Applications 4 credits**

A comprehensive course in the use of a spreadsheet for microcomputers. The concepts, features, and commands of a spreadsheet are applied to a variety of applications. Programming concepts will be introduced. Classes are conducted in a hands-on lecture/laboratory environment where a microcomputer is available for each student. The content of this course will continually change to keep pace with current technology. Computer experience is required. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab.)

CGS1540**Database Concepts Design 4 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. Prerequisites: CGS1060 or CGS1021 or Computer Competency Test. A.S. degree only. Laboratory fee. (3 hr. lecture; 2 hr. lab.)

CGS1541**Database Applications 4 credits**

A comprehensive course in the use of a database for microcomputers. The concepts, features, and commands of a database are applied to a variety of applications. Programming concepts will be introduced. Classes are conducted in a hands-on-lecture/laboratory environment where a microcomputer is available for each student. The content of this course will continually change to keep pace with current technology. CGS 1060 or computer experience is required. Laboratory fee. A.S. degree credit only. (3hr. lecture; 2 hr. lab.)

CGS1560**A+ Computer Operating Systems 4 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. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab.)

CGS1580**Desktop Publishing 4 credits**

A comprehensive course in the use of desktop publishing for microcomputers. The concepts, features, and commands of desktop publishing are applied to a variety of applications. Programming concepts will be introduced. Classes are conducted in a hands-on-lecture/laboratory where a microcomputer is available for each student. The content of this course will continually change to keep pace with current technology. CGS 1060 or computer experience is required. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab.)

CGS2091**Professional Ethics and Social Issues in CS 4 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. Laboratory fee. (3 hr. lecture; 1 hr. lab.)

CGS2108**Advanced Desktop Applications 4 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: CGS1060. A.S. degree credit only. Laboratory fee. (3 hr. lecture; 2 hr. lab.)

CGS2172**Implementing a Commerce-Enabled Website 4 credits**

Students will learn to implement, support, maintain, optimize and troubleshoot websites using Microsoft Site Server, focusing particularly on electronic commerce (e-commerce) sites. Prerequisite: COP2823 or CTS2463. Recommended Preparation: CGS2547. A.S. degree credit only. Laboratory fee. (3 hr. lecture; 2 hr. lab.)

CIS1000**Introduction to Data Processing 4 credits**

An introductory course for data processing majors covering the fundamentals of data processing and computer programming. Elementary programming applications are included. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab.)

CIS1321**Introduction to Systems Analysis and Design 4 credits**

This course introduces computer science

and non-major 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. Laboratory fee. (3 hr. lecture; 2 hr. lab.)

CIS1949**Co-op Work Experience 1: CIS 1 - 4 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. A.S. degree credit only. (1 - 4 hr. lecture)

CIS2322**Systems Analysis and Design Implementation 4 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. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab.)

CIS2342**Business Intelligence: Integration Services & Reporting 4 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: CGS1546 or CGS2547. Laboratory fee. A.S. degree credit only; (3 hr. lecture; 2 hr. lab.)

CIS2949**Co-op Work Experience 2: CIS 3 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 1. 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 reg-

istration approval. A.S. degree credit only. (3 hr. lecture)

CNT1512

Introduction to

Wireless Networking

4 credits

This course provides the student with a complete foundation of knowledge for entering into or advancing in the wireless networking industry. Topics include: an introduction to wireless LANs; RF theory; spread spectrum technologies; wireless LAN infrastructure devices; antennas and accessories; wireless LAN standards; and wireless LAN organizations to link budget math, troubleshooting, and performing a site survey. This course delivers hands-on training that benefits the novice as well as the experienced network professional. Prerequisites: CGS1060 and CTS1134. Laboratory fee. (3 hr. lecture; 2 hr. lab.)

COP1332

Introduction to

Visual Basic Programming

4 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: CGS1060. Knowledge of high school algebra is recommended. Laboratory fee. (3 hr. lecture; 2 hr. lab.)

COP1334

Introduction to C++

Programming

4 credits

This is an introductory course in C++ programming recommended for Computer Science and Computer Information Systems majors. Students will learn the syntax and rules of the C++ language, including how to code, compile, and execute programs. Students study program design, structured modular programming arrays, report generation, and file processing. Pre/Corequisite: CGS1060. Laboratory fee. (3 hr. lecture; 2 hr. lab.)

COP2270

"C" for Engineers

4 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: CGS1060 or knowledge of computer skills. Laboratory fee. (3 hr. lecture; 2 hr. lab.)

COP2333

Advanced Programming

Concepts using Visual Basic

4 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. Laboratory fee. (3 hr. lecture; 2 hr. lab.)

COP2335

Object Oriented

Programming using C++

4 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. Laboratory fee. (3 hr. lecture; 2 hr. lab.)

COP2700

Database Application

Programming

4 credits

Current database management software is featured. Emphasis is on analysis, design, and programming of systems rather than data structures. This course is designed for individuals interested in developing programmed applications. Prerequisites: Completion of all basic skills or acceptable scores on the Placement Test, CGS 1060, (Introduction to microcomputer Usage), and proficiency in any programming language. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab.)

COP2701

Advanced Database

Programming

4 credits

Current database management is featured. Emphasis is on analysis, design, programming real world applications and integration of database and the internet applications. This course is designed for individuals interested in developing programmed database applications. Prerequisite: CTS 2433. A.S. degree credit only. (3 hr. lecture; 2 hr. lab.)

COP2800

Java Programming

4 credits

This is an intermediate level programming course using the Java computer language, recommended for Computer Science and Computer Information Systems majors. Students will learn to code, compile, and execute programs while learning advanced programming concepts and object oriented programming and design concepts and principles. Prerequisite: COP 1334. Laboratory fee. (3 hr. lecture; 2 hr. lab.)

COP2805

Advanced Java Programming

4 credits

This is an advanced level programming course using Java. Students will be required to code. Compile and execute programs. Topics include applets, exception handling, multimedia mechanisms, multithreading and networking capabilities, and advanced Internet tech-

nologies in multi-tiered Web environments accessing databases. Prerequisites: COP 2800. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab.)

COP2812

Extensible Markup Language

Programming (XML)

4 credits

The prospective e-commerce professional will learn the skills necessary to create applications using XML technologies. Building, maintaining, and implementing these applications allow the student an opportunity to create business-to-business web applications that solve everyday business problems. Prerequisites: CGS 1060, COP 2822, and COP 2800. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab.)

COP2822

Web Page Design

and Programming

4 credits

This is an intermediate level programming course that prepares students for web development. Students will learn client-side programming skills and technologies, such as JavaScript, XML, and Ajax. Prerequisite: COP1332, or COP1334 and CTS1800. Special fee. A.S. credit only; (3 hr. lecture; 2 hr. lab.)

COP2823

ASP/Script Language

Programming

4 credits

This course will teach Microsoft Visual Basic programmers and beginning Web developers the fundamentals of Web application development by using Microsoft ASP.NET and Microsoft Visual Basic.NET. Students will learn how to use the Microsoft Visual Studio .NET environment and the Microsoft .Net platform to create an ASP.NET Web application that delivers dynamic content to a website. Prerequisites: CGS 1060 and COP 1332 or COP 1334. Laboratory fee. (3 hr. lecture; 2 hr. lab.)

COP2825

Implementing an

Internet Server

4 credits

Students will learn to implement, support, and maintain Internet servers. Both Microsoft and Apache servers are covered. Recommended preparation: Prior knowledge of operating systems and managing network resources is recommended. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab.)

COP2842

Developing Websites

using PHP/MYSQL

4 credits

This is an intermediate course for students preparing to become web developers. Students will learn to develop dynamic, interactive websites using PHP5, an open source programming language and MYSQL database. Prerequisites: COP 1332 or COP 1334. Laboratory fee; (3 hr. lecture; 2 hr. lab.)

COP2843

Implementing Open-Source

Databases

4 credits

This course is an introduction to open-source

database programming for students majoring in database and Internet technologies. Students will learn to use and implement MYSQL for the purpose of storing and retrieving information from the MYSQL database. In conjunction with knowledge of open-source technologies such as Linux, Apache and PHP (LAMP), students will develop highly available, dynamic, Web-based applications. Prerequisite: CGS 1060. Laboratory fee. A. S. degree credit only. (3 hr. lecture; 2 hr. lab.)

CTS1101
Introduction to Windows 2 credits

Introduction to the Microsoft windows(TM) graphical user interface. Emphasis is on windowing concepts, as well as learning how to run application programs and windows utilities, manage files, and transfer data. Students are shown how to combine different applications to use the full power of a desktop environment. Classes are conducted in a hands-on classroom, with lectures and lab combined. Lab fee; A.S degree credit only; (1 hr. lecture; 2 hr. lab.)

CTS1111
Linux + 4 credits

This course is designed to help students prepare for the Comp TIA 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. Special fee. A. S. degree credit only. (3 hr. lecture; 2 hr. lab.)

CTS1120
Fundamentals of Networking Security 4 credits

This course provides the student with a complete foundation of knowledge for entering into or advancing in the information technology security field; topics include: an introduction to general security concepts; communication security; infrastructure security; basic cryptography; operational and organizational security. Including topics from troubleshooting to performing a site survey, this course delivers hands on training that benefits the novice as well as the experienced network professional. Prerequisites: CTS 2306; Laboratory fee. (3 hr. lecture; 2 hr. lab.)

CTS1131
A+ Computer Essentials & Support 4 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 operating systems, laptops, portable devices, printers, scanners, network devices and security measures; and how to provide professional IT support and customer service. Prerequisite: CGS 1560. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab.)

CTS1134
Networking Technologies 4 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. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab.)

CTS1328
Supporting Microsoft Clients 4 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: CGS1060 recommended or equivalent experience, knowledge or skills. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab.)

CTS1437
Microsoft SQL Administration 4 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 or CGS1541. A.S. degree credit only. Laboratory fee. (3 hr. lecture; 2 hr. lab.)

CTS1650
Networking Fundamentals 4 credits

This is the first course of the four-course Cisco curriculum that will prepare students for certification as a Cisco Certified Network Analyst (CCNA). Students will learn networking concepts, practices, terminology, protocols, the OSI reference model, cabling, cabling tools, routers, router programming, LAN/WAN topologies, IP addressing, and network standards. Prerequisite: Knowledge of computer operating systems and hardware is required. Laboratory fee. A.S. degree credit only. (3 hr. lecture, 2 hr. lab.)

CTS1651
Routing Protocols and Concepts 4 credits

This is the second course of the four-course Cisco curriculum that will prepare the student for certification as a Cisco Certified Network Analyst (CCNA). Students will learn the architecture components and operation of routers, network routing protocols and concepts, static and dynamic routing, router configuration and troubleshooting, and the interconnections of networks. Prerequisite:

CTS1650. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab.)

CTS1800
Introduction to Web Page Development 4 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. Laboratory fee. A.S. degree credit only. (3 hr. lecture)

CTS1801
Multimedia and Animation 4 credits

This course is for students who want to learn how to use and produce multimedia. Students will learn how to produce multimedia presentations and how to use authoring systems. Prerequisites: CGS1060. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab.)

CTS2102
Operating System Principles 4 credits

Students will become familiar with operating system functions and commands. Windows and UNIX operating systems are covered. Topics include file management, backup and recovery procedures, multiuser functionality, communications and establishing interfaces. Prerequisites: CGS 1060, COP 1332, and COP1334. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab.)

CTS2153
Supporting Windows Users & Applications 4 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. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab.)

CTS2154
IT Help Desk Support 4 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. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab.)

CTS2215**PowerPoint/Outlook 4 credits**

The student will be provided the opportunity to develop the skills necessary to prepare for the core level Microsoft Office User Specialist (MOUS) Certification exam in MS PowerPoint and MS Outlook. Prerequisite: CGS 1060. Laboratory fee. A.S. degree credit only; (3 hr. lecture; 2 hr. lab.)

CTS2300**Planning Network Infrastructure 4 credits**

This course provides the information and skills necessary to successfully plan and maintain a Microsoft server operating system network infrastructure. The course focuses on: planning TCP/IP physical and logical network; planning and trouble shooting a routine strategy; planning a Dynamic Host Configuration Protocol (DHCP) strategy; optimizing and troubleshooting DNS; planning and optimizing WINS; planning, optimizing, and troubleshooting IPSEC network access; and troubleshooting network access. Prerequisite: CTS 2303. Laboratory fee. (3 hr. lecture; 2 hr. lab.)

CTS2302**Designing Network Infrastructure and Directory Services 4 credits**

This course provides the information and skills necessary to successfully design a Microsoft server Active Directory and network infrastructure. The course focuses on the Microsoft server directory service environment, including meeting the needs of an organization for their: forest and domain infrastructure: site infrastructure; Group Policy structure; administrative structure; physical network; DHCP; network connectivity; name resolution strategy; and network access infrastructure strategies. Prerequisite: CTS 2303. Laboratory fee. (3 hr. lecture; 2 hr. lab.)

CTS2303**Implementing Directory Services 4 credits**

This course is intended for students preparing for IT careers as network support specialists and server administrators, as well as candidates for industry certification. Students will learn the skills to successfully configure Active Directory Domain Services in a distributed environment. Prerequisite: CET1600 or CTS1134 (recommended) or equivalent experience, knowledge or skills. Laboratory fee. A.S. degree only; (3 hr. lecture; 2 hr. lab.)

CTS2306**Implementing a Networking Infrastructure 4 credits**

This course is intended for students preparing for IT careers as network support specialists, server, database or website administrators, as well as candidates for industry certification.

Students will learn how to install, configure, monitor, and maintain Windows-based networking services. Prerequisite: CET1600 or CTS1134 (recommended) or equivalent experience, knowledge or skills. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab.)

CTS2310**Design, Implement, Manage Network Security 4 credits**

This course provides the information and skills necessary to design, implement, manage, maintain, and troubleshoot security in a Microsoft Windows Server network infrastructure. It is intended for students preparing to be IT systems engineers and security specialists who are responsible for implementing and managing security policies and procedures for an organization. Prepares students for the MCSE Security specialization. Pre/Corequisite: CTS 2306; may be waived for individuals with current MCSA certification or equivalent experience. Laboratory fee. (3 hr. lecture; 2 hr. lab.)

CTS2320**Managing a Windows Networking Environment 4 credits**

This course will provide the knowledge required by System and Network Administrators who implement, manage and troubleshoot existing network and server environments based on the Microsoft Windows network operating system. This course focuses on performing desktop and server installation and configuration tasks, how to perform troubleshooting tasks, hardware and software installations, configurations and upgrades, and perform network and system operation tasks. Typical network services and resources that would be managed include messaging, database, file and print servers, proxy server of firewall, Internet and intranet, remote access, and client computer management. Prerequisite: CTS 2306. Laboratory fee. (3 hr. lecture; 2 hr. lab.)

CTS2334**Planning and Administering Windows Servers 4 credits**

This course is intended for students preparing for IT careers as network support specialists and server administrators, as well as candidates for industry certification. Students will learn how to perform various tasks pertaining to implementing, monitoring, and maintaining Windows Servers. Prerequisites: CTS2303 or CTS2306. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab.)

CTS2404**Distributed Applications with Visual Basic 4 credits**

This course will teach Microsoft Visual Basic programmers how to build N-tier client/server solutions for Microsoft Windows using Windows DNA and Com+ technologies. It includes developing distributed applications that conform to the Microsoft Solution Framework, and is designed to teach Visual Basic programmers, who currently develop desktop applications, how to build n-tier, cli-

ent/server solutions. Also it will prepare students to take Microsoft's Certification Exam for Distributed Applications with Microsoft Visual Basic; it is a required course for MCSD and elective for MCDDBA. Prerequisites: COP 2333. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab.)

CTS2433**Microsoft SQL Implementation 4 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. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab.)

CTS2440**Introduction to Oracle: SQL and PL/SQL 4 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. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab.)

CTS2441**Introduction to Oracle Database Administration 4 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. Laboratory fee. A.S. degree only; (3 hr. lecture; 2 hr. lab.)

CTS2442**Intermediate Oracle Database Administration 4 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 Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab.)

CTS2444**Oracle Database Performance Tuning 4 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. Pre-requisite: CTS2442. A.S. degree credit only. Laboratory fee. (3 hr. lecture; 2 hr. lab.)

CTS2445**Programming PL/SQL in Oracle****4 credits**

This course is designed for students preparing to become database developers and prepares students for the Oracle PL/SQL and Oracle Forms Developer Certification exam. Students will learn to create PL/SQL blocks of application code, functions and packages. Students will also learn how to create and manage PL/SQL program units and database triggers. A.S. degree only. Laboratory fee. Prerequisite: CTS2440; (3 hr. lecture; 2 hr. lab.)

CTS2446**Introduction to Oracle Database Applications****4 credits**

This course is designed for students preparing to become database developers and prepares students for the Oracle PL/SQL and Oracle Forms Developer Certifications. Students will learn how to develop applications for the internet, including forms that interact with Oracle databases, using an application development tool. Students will also learn how to customize forms with user input items such as check boxes, list items, and radio groups. A.S. degree only. Laboratory fee. Prerequisite: CTS2445; (3 hr. lecture; 2 hr. lab.)

CTS2450**Business Intelligence: Analysis Services and Data Mining****4 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: CGS1546 or CGS2547 or CGS2342. A.S. degree only. Laboratory fee. (3 hr. lecture; 2 hr. lab.)

CTS2463**C# Web Application Development****4 credits**

This course is designed to provide A.S. 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. Laboratory fee. A.S. degree credit only; (3 hr. lecture; 2 hr. lab.)

CTS2652**LAN Switching and Wireless Networking****4 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. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab.)

CTS2653**Accessing the WAN****4 credits**

This is the fourth and final course of the Cisco curriculum that will prepare the student for certification as a Cisco Certified Network Associate (CCNA). Students will learn how to configure wide area networks (WANs), implement IP addressing services, configure Access Control Lists, establish and enforce security policies, and troubleshoot networks. Prerequisite: CTS2652. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab.)

CTS2823**Developing Internet Applications Using Apache****4 credits**

This course is designed for students who are preparing to become Web developers. Students will learn to build dynamic, Web-based applications using open-source technologies such as Linux, Apache, MySQL, and PHP (LAMP). Prerequisites: CTS 1111, COP 2842, COP 2843. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab.)

Criminal Justice & Related Technologies

CCJ1010**Introduction to Criminology****3 credits**

Theories and causes of criminal and delinquent behavior, including its variations, ramifications, explanations and measures of prevention, control and treatment. (3 hr. lecture)

CCJ1020**Introduction to Criminal Justice****3 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. (3 hr. lecture)

CCJ1191**Human Behavior in Criminal Justice****3 credits**

Human behavior and how it relates to the duties and responsibilities of the criminal justice practitioner. (3 hr. lecture)

CCJ1193**Community/Human Relations for Criminal Justice Practitioners****3 credits**

Emphasizes techniques used to increase public awareness and to improve the human relations skills of correctional and law enforcement officers. Effort is made to develop effective interpersonal communication skills for dealing with individuals and groups encountered by criminal justice practitioners in the work environment. (3 hr. lecture)

CCJ1949**Co-op Work Experience 1: CCJ****3 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. (3 hr. lecture)

CCJ2053**Criminal Justice Ethics and Professionalism****3 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. (3 hr. lecture)

CCJ2230**Criminal Procedure and Evidence 2****3 credits**

Criminal Procedure and Evidence as they relate to the law enforcement profession will be examined. Constitutional provisions applicable to arrest, search and seizure, and interrogation will be covered. In addition, evidentiary principles will be taught emphasizing those provisions applicable to law enforcement. (3 hr. lecture)

CCJ2358**Criminal Justice Reporting****3 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 (3 hr. lecture)

CCJ2650**Narcotics and Dangerous Substances****3 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. (3 hr. lecture)

CCJ2940**Administration of Justice****Field Service Program 3 credits**

Provides supervised observation and participation in agencies involved in the administration of justice. This course bridges the gap between theory and practice. Prerequisite: to be arranged by/with the instructor. (3 hr. lecture; plus field experience)

CCJ2949**Co-op Work Experience 2: CCJ 3 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; (3 hr. lecture)

CCJ3032**Crime and the Media 3 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. Prerequisite: SYG 2000; (3 hr. lecture)

CCJ3663**Female Crime and Delinquency 3 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. Prerequisites: CCJ 1191, 2500; (3 hr. lecture)

CCJ3666**Victimology 3 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. Prerequisite: CCJ 1191; (3 hr. lecture)

CCJ3700**Methods of Research in Criminal Justice****3 credits**

Evaluates the application of research methodologies as applied to the study of Public Safety Management. Prerequisite: STA 2023; (3 hr. lecture)

CCJ4054**Ethics in the Criminal Justice System****3 credits**

An in depth study of moral, ethical, legal, and professional issues and dilemmas facing individuals and organizations within the Criminal Justice systems. Prerequisite: PHI 2604; (3 hr. lecture)

CCJ4450**Criminal Justice****Administration 3 credits**

An analysis of leadership styles, management principles, supervisory techniques, policies and procedures within Law Enforcement agencies. Prerequisite: CCJ 1020; (3 hr. lecture)

CCJ4641**Organized Crime 3 credits**

An analysis of organized crime in today's society, as well as, past, present, and future perspectives of the topic; (3 hr. lecture)

CCJ4651**Drugs and Crime 3 credits**

An analysis of the interrelationship among drug usage, crime and the criminal justice system. Prerequisite: CCJ 2650; (3 hr. lecture)

CCJ4660**Crime, Violence, and Schools 3 credits**

An examination of comprehensive and proven theoretical models of explaining, predicting, and preventing school-based violence. Prerequisite: CCJ 1191, CJJ 2002. (3 hr. lecture)

CCJ4678**Race, Gender, Ethnicity & Crime 3 credits**

Focuses on the challenges and controversies of managing and treating special offender populations such as juvenile, elderly, disabled, mentally ill, pregnant inmates, etc. Prerequisite: CCJ 1191; (3 hr. lecture)

CCJ4941**Internship Program - Field Placement 15 credits**

Students will gain field placement experience in a local, state, federal, or private sector public safety agency. (240 hr. internship)

CCJ4942**Internship Program - Basic Police Academy 15 credits**

Students will participate in the FDLE state-mandated certification training program in law enforcement. (240 hr. internship)

CCJ4943**Internship Program - Basic Corrections Academy 15 credits**

Students will participate in the FDLE State-Mandated Certification Training Program in Corrections. (240 hr. Internship)

CJC1000**Introduction to Corrections 3 credits**

A comprehensive view of the historical and philosophical treatment programs and developments in the field of juvenile and adult corrections. Emphasis is on understanding the offender in the correctional system; an examination of the correctional client, the non-institutional correctional systems, agencies and recidivism; (3 hr. lecture)

CJC1005**Operations & Procedures in Correctional Institutions 3 credits**

A basic survey of the operational routines that

prevail in correctional facilities and the procedures used by officers in upholding these routines. The focus is on the preliminary knowledge needed by correctional officers before they can acquire the skills and techniques to perform job-related tasks. A.S. degree credit only; (3 hr. lecture)

CJC1162**Parole and Probation 3 credits**

The history, current practices and the consideration of philosophical concepts in the areas of probation and parole; (3 hr. lecture)

CJC2350**Correctional Operations 3 credits**

The operation of correctional facilities is studied including the intake of new inmates, all aspects of their daily care, and institutional procedures. This course is limited to School of Justice students only; (3 hr. lecture)

CJC2351**Interpersonal Skills for Correctional Officers 3 credits**

The interpersonal skills needed by officers to understand the incarcerated society is explored, with emphasis on supervision methods. Inmate adjustment and the various segments of inmate society are studied. This course is limited to School of Justice students only; (3 hr. lecture)

CJC4163**Advanced Probation & Parole 3 credits**

A study of the process in which a convicted person can be released into society by means of probation or parole. Prerequisite: CJC 1162; (3 hr. lecture)

CJC4310**Correctional Theory 3 credits**

An analysis of corrections relative to punishment and rehabilitation strategies utilized at penal institutions throughout the United States. Prerequisite: CJC 1000; (3 hr. lecture)

CJC4311**Contemporary Issues and Trends in Corrections 3 credits**

Focuses on and analyzes of major changes in incarceration philosophies and policies, prison populations, and operational costs. Prerequisite: CJC 1000; (3 hr. lecture)

CJC4351**Correctional Operations 3 credits**

Focuses on challenges the correctional staff faces in their critical role in the day-to-day operations of a correctional facility. Prerequisite: CJC 1000; (3 hr. lecture)

CJD2705**Law Enforcement Equipment and Technology 3 credits**

Training of officers in the handling, care and use of firearms and other technical equipment used in the law enforcement profession. Qualification, where appropriate, is required prior to completion of the course. For institute of Criminal Justice students only; (3 hr. lecture; variable lab. hrs.)

CJE1003**Career Exploration
in Criminal Justice****1-3 credits**

To provide an overview of the various careers in criminal justice, and to help students define their career interests and physical abilities. A.S. degree credit only; (1-3 hr. lecture)

CJE1567**First Responder for
Public Safety Officers****3 credits**

Provides training in emergency medical care for public safety officers who are apt to be the first persons responding to an accident or crime of violence. The focus is on the specific emergency situations a public safety officer is likely to confront, and the role of the public safety officer within the community's emergency medical service system. (3 hr. lecture)

CJE1640**Crime Scene Technology 1****3 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 examining 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; (3 hr. lecture)

CJE1642**Crime Scene Technology 2****3 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 1110; (3 hr. lecture)

CJE1673**Crime Scene Photography 1****3 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; (3 hr. lecture)

CJE1772**Crime Scene Photography 2****3 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 1220; (3 hr. lecture)

CJE1801**Defensive Tactics Skills for****Criminal Justice Practitioners****3 credits**

Training of officers in the rationale and methodology of taking people into custody, searching subjects, using restraint devices, and

utilizing the proper techniques and amount of force. For Institute of Criminal Justice students only; (1 hr. lecture; 4 hr. lab.)

CJE2302**Management of****Police Functions****1-3 credits**

The administration of line activities of law enforcement agencies, with emphasis on the patrol functions and the prevention of crime, including traffic, investigations, juvenile, vice, and other specialized units; (1-3 hr. lecture)

CJE2304**Police-Correction Supervision****3 credits**

An introduction to basic theory pertaining to supervisory responsibilities and assignments. Practical application will be demonstrated through the case-study method; (3 hr. lecture)

CJE2400**Criminal Justice****and the Community****1-3 credits**

A general orientation to the concepts of criminal justice and community relations. Group relations for criminal justice personnel. A survey of the field of criminal justice and community relations, emphasizing the role and influence in the management and resolution of conflict; (1-3 hr. lecture)

CJE2452**Criminal Justice****Communications****3 credits**

The report writing process from the interview, statement taking and note taking, through the final report product is covered, with practical exercises included. The differences between interviewing and interrogating are explored. Interpersonal communication skills are covered, along with radio and telephone procedures. Objectives are addressed as specified by the Criminal Justice Standards and Training Commission. Prerequisite: ENC 1101; (3 hr. lecture)

CJE2552**Law Enforcement Traffic****3 credits**

Studies traffic enforcement and control with the inclusion of DUI offenses and enforcement. This course is limited to School of Justice students only; (3 hr. lecture)

CJE2590**Law Enforcement Patrol****3 credits**

Theories, history, and development of police patrol are explored. Also addressed are the skills and techniques that are needed by officers on a daily basis to perform patrol tactics and respond to various types of calls. Methods of approach to various high-risk situations are explored, with practical exercises included. Unusual occurrence events, including firefighting and crowd control, are also addressed. This course is limited to School of Justice students only; (3 hr. lecture)

CJE2600**Criminal Investigation****3 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; (3 hr. lecture)

CJE2601**Law Enforcement****Investigations for Police****Officers****3 credits**

Fundamentals of criminal investigation, theory and practice, including crime scene search, preservation, collection and transportation of physical evidence are topics included in this course. Techniques are developed from the initial observation methods through the processing of the crime scene and case preparation. Florida's computer network is studied as an information source. This course is limited to School of Justice Basic Law Enforcement students only; (3 hr. lecture)

CJE2644**Crime Scene Safety****3 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; (3 hr. lecture)

CJE2671**Basic Fingerprinting****3 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; (3 hr. lecture)

CJE2672**Fingerprint Development****3 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: CJT 2240; (3 hr. lecture)

CJE3110**Law Enforcement Systems****3 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. Prerequisite: CCJ 1020; (3 hr. lecture)

CJE3115**Police and Society****3 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; (3 hr. lecture)

CJE3444

Crime Prevention 3 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. Prerequisite: SPC 1017; (3 hr. lecture)

CJE3574

Interpersonal Communications for Law Enforcement 3 credits

An examination of the communication process and how it affects the relationship between the police and the people they serve. Prerequisite: CCJ 1191, SPC 1017; (3 hr. lecture)

CJE4310

Police Administration 3 credits

An analysis of corrections relative to punishment and rehabilitation strategies utilized at penal institutions throughout the United States. Prerequisite: CJC 1000. (3 hr. lecture)

CJE4615

Advanced Criminal Investigations 3 credits

The understanding, interpretation, and application of criminal investigative procedures in the U.S., based upon constitutional issues and legal precedent. Prerequisite: CJE 2600. (3 hr. lecture)

CJE4647

Advanced Crime Scene Technology 3 credits

An application of crime scene investigation techniques to include recording, preserving, and documenting a crime scene. Prerequisite: CJE 2600. (3 hr. lecture)

CJE4648

Crime Scene Safety 3 credits

A study of how to properly handle crime scenes and hazardous crime scenes relative to various hazardous materials, to include chemical and biological. (3 hr. lecture)

CJE4650

Advanced Crime Scene Investigations 3 credits

A study of advanced search techniques, crime scenes reconstruction, computer sketching, laser mapping, DNA evidence, trajectory, and blood spatter evidence. Corequisite: CJE 4675. (3 hr. lecture)

CJE4668

Computer Crime 3 credits

Synthesizes knowledge of crime elements, legal issues, investigative techniques, and computer skills used in the prevention and investigation of computer-generated crime. Prerequisite: CGS 1060. (3 hr. lecture)

CJE4675

Modern Fingerprint Technology 3 credits

A study of the detection, preservation, and

removal of fingerprint evidence pertaining to latent, patent, and plastic prints. Prerequisite: CJE 2600; Corequisite: CJE 4641. (3 hr. lecture)

CJJ2002

Juvenile Delinquency 3 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. (3 hr. lecture)

CJL1100

Criminal Law 3 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. (3 hr. lecture)

CJL2062

Constitutional Law and Legal Procedure or Evidence 3 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. (3 hr. lecture)

CJL2080

Comparative Legal Systems 3 credits

An introduction and comparative study of English and American systems of criminal justice, with particular reference to the protection of the liberty of the individual. Overview of legal systems of other nations, selected to afford a comparative perspective on the Anglo-American tradition. Offered through Overseas Study Program. (3 hr. lecture)

CJL2100

Criminal Procedure & Evidence 1 3 credits

This course explores the history, principles and applications of criminal law procedures for criminal justice officers. This course is limited to the school of justice students only. (3 hr. lecture)

CJL2105

Legal 3 for Law Enforcement Officers 2 credits

This legal segment of study includes traffic and driver's licensing laws, as well as legal considerations of officer vehicle operation. Various criminal laws and their elements are studied with an emphasis placed on those laws specific to police application. This course is limited to School of Justice students. (2 hr. lecture)

CJL2130

Criminal Procedure and Evidence 3 credits

Criminal Procedure and Evidence as they relate to the law enforcement profession will be examined. Constitutional provisions applicable to arrest, search, seizure, and interrogation will be covered. In addition, evidentiary principles will be taught emphasizing those

provisions applicable to law enforcement. (3 hr. lecture)

CJL3044

Civil Law 3 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. Prerequisite: CJL 1100. (3 hr. lecture)

CJL3564

Judicial Policy Making 3 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. Prerequisite: CCJ1010. (3 hr. lecture)

CJL4064

Corrections Administration & Law 3 credits

An overall view of the nature, philosophy, operations and goals of secure and non-secure correctional institutions and programs. Prerequisite: CJC 1000. (3 hr. lecture)

CJL4133

Criminal Evidence 3 credits

A study of evidentiary principles and rules of evidence, and their application in a courtroom setting. Prerequisite CJL 1100. (3 hr. lecture)

CJL4170

Corrections Legal System 3 credits

An analysis of contemporary legal decisions regarding the rights and responsibilities of prisoners, correctional administrators, and correctional officers. Prerequisite CJL1100. (3 hr. lecture)

CJL4514

Criminal Sentencing 3 credits

An examination of the various pre-trial and post-trial community based treatment and supervision programs. Prerequisite: CJC 1162. (3 hr. lecture)

CJT2113

Courtroom Presentation 3 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. (3 hr. lecture)

DSC1006

Introduction to Homeland Security 3 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. (3 hr. lecture)

DSC2242

Transportation and Border Security 3 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. (3 hr. lecture)

DSC2590

Intelligence Analysis and Security Management 3 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. (3 hr. lecture)

DSC4012

Terrorism 3 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. (3 hr. lecture)

DSC4014

Domestic & International Terrorism 3 credits
A study of the causes and effects of domestic and international terrorist events. Prerequisite: DSC4012. (3 hr. lecture)

DSC4214

Catastrophic Event Response Management 3 credits
An analysis and evaluation of domestic and international terrorism, the events, the responses and the outcomes. (3 hr. lecture)

DSC4215

Emergency Planning & Security Measures 3 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. Corequisite: DSC 4214. (3 hr. lecture)

FES4003

Public Policy in Emergency Management 3 credits
An exploration of public policy used in emergency management, including how policy is made and conveyed. (3 hr. lecture)

FES4823

Integrated Emergency Management Planning Systems 3 credits
An analysis of technology applications and its role in emergency planning, responses, recovery, and mitigation. Prerequisite: CGS 1060. (3 hr. lecture)

SCC4111

Special Security Problems 3 credits
A study of executive level security measures pertaining to dignitary protection, client confidentiality and legal issues. (3 hr. lecture)

SCC4210

Private Investigations 3 credits
An analysis and interpretation of the role of the private investigator within the legal environment. Prerequisite: CJE 4615. (3 hr. lecture)

SCC4311

Security Administration 3 credits
An analysis and evaluation of leadership styles best suited for success in the field of security. Prerequisite: CCJ 1020. (3 hr. lecture)

SCC4410

Risk Management 3 credits
A study of risk management theories as it pertains to insurance coverage, facility assessment, as well as employee and pre-employment background investigations. Corequisite: SCC 4311. (3 hr. lecture)

SCC4612

Hospital Security Management 3 credits
An analysis of hospital organizational structure, environment, personnel, visitors, and the requirements of regulatory agencies within the security area. (3 hr. lecture)

Dance

DAA1100

Modern Dance 1 2-3 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. (1 hr. lecture; 2-4 hr. lab.)

DAA1101

Intermediate Modern Dance 2-3 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 1100 or permission of the department. (1 hr. lecture; 2-4 hr. lab.)

DAA1104

Modern 1 2-3 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. (1-hr. lecture; 2-4 hr. lab.)

DAA1105

Intermediate Modern 2-3 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. (1-hr. lecture; 2-4 hr. lab.)

DAA1200

Ballet Dance 1 2-3 credits
Designed to provide experiences relative to the various aspects of ballet techniques and terminology at a primary level. Special fee. (1-hr. lecture; 2-4 hr. lab.)

DAA1201

Intermediate Ballet Dance 2-3 credits
The continued development of various aspects of ballet technique terminology. Prerequisite: DAA 1200 or permission of the department. May be repeated for credit. (1-hr. lecture; 2-4 hr. lab.)

DAA1204

Ballet 1 2-3 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. (1-hr. lecture; 2-4 hr. lab.)

DAA1205

Intermediate Ballet 2-3 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. Special fee. Dance major only. (1 hr. lecture; 2-4 hr. lab.)

DAA1290

Ballet for the Theater 1 1-3 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. (2-6 hr. lab.)

DAA1291

Ballet for the Theater 2 1-3 credits
A continuation of the systematic training of the body through a progressive study of the traditional classic ballet vocabulary. More barre exercises and simple adagio jumps and turns will further the concentration on flexibility and coordination. Prerequisite: DAA 1290. (2-6 hr. lab.)

DAA1330

Afro-Caribbean Dance 1-3 credits
Designed for those students wishing to learn the dance skills and techniques of the dance from Africa and the Caribbean. Special fee. (1 hr. lecture; 2-4 hr. lab.)

DAA1500

Jazz Dance Technical 1 2-3 credits
Designed to provide experiences in the styles of theatrical jazz dance at a primary level. (1 hr. lecture; 2-4 hr. lab.)

DAA1504**Jazz Dance 1** 2-3 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. (1 hr. lecture; 2-4 hr. lab.)

DAA1505**Jazz Dance 2** 2-3 credits

This course continues the students introduction to the vocabulary technique of jazz dance, incorporating a fusion of styles from popular dance, Afro-Caribbean, and traditional and contemporary modern Jazz choreographers. For majors only. Audition required. (1 hr. lecture; 2-4 hr. lab.)

DAA1520**Tap Dance** 2-3 credits

Designed for students interested in learning the skills and techniques of tap dancing. (1 hr. lecture; 2-4 hr. lab.)

DAA1680**Repertory 1** 2-3 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. (1-hr. lecture; 2-4 hr. lab.)

DAA2103**Advanced Modern Dance 2** 2-3 credits

Further development of modern dance techniques, creative aspects and theoretical concepts based on Graham, Cunningham, and Limon technique. Prerequisite: DAA 2102 or permission of the Department. (1-hr. lecture; 2-4 hr. lab.)

DAA2106**Modern 2** 2-3 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. (1 hr. lecture; 2-4 hr. lab.)

DAA2107**Advanced Modern 2** 2-3 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. (1-hr. lecture; 2-4 hr. lab.)

DAA2202**Ballet Dance 2** 2-3 credits

The continued development of various aspects of ballet technique and terminology. Prerequisite: DAA1201 or permission of the department. (1-hr. lecture; 2-4 hr. lab.)

DAA2203**Advanced Ballet Dance** 2-3 credits

The continued development of various aspects of ballet technique and terminology. Prerequisite: DAA2202 or permission of the department. May be repeated for credit. (1 hr. lecture; 2-4 hr. lab.)

DAA2206**Ballet 2** 2-3 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. (1-hr. lecture; 2-4 hr. lab.)

DAA2207**Advanced Ballet** 2-3 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. (1-hr. lecture; 2-4 hr. lab.)

DAA2293**Ballet for the Theater 2** 1-3 credits

Music theatre students will continue receiving an advanced systematic training of the body through a study of the traditional classic ballet vocabulary. Emphasis will continue on longer and more advanced combinations in the center and developing different kinds of movements. (2-6 hr. lab.)

DAA2509**Advanced Jazz Dance** 2-3 credits

Further development of the concepts described in Jazz Dance 1. Jazz Dance 2 includes but is not limited to work in styles of Jack Cole, Gus Giordano and Luigi. Prerequisite: DAA 1501 or permission of department. (1-hr. lecture; 2-4 hr. lecture)

DAA2570**Modern Dance for Theater 1** 1-3 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. (2-6 hr. lab.)

DAA2571**Modern Dance/Jazz for the Theater 2** 1-3 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. (2-6 hr. lab.)

DAA2610**Dance Composition and Improvisation 1** 2-3 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. (1-hr. lecture; 2-4 hr. lab.)

DAA2611**Dance Composition and Improvisation 2** 2-3 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. (1-hr. lecture; 2-4 hr. lab.)

DAA2680**Repertory 1** 2-3 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. (1-hr. lecture; 2-4 hr. lab.)

DAA2681**Repertory 2** 2-3 credits

A continuation of DAA 2680. Prerequisite: DAA 2680. (1-hr. lecture; 2-4 hr. lab.)

DAN1500**Practicum in Dance Production 1** 1 credit

Emphasis is on the production aspects of dance. A log of all dance activity and concerns culminating in studio performance will be required. Admission by audition or department placement. (2-hr. lab.)

DAN2100**Dance Appreciation** 3 credits

This course is a comprehensive overview of dance as an art form, as entertainment, and as a social activity. Specific dance genres such as ballet, modern dance, jazz dance, and world dance forms and the importance of the roles of dancers, choreographers and the audience will also be the focus of this course. This course is designed to give the student a foundation level understanding of dance as an art form and its historical and cultural significance from ancient times into the 21st Century. (3 hr. lecture)

DAN2130**Dance History 1** 3 credits

Study of origins and development of dance as an art form from its inception in primitive cultures to present. Gordon Rule Assigned. (3 hr. lecture)

DAN2131**Dance History 2 3 credits**

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. Concluding with the historical development of dance forms from the late Middle Ages through the Renaissance into the 20th Century. Emphasis is on the dance as a spectator event and a participatory art in relationship to other arts forms. Prerequisite: DAN 2130. (3 hr. lecture)

DAN2430**Laban Movement Analysis 1 3 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. (3 hr. lecture)

DAN2431**Laban Movement Analysis 2 3 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. (3 hr. lecture)

DAN2630**Literature & Materials of Music for Dance 1 2-3 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. (2-3 hr. lecture).

DAN2631**Literature & Materials of Music for Dance 2 2-3 credits**

This course provides an intensive survey of the history of music and music for the dance. Touching on the Greek heritage, important composers of the Renaissance to the common practice period will be covered. Careful study of the 20th-Century masterworks concludes the course. Prerequisite: DAN 2630. (2-3 hr. lecture)

Dental Hygiene

DEH1002**Pre-Clinical Dental Hygiene 2 credits**

Introduction to procedures relevant to the practice of dental hygiene. Corequisites: DEH 1002L, 1130, 1130L (2 hr. lecture)

DEH1002L**Pre-Clinical Dental Hygiene Laboratory 2 credits**

Laboratory for DEH 1002. Corequisite: DEH 1002. Laboratory fee. (6 hr. lab.).

DEH1133**Dental Anatomy, Histology and Physiology 2 credits**

Specific tissues of the oral cavity, head, neck and their embryonic development. The structure, morphology and function of the primary and permanent dentitions is also discussed. Corequisite: DEH 1002L. (2 hr. lecture)

DEH1133L**Dental Anatomy Laboratory 1 credit**

This course is designed to allow the dental hygiene student the opportunity to perform laboratory exercises which will enhance the study of dental anatomy, histology, and embryology. Prerequisite: DEH1133. Laboratory fee. (2 hr. lab.)

DEH1400**General and Oral Pathology 3 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. (3 hr. lecture)

DEH1720**Preventative Dentistry 2 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. (2 hr. lecture)

DEH1800**Dental Hygiene 1 2 credits**

Theory of the removal of hard and soft deposits from the teeth, and other related postoperative and preventive procedures. Prerequisites: DEH 1002, 1002L, 1130; Corequisite: DEH 1800L. (2 hr. lecture)

DEH1800L**Dental Hygiene 1 Clinic 3 credits**

Clinic for DEH 1800. Corequisite: DEH 1800. Laboratory fee. Prerequisite: DEH 1002, 1002L; Corequisite: DEH 1800. Laboratory fee. (9 hr. clinic)

DEH1802L**Dental Hygiene 2 Clinic 1 credit**

Continuation of clinical skills from DEH 1800L. Prerequisites: DEH 1800, 1800L. Laboratory fee. (4 hr. clinic)

DEH1804L**Dental Hygiene 3 Clinic 1 credit**

Designed to further student's knowledge and skills through clinical experiences more difficult than those experienced in DEH 1802L. Prerequisite: DEH1802L. Laboratory fee. (4 hr. clinic)

DEH1811**Professional Issues 2 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, f) communication style. Corequisite: DEH 1800L. (2 hr. lecture)

DEH1840L**Advanced Radiographic & Clinical Assessment Techniques 1 credit**

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. (3 hr. clinic)

DEH1940L**Dental Hygiene 1 Optional Learning Support 1 credit**

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. (3 hr. clinic)

DEH2300**Dental Medicine and Pharmacy 2 credits**

A study of drugs, particularly those which are used in the practice of dentistry, and the interaction of those drugs with other therapeutic agents. Prerequisite: DEH 1400; Corequisite: DEH 1802L. (2 hr. lecture)

DEH2602**Periodontology 1 1 credit**

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. (1 hr. lecture)

DEH2603**Periodontology 2 2 credits**

Etiology, classification, diagnosis, treatment and maintenance of the periodontal patient. Prerequisites: DEH 1400, DEH 1802L. (2 hr. lecture)

DEH2603L**Periodontology 2 Laboratory 1 credit**

Laboratory for DEH 2603. Corequisite: DEH 2603. Prerequisite: DEH 1400; Corequisite: DEH 2603. Laboratory fee. (2 hr. lab.)

DEH2701

Community Dental Health 1 3 credits
Public Health Dentistry and the role of the dental hygienist. Prerequisite: DEH 1804L. (3 hr. lecture)

DEH2702L

Community Dental Health 2 Clinic 2 credits
Provides the student an opportunity for application of the principles of public and community dentistry. Corequisite: DEH 2701. (4 hr. field experience)

DEH2806

Dental Hygiene 4 2 credits
Continuation of dental hygiene theory and practice with special emphasis on gingival curettage and root planning. Prerequisite: DEH 1804L; Corequisite: DEH 2806L. (2 hr. lecture)

DEH2806L

Dental Hygiene 4 Clinic 4 credits
Clinic for DEH 2806. Corequisite: DEH 2806. Laboratory fee. (12 hr. clinic)

DEH2808

Dental Hygiene 5 2 credits
Basic dental and behavioral sciences in the practice of dental hygiene. Special emphasis is given to Florida laws governing that practice. Prerequisites: DEH 2806, 2806L; Corequisite: DEH 2808L. (2 hr. lecture)

DEH2808L

Dental Hygiene 5 Clinic 4 credits
Ongoing experience in total dental hygiene care of the periodontally involved patient. Prerequisites: DEH 2603, 2603L, 2806L; Corequisite: DEH 2808. Laboratory fee. (8 hr. clinic)

DES1200

Dental Radiology 2 credits
Techniques and theory for the safe and effective use of radiographs as related to dentistry. Corequisites: DEH 1002, 1002L, DES 1200L. (2 hr. lecture)

DES1200L

Dental Radiology Laboratory 2 credits
Laboratory for DES 1200. Prerequisite: Acceptance into the Dental Hygiene Program; Corequisite: DES1200. Laboratory fee. (4 hr. lab.)

DES1600

Dental Office Emergency 2 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. (2 hr. lecture)

DES2100

Dental Materials 2 credits
Physical properties of dental materials and their use in the oral cavity. Prerequisite: DEH 2806L, DEH 1133; Corequisite: DES 2100L. (2 hr. lecture)

DES2100L

Dental Materials Laboratory 1 credit
Laboratory for DES 2100. Corequisite: DES 2100. Laboratory fee. (2 hr. lab.)

Economics

ECO1949

Co-op Work Experience 1: ECO 3 credits
This course is 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 Cooperative Education Office to obtain registration approval. (3 hr. lecture)

ECO2013

Principles of Economics (Macro) 3 credits
An overview of the basic economic concepts and institutions. Students will learn the modern national income formation theory, economic fluctuations, money, banking, monetary and fiscal policy, economic stabilization theory and policy, the public sector, theory of economic growth and development comparative economic systems. Gordon Rule Assigned. Special fee. (3 hr. lecture)

ECO2023

Principles of Economics (Micro) 3 credits
The student will learn the 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; international trade; and the economics of change. Special fee. (3 hr. lecture)

ECO2071

Economics Institute Elementary Education 1 3 credits
This course is designed for Elementary Teachers. It provides coverage of major micro-economic concepts and their infusion into the K-12 curriculum through an activity oriented approach. This course will include those economic concepts required in the minimum Student Performance Standards for Social Studies. These concepts will be handled through various methodologies appropriate for the elementary curriculum. The latest economic education materials will be utilized. (3 hr. lecture)

ECO2301

History of Economics Ideas and Their Consequences 3 credits
An interdisciplinary study with major ele-

ments 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. (3hr. lecture)

ECO2949

Co-op Work Experience 2: ECO 3 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. (3 hr. lecture)

Education

EDF1005

Introduction to the Teaching Profession 3 credits
This survey course includes the historical, sociological, and philosophical foundations of education, governance, finance, policies, legal, moral and ethical issues, and the professionalism of teaching. Students will learn the Florida Educator Accomplished Practices, Sunshine State Standards, and the Professional Educator Competencies. Fifteen hours of field-based experience are required. (3 hr. lecture)

EDF2085

Introduction to Diversity 3 credits
This course provides the opportunity to explore issues of diversity, including an understanding of the influence of exceptionalities, culture, family, gender, sexual orientation, socioeconomic status, religion, language of origin, ethnicity, and age upon the educational experience. Students will learn to explore personal attitudes toward diversity and exceptionalities. Students will also learn the Florida Educator Accomplished Practices, Sunshine State Standards, and the Professional Educator Competencies. Fifteen hours of field experience are required. (3 hr. lecture)

EDF2091

Current Issues in Education: The Role of the Paraprofessional 3 credits
This course is designed to present an overview of the changing role of the paraprofessional in education. It provides current information about employment requirements as well as state, district and school policies. It explores the legal and ethical issues related to the paraprofessional involvement with teachers, students, parents, and administration. Students taking this course will become familiar with a variety of documentation used in the classroom environment to record

learner behavior in grades K-12. 10 hours of field experience required. (3 hr. lecture)

**EDF3111
Human Development
and Learning 3 credits**

This course is designed to familiarize the student with principles of learning theories and student development and their application to teaching/learning. Self-concept, motivation, specific language and cultural needs, teaching and learning styles, learning abilities and disabilities, as well as views of intelligence and assessment are examined. Opportunities are provided to analyze teaching/learning situations and develop multiple strategies of instructional delivery. Emphasis is placed on the interaction between the role of the teacher and the needs of students at various developmental ages and stages. A minimum of 10 hours of observation/teaching specifically related to principles of learning and development are required. Prerequisite: DEP2000 or PSY2012. (3 hr. lecture)

**EDF4430
Measurement and
Assessment in Education 3 credits**

This course focuses on the presentation of research based principles of assessment. Students will select specific standards and competencies and develop formative and summative traditional and alternative assessment measurements. Assessment data will be interpreted to improve academic achievement and ensure equity in the application of quantitative and qualitative assessments. (3 hr. lecture)

**EDG2311
Substitute Training 1 credit**

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. (1 hr. lecture)

**EDG2313
General Teaching Skills
for Temporary Instructors 1 credit**

This one credit course is intended to extend the basic knowledge introduced in EDG 2311. Competencies provide best practices in effective teaching strategies. Students will learn the link between instructional objectives-matching strategies and activities-assessing learner competency; Bloom's Taxonomy and higher order thinking skills. The course content has been selected to comply with Florida statute 1012.35. Prerequisite: EDG 2311 and MDCPS Temporary Instructor Certification. (1 hr. lecture)

**EDG2316
Introduction to Teaching
Mathematics and Science
for Paraprofessionals 3 credits**

This course provides an introduction to theo-

retical and practical frameworks for enabling the learning of mathematics and understanding the scientific process using approaches to accommodate diverse student population. The course also presents best practices (methods & strategies) specific to Florida's Sunshine State Standards, subject matter competencies, and pedagogy pertinent to the discipline. A minimum of 10 hours of structured field experience is required. Pre/Corequisites: BSC 1005, MAC 1105. (3 hr. lecture)

**EDG2370
Introduction to Teaching
Reading and Language Arts
for Paraprofessionals 3 credits**

The student will become familiar with a variety of teaching strategies by being involved in discussions, collaborative planning, group projects, roleplaying, and problem solving. In addition, this course will provide current research and practice and demonstrate instruction in preparing learners to develop as readers and writers. The student will also learn a variety of assessment tools that are aligned with the Sunshine State Standards and the Competency Based Curriculum. A minimum of 10 hours of structured field experience is required. (3 hr. lecture)

**EDG2413
Effective Classroom
Management for
Temporary Instructors 1 credit**

This one credit course is intended to extend the basic classroom management techniques for Temporary Instructors introduced in EDG 2311. Students will learn how to implement effective classroom rules, natural and logical consequences, positive and negative reinforces, motivation to learn, teacher "witness," bell-to-bell instruction, effective grouping, and handling of severe discipline problems. Prerequisite: EDG 2311 and MDCPS Temporary Instructor Certification. (1 hr. lecture)

**EDG2704
Teaching the Holocaust 3 credits**

The student will learn the history and issues of the Nazi Holocaust in order to prepare research-based instruction of Florida's mandated curriculum using a variety of resources, media, and literature. This course satisfies Florida Department of Education requirements for teacher recertification. (3 hr. lecture)

**EDG2943
Educational Service
Field Work 1-3 credits**

Designed to give participants various educational experiences in the schools under the supervision of professional personnel. The student is expected to log a total of 40-120 hours doing paraprofessional-type work in the school setting and may work at any level of instruction. May be repeated for credit. (1-3 hr. lecture)

**EDG3321
General Teaching Skills 3 credits**

This course emphasizes the learning of human development theories, learning theories and research based pedagogy as they apply to the teaching and learning process. Students will apply and incorporate principles and skills of effective teaching pedagogy through a variety of instructional activities which stimulate the actual teaching process. Prerequisites: EDF 1005, EDF 2085, EEX2000, EME 2040. Special fee. (3 hr. lecture)

**EDG3410
Classroom Management
and Communication K-12 3 credits**

This course is designed to familiarize the student with the basic skills and knowledge needed to develop practical strategies and techniques to create a positive and cooperative classroom climate for maximum learning. The course emphasizes organization and management of multiple learning environments and multiple approaches to instructional delivery. This includes alternative instructional strategies such as, but not limited to, collaborative learning, peer tutoring, linked course and coordinated studies learning communities. In addition, the course stresses the influence of environmental factors on behavior, the accountability of students for their own behavior, and an analysis of the legal and ethical issues pertaining to positive behavioral management strategies and disciplinary actions. Finally, the course emphasizes the cognitive, linguistic, affective and cultural needs of individual students so that teachers may design safe and appropriate instructional settings. A minimum of 10 hours of observation/teaching specifically related to principles of learning and development are required. Prerequisite: EDF 3111. (3 hr. lecture)

**EDG3443
Classroom Management for
Regular and Exceptional
Students 3 credits**

This course focuses on the acquisition of theories and strategies utilized in the creation of a classroom environment that encourages positive interaction and effective communication. Students will learn about ethics, attitudes, values, and behavior intervention strategies for communicating with educational stakeholders. Fifteen hours of field experience are required. Prerequisite: EDG 3321. Special fee. (3 hr. lecture)

**EDG4045
Civic Engagement
through Service Learning 3 credits**

This course will prepare K-12 teachers to actively involve their students in civic responsibility and social action through the development and implementation of high-quality service learning experiences. Students will learn research based practices including utilization of quality literature, curricular integration, and collaboration between students, teachers, and the community will be modeled and practiced. Prerequisite: Must possess a B.S. degree. Recertification only; (3 hr. lecture)

EDG4376**Integrated Language Arts and Social Sciences****3 credits**

This course provides an overview of current methods of instruction in Language Arts and Social Sciences. Students will learn to implement and integrate Language Arts and Social Science strategies to create accessibility of the curriculum to a diverse population. Prerequisite: EDF4430, EDG3321, and RED3013. Fifteen hours of field experience are required. (3 hr. lecture)

EDS4940**Clinical Supervision for Educators****3 credits**

The course content is congruent with the Florida DOE Training, Clinical Supervision for Educators. Successful completion meets the FS 240.549 mandate for clinical supervision training required for hosting college teacher preparation students in field settings. Students will learn to observe and diagnose teacher classroom performance, write remedial plans, conduct post observation conferences, and evaluate performance. (3 hr. lecture)

EEC1000**Introduction to Early Childhood Education****3 credits**

Introduction to Early Childhood Education is the first in a sequence of four courses in Early Childhood Education. The major areas of study include: Early Childhood history, societal and family influences on young children, child growth and development, techniques of observing and recording behavior, recognition of and dealing with physical child abuse, characteristics of quality programs and teachers. (The modules on child development, guiding behavior, and physical child abuse satisfy H.R.S. requirements as mandated by the State of Florida.) EEC 1000 combines three hours per week in the college classroom with a supervised field experience of at least forty hours per semester. Prerequisite: Must earn a grade of "C" or better. (3 hr. lecture)

EEC1001**Introduction to Early Childhood Infant/Toddler Education****3 credits**

This is a foundation course in early childhood education and services for young children and their families. Students will learn historical roots, societal changes, program differentiation, and future trends. (3 hr. lecture)

EEC1200**Early Childhood Curriculum 1****3 credits**

Early Childhood Curriculum 1 is the second in a sequence of four courses in Early Childhood Education. EEC 1200 enables students to understand how appropriate curriculum planning aids in the advancement of children's social, emotional, physical and intellectual development. The specific curriculum areas of Social Studies, Self-Concept Development, Math, Language and Literacy are covered along with play, room arrange-

ment, scheduling, classroom management and lesson planning. (The modules on anti-bias curriculum and age appropriate activities satisfy H.R.S. requirements as mandated by the State of Florida.) EEC 1200 combines three hours per week in the college classroom with a supervised field experience of at least 40 hours per semester. Pre/Corequisite: EEC 1000, must earn a grade of "C" or better. (3 hr. lecture)

EEC1311**Early Childhood Curriculum 2****3 credits**

Early Childhood Curriculum 2 is the third in a sequence of four courses in Early Childhood Education. The course enables students to understand how appropriate curriculum planning aids in the advancement of children's social, emotional, physical and intellectual development. The specific curriculum areas of Science, Cooking, Health, Safety and Nutrition, and Art, Music and Movement are included along with motor development, play and creativity. The course will emphasize fostering effective family/school relationships; (the modules on age appropriate activities and sexual child abuse satisfies H.R.S. requirements as mandated by the State of Florida.) This course combines three hours per week in college classroom with a supervised field experience of at least 40 hours per semester. Pre/Corequisite: EEC 1000, must earn a grade of "C" or better. (3 hr. lecture)

EEC1522**Infant and Toddler Environments****3 credits**

This is a foundation course for planning the physical facilities, equipment and materials for quality infant and toddler environments. Students will learn how the physical environment affects development of children and supports individual differences. (3 hr. lecture)

EEC2002**Operation of an Early Childhood Facility****3 credits**

This course will provide opportunity for Administrators of early childhood facilities to develop and enhance their leadership role in designing and implementing quality early childcare and education programs. Areas to be covered include organizational leadership and management, programming and financial and legal issues. This course meets the requirements for the Florida Child Care and Educational Program Administrator Foundational Level Credential and can be used toward the Advanced Level of this credential. (3 hr. lecture)

EEC2201**Developing Curriculum for Infants and Toddlers****3 credits**

This is a foundation course in developing appropriate curriculum and learning opportunities for infants and toddlers. Students will learn health, safety, physical, social, emotional, cognitive, language and communication development. (3 hr. lecture)

EEC2202**Program Development in****Early Childhood Education****3 credits**

Program development in Early Childhood Education is the fourth in a sequence of four courses in Early Childhood Education. The course is primarily concerned with the investigation of effective Early Childhood programming and includes the major areas of the learning environment, disadvantaged children, federal and state programs, special needs and at risk children, current model programs, rules and regulations, and professionalism. Assessment of children and reporting of progress will be examined. The course will emphasize the fostering of effective family/school relationships (the module on rules and regulations satisfies H.R.S. requirements as mandated by the State of Florida). The course combines three hours per week in the college classroom with a supervised field experience of at least 40 hours per semester. Prerequisite: EEC 1000 must earn a grade of "C" or better. (3 hr. lecture)

EEC2221**Curriculum High/Scope****Approach****3 credits**

The student will learn about the High/Scope curriculum, its implementation in the classroom and the different components of this approach: the daily routine, planning time, work time, recall time, small-group time, large-group time, and outside time. The student will also learn to use key experiences to set up the learning environment, support children's learning in their play, encourage them to interact in groups, and plan related learning experiences that will directly impact on the advancement of children's social, emotional, physical and cognitive development in the areas of language, math, science, art, music and creativity. (3 hr. lecture)

EEC2224**Emergent Literacy through the Use of Children's Literature****3 credits**

The student will learn about the early childhood teacher's role in promoting emergent literacy in infants, toddlers and preschoolers. Topics include early literacy, oral language acquisition, quality children's literature, emergent reading and emergent writing, family literacy, and literature perspectives to celebrate diversity and to support a curriculum that builds an understanding of human experiences. Prerequisite: EEC 1200 or 2700; (3 hr. lecture)

EEC2271**Working with Young Children with Special Needs and their families****3 credits**

This course provides the student with an overview of young children birth through five years of age with special needs and their families including possible causes and characteristics of exceptionalities, federal laws, and methods of observation, referral process, educational intervention, resources and advocacy. (3 hr. lecture)

EEC2401**Family Interaction and Cultural Continuity****3 credits**

The student will incorporate practices reflecting the values beliefs of families and the cultures of their communities in establishing positive and productive relationships within an educational setting. Emphasis is given to trusting, supportive relationships, and to sustaining a successful partnership with families; (3 hr. lecture)

EEC2407**Facilitating Social Development****3 credits**

This course provides a general introduction to promoting social competency in young children. The major areas of study include: current brain research, developing empathy, creating pro-social classroom environments, developing self-control and the study of current classroom models of behavior guidance; (3 hr. lecture)

EEC2520**Early Childhood Organization leadership and management****3 credits**

This course is designed to provide potential and current child care administrators the opportunity of satisfying one of the educational requirements for the Advanced Level Child Care and Education Administrator Credential as defined by the State of Florida. It is intended to present the needed skills and information in the following areas: organizational structure and dynamics; ethics and professionalism; leadership personnel policies and relationships; and the evaluation and retention involved in staff development. Prerequisite: Florida 40-hour Introductory Child Care Course and Child Development Associate, CDA equivalency or above; (3 hr. lecture)

EEC2523**Programming & Management for Early Childhood Administrators****3 credits**

This course is one of four courses required for a Florida Advanced Level Credential in Child Care Management. The competencies include developmentally and culturally appropriate environments for childcare centers; developmentally and culturally appropriate curriculum for childcare centers; professional standards for child care managers; child observation, assessment, documentation and referral in child care centers; health, safety and nutrition practices in childcare centers; and alliances with the families of children enrolled in childcare centers. Prerequisite: Florida 40-hour Introductory Childcare Course and Child Development Associate (CDA), Child Development Associate Equivalent (CDAE) or above. (3 hr. lecture)

EEC2527**Legal & Financial Issue in Child Care****3 credits**

This course will provide opportunities for administrators or future administrators of early childhood facilities to develop and enhance knowledge in financial and legal

issues in the design and implementation of quality early care and education programs. Areas to be covered include financial planning and on-going monitoring, budgeting and accounting, compensation and benefits, facilities and equipment, financial resource development and marketing, technology and record-keeping, legal obligations tax law, insurance and licensure, regulatory requirements and personnel law. This course meets the requirements for one of the three courses required for Florida Child Care and Education Program Administrator Advanced Level Credential; (3 hr. lecture)

EEC2601**Observation and Assessment in Early Childhood****3 credits**

The student will learn the process and importance of observing, documenting, and interpreting the behavior of young children. Emphasis will be placed on the application of various techniques and reports to document the ongoing development of children and the value of using this information to plan meaningful classroom activities; (3 hr. lecture)

EEX2000**Introduction to Special Education****3 credits**

This introductory course is designed to familiarize pre-service and in-service educators with issues related to the instruction of students with special needs. Pre-service and in-service educators will learn the history of the special education field, litigation and legislation, and an overview of exceptionalities. Prerequisite: EDF1005. (3 hr. lecture)

EEX2010**Teaching Exceptional Children for Temporary Instructors****1 credit**

This one credit course is intended to extend the basic concepts introduced in EDG 2311. Students will learn research-based child development concepts; federal, state, and local Exceptional Student Education Legislation, programs and procedures; cultural and diversity issues in local schools; the district TESOL program, developmentally appropriate content and activities, and school/classroom organization patterns. Prerequisite: EDG 2311 and MDCPS Temporary Instructor Certification. (1 hr. lecture)

EEX2776**The Challenged Citizen in the Workplace****3 credits**

This course is designed to provide the necessary skills and attitudes to comprehend, analyze, apply, discuss and incorporate effective practice principles when working in a diverse workforce that includes people with mental and physical challenges. This course emphasizes the perspectives, challenges, and processes regarding making the workplace more inclusive for all employees across a wide variety of professional disciplines; (3 hr. lecture)

EEX4094**Nature and Needs of Students with Autism Spectrum Disorders****3 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: B.S. in Exceptional Student Education (ESE) plus experience working with students with varying exceptionalities. Special fee. (3 hr. lecture)

EEX4232**Assessment and Diagnosis of Autism Spectrum Disorders****3 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: BS in Exceptional Student Education (ESE) plus experience working with students with varying exceptionalities. Special fee. (3hr. lecture).

EEX4613**Behavior Supports and Management for Students with Autism Spectrum Disorders****3 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: B.S. in Exceptional Student Education (ESE) plus experience working with students with varying exceptionalities. Special fee. (3 hr. lecture)

EEX4761**Assistive Technology and Communication Systems for Students with Autism Spectrum Disorder****3 credits**

The student will learn assistive technology (AT) strategies including its use for improving the communication and functional capabilities of students with autism spectrum disorders. The student will learn to use instructional and assistive technology devices used to support students with autism spectrum disorders. Six hours of clinical experience are required. Prerequisite: B.S. in Exceptional Student Education (ESE) plus experience working with students with varying exceptionalities. Special fee. (3 hr. lecture)

EGI4050**Nature and Needs of Gifted Students****3 credits**

This is one of five courses designed to provide students characteristics and educational needs of adverse gifted population; gifted-

ness is examined historically, theoretically, and practically. Students will learn the changing views of intelligence and giftedness, understanding the diverse socio-cultural, linguistic, and economic backgrounds of the gifted, policy and practice, program models, and the process of giftedness identification. Must hold FLDOE Teaching Certificate. (3 hr. lecture)

EG14230**Curriculum and Educational Strategies for the Gifted** 3 credits

This course is the second of five designed to focus on the implementation of research-based strategies, differentiated curriculum planning, and instructional design for the education of gifted students. Students will learn a variety of enrichment and acceleration approaches and techniques will be presented to the student for use in the organization of the learning environment to promote student achievement. Must hold FLDOE Teaching Certificate. Prerequisite: EGI 4051. (3 hr. lecture)

EG14244**Educating Special Populations of Gifted Students** 3 credits

This course is the third of five designed to educate special populations of gifted students. Students will learn about the socio-cultural and educational similarities and differences of gifted students, specifically the culturally and linguistically diverse, highly gifted, socio-economically challenged, cognitively disabled, and under achievers. Instructional strategies, resources, and materials necessary for the implementation of an equitable system of instruction will be studied by the student. Must hold FLDOE Teaching Certificate. Prerequisite: EGI 4051. (3 hr. lecture)

EG14301**Theory and Development of Creativity** 3 credits

This course is the fourth of five designed to focus on the theory and development of creativity. Students will learn the practical applications of the psychological, environmental and socio-cultural aspects of creativity. Elements such as fluency, originality, flexibility, and elaboration are presented and explored. Effective teaching and assessment strategies to manifest and nurture creative thinking and expression are modeled and practiced for the student. Must hold FLDOE Teaching Certificate. Prerequisite: EGI 4051. (3 hr. lecture)

EG14410**Guidance and Counseling of Gifted Students** 3 credits

This course is designed to focus on the guidance and counseling of gifted students. Students will learn to concentrate on psychological, cultural, and environmental factors that influence the affective growth and development of gifted students. Effective teaching approaches to promote positive self-image and interpersonal skills are modeled and practiced for the student. Guidance, mentoring and counseling interventions that attend to the unique needs of gifted students are examined by the student. Must hold FLDOE

Teaching Certificate. Prerequisite: EGI 4051. (3 hr. lecture)

EME2040**Introduction to Technology for Educators** 3 credits

This course applies instructional design principles for the use of technology to enhance the quality of teaching and learning. Hands-on experience with educational media, emerging technologies, hardware, software and peripherals for the personal computer will be provided. Students will learn to use data driven decision-making to identify appropriate software for classroom applications. Prerequisites: CGS 1060. (3 hr. lecture)

EME3430**Instructional Technology in Mathematics and Science** 2 credits

This course provides teachers with experiences that allow them to use their knowledge of mathematics and science to select technology tools for application in the secondary classroom. Students will learn to apply tools such as spreadsheets, statistical packages, graphing calculators, data collection devices, probe ware, virtual manipulatives, virtual labs, simulations, software and internet resources. (2 hr. lecture)

TSL1084**Introduction to ESOL Principles and Practices** 3 credits

The student will learn about the major elements of first and second language acquisition. Course activities are designed to increase students' understanding of ways to improve the quality of language teaching and learning and to expand their communication and critical thinking skills. Course assignments are designed to enhance students' skills in creating a positive learning environment for all K-12 learners, including those at-risk and those from diverse language backgrounds. A minimum of 10 hours of structured field experience is required; (3 hr. lecture)

Education Foundations & Policy Studies

EEX3012**Nature and Needs of Exceptional Students K-12** 3 credits

This course is designed to familiarize the student with the etiology, terminology, categories, prevalence, behaviors, characteristics and pedagogical approaches of exceptional students, with the expectation that all students have learning strengths. Students will demonstrate Educator Accomplished Practices in this course. Council for Exceptional Children's Content Standards for All Beginning Special Education Teachers are addressed. Minimum 20 hours structured field experience required. (3 hr. lecture)

EEX3071**Teaching Exceptional and Diverse Populations in Inclusive Settings** 3 credits

This course emphasizes the learning of legal and ethical issues in special education, how to address the needs of diverse learners, and the adaptations, accommodations and modifications used in inclusive classrooms. Students will learn to make informed decisions in designing and adapting curriculum for all students. Fifteen hours of field experience are required. Special fee. (3 hr. lecture)

EEX3760**Instructional & Assistive Technology in Special Education** 2 credits

This course provides a basic foundation for the use of technology in special education. Students will learn the educational and assistive technologies (AT) used to support low-incidence special education students and select the best technology applications for the classroom. (2 hr. lecture)

EEX4221**Assessment in Special Education** 3 credits

This course provides opportunities for pre-service educators to analyze and administer informal and formal assessments for special needs student. Pre-service educators will learn to prepare and present assessment data for use in instructional planning and develop individualized educational plans for special needs students. Fifteen hours of field experience are required. (3 hr. lecture)

EEX4264**Curriculum and Instructional Strategies for Students with Disabilities K-5** 3 credits

This course focuses on specialized methods for the creation of instructional curricula and appropriate pedagogic methods for students with disabilities in grades K-5. The development of curricula and the use of instructional approaches that correspond to the capabilities and styles of the various learners will be emphasized. This course meets the guidelines of the Educator Accomplished Practices and incorporates the Council for Exceptional Children's Content Standards for All Beginning Special Education Teachers. A minimum 20 hours of structured field experience required. Prerequisites: EDF 3214, EEX 3111. (3 hr. lecture)

EEX4265**Strategies for Students with Disabilities 6-12** 3 credits

This course focuses on specialized methods for the creation of instructional curricula and appropriate pedagogic methods for students with disabilities in grades 6-12. The development of curricula and the use of instructional approaches that correspond to the capabilities and styles of the various learners will be emphasized. This course meets the guidelines of the Educator Accomplished Practices, and incorporates the Council for

Exceptional Children's Content Standards for All Beginning Special Education Teachers. A minimum 20 hours of structured field experience required. Prerequisites: EDF3214, EEX 3012. (3 hr. lecture)

EEX4601
Effective Behavioral Practices & Interventions in Exceptional Student Education **3 credits**

This course is designed to familiarize the students with the educational management of exceptional learners. Emphasis is on behavior practices and consultation skills leading to students managing their own behavior. Strategies to create and maintain safe, healthy environments for learning in exceptional and inclusive classrooms are presented. Students will demonstrate the Educator Accomplished Practices in this course. The Council for Exceptional Children's Content Standards for all Beginning Special Education Teachers are addressed. Prerequisites: EDF 3111, EEX 3012. (3 hr. lecture)

EEX4614
Conflict Resolution **3 credits**

This course emphasizes techniques and procedures designed to assist individuals in their development as self-directed problem solvers. Students will learn ways to assess and de-escalate conflict situations utilizing a cross-cultural perspective and research-based techniques. A conflict resolution program will be developed for implementation at the organizational or school site. (For Recertification Only)

EEX4834
Practicum in Special Education **3 credits**

This course provides opportunities to plan, collaborate, and implement strategies and pedagogic methods for creating a research based instructional curricula for students in grades K-12. Students will learn to develop and implement curricula and instructional approaches that correspond to diverse learning styles. Forty hours of field experience are required. (3 hr. lecture)

EEX4930
Seminar in Special Education **3 credits**

This course provides the pre-service educator opportunities 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-12 classroom setting. Special fee. (3 hr. lecture)

EEX4940
Internship in Special Education **9 credits**

This course provides a full time, supervised teaching experience. Students will learn and experience all of the educational and professional responsibilities common to teachers within their area of expertise. (288 hr. Internship)

MAE3320
Interactive Middle School Mathematics Projects **3 credits**

In this course students learn principles of effective lesson planning, curriculum design and assessment. Students apply these principles by designing lesson plans, evaluating learning materials and resources, exploring a variety of teaching strategies to accommodate diverse needs and developing interactive mathematics curriculum projects for middle school students. The course addresses specific Sunshine State Standards, subject matter competencies, and pedagogy pertinent to the discipline and required for certification. Prerequisite: MAC 2312 or department permission. (3 hr. lecture)

MAE4360
Methods of Teaching Mathematics **3 credits**

This methods course provides experiences that allow students to develop a theoretical background and practical knowledge for teaching mathematics K-12, using approaches that accommodate the learning needs of a diverse population. Students will design, implement, and assess mathematics teaching and curriculum. Fifteen hours of field experience required. (3 hr. lecture)

MAE4383
Instructional Methods in Secondary Mathematics using Technology **3 credits**

This course addresses the required instructional methods, techniques, strategies, resources, and assessment considerations for effective teaching of secondary mathematics classroom. It also incorporates appropriate technology to support the learning of mathematics. This course addresses specific Sunshine State Standards, subject matter competencies, and pedagogy pertinent to the discipline and required for certification. Prerequisite: MAC 2312 or department approval. (3 hr. lecture)

MAE4793
Applied Research in Teaching and Learning Mathematics **3 credits**

This course evaluates and applies research-based evidence of cognitive and affective factors that impede or enhance learning (e.g., learner characteristics, what makes learning a particular concept difficult, and teaching methodologies for specific content areas) to the teaching of mathematics. It includes pedagogical reflection, problem solving, active learning strategies, physical and visual materials, print and electronic resources and effective questioning and communicating. This course addresses specific Sunshine State Standards, subject matter competencies and pedagogy pertinent to the discipline and required for certification. Prerequisites: EDF 3111 and MAC 2312 or department permission. (3 hr. lecture)

MAE4940
Advanced Topics in Mathematics Education Practicum **3 credits**

This course is designed to introduce and provide practice in classroom research and

expand pre-interns' experience in instructional planning and the implementation of mathematics instruction. Students will learn to use action research strategies to identify and address issues related to learning about mathematics concepts in grades 6-12. Forty hours of field experience are required. Prerequisite: MAE 4360. (3 hour lecture)

MAE4942
Seminar in Mathematics Education **3 credits**

The course provides the pre-service educator opportunities 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 grade 6-12. Mathematics setting. Special fee. (3 hr. lecture)

MAE4945
Internship/Student Teaching in Mathematics Education **9 credits**

This course provides a full-time, supervised teaching experience. Students will learn and experience all of the educational and professional responsibilities common to mathematics teachers. (288 hr. Internship)

MHF4404
History of Mathematics **3 credits**

A study of the development of mathematics from ancient civilizations to the present time. Prerequisite: MAC 2312 or approval of department. (3 hr. lecture)

SCE3893
Teaching and Learning the Nature of Science **3 credits**

This course is designed to introduce the pre-service teacher to the philosophical, historical, and sociological views of the nature of science and its role in science education reform. Students will learn to develop instructional materials and strategies focusing on the nature of science. Fifteen contact hours of field experience are required. (3hr. lecture)

SCE4362
Methods of Teaching Science **3 credits**

This methods course is designed to provide experiences that allow students to develop the theoretical background knowledge and skills that are essential for successful science teaching. Students will learn to design, implement, and assess science teaching and curriculum. Fifteen hours of field experience are required. (3 hr. lecture)

SCE4363
Methods of Teaching Science 2 **3 credits**

This course is designed to help the student gain the knowledge and skills necessary to become an effective teacher in the area of secondary and middle school science, including chemistry, physics, biology and earth sciences, with an emphasis on laboratory instruction. The student will develop a more complete theoretical basis for science education including the needs of exceptional students, learn practical applications of the

theory, become familiar with modern instructional methods and programs in science education, and develop effective methods of assessment for a variety of evaluation modes. Twenty hours (20) of field experience is required to successfully complete this course. Prerequisite: SCE 4362. (3 hr. lecture)

SCE4363**Advanced Topics in Science****Education Practicum****3 credits**

This course is designed to help the student gain the knowledge and skills necessary to become an effective teacher in the area of secondary and middle school science, including chemistry, physics, biology and earth sciences, with an emphasis on laboratory instruction. The student will develop a more complete theoretical basis for science education including the needs of exceptional students, learn practical applications of the theory, become familiar with modern instructional methods and programs in science education, and develop effective methods of assessment for a variety of evaluation modes. Twenty hours (20) of field experience is required to successfully complete this course. Prerequisite: SCE 4362. (3 hr. lecture)

SCE4943**Seminar in Science Education****3 credits**

The course provides the pre-service educator opportunities 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 grade 6-12 science setting. Prerequisites: SCE4945 and departmental approval. (3 hr. lecture)

SCE4945**Internship/Student Teaching in Science Education****9 credits**

This course provides a full-time, supervised teaching experience. Students will learn and experience all of the educational and professional responsibilities common to science teachers. Co-requisite: SCE 4943.

Education: American Sign Language And ASL Interpretation

INT1000**Interpreting Ethics and Professionalism****3 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; (3 hr. lecture)

INT1202**Sign to Voice Interpreting****3 credits**

In-depth discussion and application of techniques and principles for interpreting situations in legal, medical, oral and deaf/blind. Prerequisite: ASL 2160C, INT 1240. A.S. degree credit only. (3 hr. lecture)

INT1240**Voice to Sign Interpreting****3 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. (3 hr. lecture)

INT1400**Educational Interpreting****3 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; (3 hr. lecture)

INT1480**Interpreting: Special Settings & Populations****3 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; (3 hr. lecture)

INT1941**Interpreting Internship****5 credits**

The course includes field observation and supervised practical interpreting experience in a one-to-one interpreting situation in the community. The student is assigned to a practicing interpreter who acts as a mentor for the duration of the internship. A minimum of 240 hours is spent in the internship experience. This includes meetings with college staff and the interpreter/mentor. Prerequisites: All courses in the subject major must have been completed prior to enrolling in this course; (240 hr.)

Emergency Medical Services

EMS1059**1st Responder Emergency Care****1 credit**

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. Prerequisite EMS 1059L. Special fee. (2 hr. lecture)

EMS1059L**1st Responder Emergency****Care Laboratory****1 credit**

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 (2 hr. lab.)

EMS1119**Emergency Medical Technician****4 credits**

A review of basic life support theory. Areas of emphasis include the pre hospital environment, preparatory information, patient assessment, medical emergencies, behavioral emergencies, OB/GYN emergencies, trauma emergencies, pediatric emergencies and EMS operations. Corequisites: EMS 1119L, EMS 1431. (4 hr. lecture)

EMS1119L**Emergency Medical****Technician Lab and Clinic****2 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-A level practitioner. Corequisites: EMS 1119, 1431. Laboratory fee. A.S. degree credit only. (8 hr. lab.)

EMS1431**EMT Hospital/Field****Experience****3 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. A.S. degree credit only. (9 hr. clinic)

EMS2311**Emergency Medical****Operations****3 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. Prerequisite: MNA 1345. A.S. degree credit only. (3 hr. lecture)

EMS2601**Paramedic Lecture 1****8 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. A.S. degree credit only. (8 hr. lecture)

EMS2601L

Paramedic Laboratory 1 4 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. Laboratory fee. (8 hr. lab.)

EMS2602

Paramedic Lecture 2 8 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. A.S. degree credit only. (8 hr. lecture)

EMS2602L

Paramedic Laboratory 2 4 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. Laboratory fee. A.S. degree credit only. (8 hr. lab.)

EMS2659

EMS-Field Internship and Conference 8 credits

A supervised clinical experience on an Advanced life Support (ALS) vehicle. The stu-

dent 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. A.S. degree credit only. (24 hr. clinic)

EMS2664

Paramedic Clinic 1 3 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. A.S. degree credit only. (9 hr. lab.)

EMS2665

Paramedic Clinic 2 3 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: EMS 2602, 2602L. A.S. degree credit only. (9 hr. lab.)

Engineering - General

EEL2114C

Engineering Circuit Analysis 4 credits

Basic electrical quantities, sources and elements, power and energy, Kirchoff's law, network solution impedance, transfer functions, plane, periodic and exponential excitation functions, phasor algebra, natural and forced system response, total response, frequency response, resonance, magnetic circuits, physical electronics, operation of electronic devices, principles of electromechanical energy conversion. Prerequisites: MAC 2311, PHY 2049. (2 hr. lecture; 4 hr. lab.)

EGN1949

Co-Op Work Experience 1 1 - 4 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. A.S. degree credit only. (1-4 hr. lecture)

EGN2033

Civilization & Engineering 1 3 credits

This course is designed for students who are interested in learning about the impact of technology on people and society. Students learn about changes in human culture and

quality of life as a result of technological innovation. Topics include important developments and trends in technology, the interaction between people and technologies, contemporary events in technology and their impact on society, the role of the engineer in designing and promotion of new technologies, and how to evaluate the social, ethical, political, and economic implications of existing and emerging technologies. (3 hr. lecture)

EGN2037

Civilization & Engineering 2 3 credits

A historical study on the development of engineering-related technology and its impact on society from the industrial revolution to the present. From the steam engine to the microcomputer, relationships between technological and social change are explored with emphasis on how the development of materials, methods and tools affected man and the growth of civilization. (3 hr. lecture)

EGS1001C

Introduction to Engineering 3 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). Prerequisite: MAC 1105. (3 hr. lecture)

EGS2020

Engineering Measurement and Computations 3 credits

The Scientific Electronic Calculator is used as a fundamental engineering tool. The student develops confidence and speed by working on problems taken from geometry, mechanics, and interest calculation. (3 hr. lecture)

EGS2311

Engineering Mechanics - Statics (With Vectors) 4 credits

This is a foundation course in engineering mechanics. Students 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. Laboratory fee. Prerequisites: MAC 2311, PHY 2048 or equivalent. (3 hr. lecture; 2 hr. lab.)

EGS2321

Engineering Mechanics-Dynamics 4 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 Kinetics, energy of particles, rigid bodies in 2-D and 3-D motion and vibrations. Prerequisite: EGS 2311. Special fee. (3 hr. lecture; 2 hr. lab.)

Engineering Technology Civil

ETC2450 Concrete Construction 3 credits

The use of concrete in construction to include foundations, columns, beams, slabs, hydraulic conduits. Prerequisite: ETG 2502. (3 hr. lecture)

Engineering Technology Drafting

ETD1110 Technical Drawing 1 4 credits

Introduce students to the principles of instrument drawing, orthographic projection, visualization, specialized computer processes and introductory computer aided drawing (CAD). Students develop drawing and sketching techniques common to industry. Prerequisite: EGS 1111C. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

ETD1340 Computer Aided Drawing & Design 3 credits

Industry standard drafting and design practice with the assistance of CADD in a laboratory environment. Working drawing and design routines produced in the CADD system and executed to hard copy via plotter. Prerequisite: MTB 1321 or MAC 1105. Laboratory fee. (2 hr. lecture; 2 hr. lab.)

ETD1542 Structural Drafting 4 credits

Development of structural, fabrication and erecting drawings. Course involves study of structural shapes, their properties, and methods of developing connections, as well as study of common reinforced concrete practices. Prerequisite: ETD 1110. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

Engineering Technology Electrical

CET1110C Digital Circuits 4 credits

This is an introductory course in digital circuits for students majoring in engineering technology fields. Students will learn how to apply electronic principles to digital computer circuits and systems, simplify logical circuits using Boolean algebra, build digital circuits, and perform other laboratory activities. Prerequisite: EET1015C, MAC1105. Pre/Corequisite: COP2270. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

CET1171 Introduction to Computer Service and Maintenance 3 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. Laboratory fee. A.S. degree credit only. (3 hr. lecture)

CET1178C A+ Computer Hardware Service 3 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 how to connect network equipment. Laboratory fee. A.S. degree credit only. (3 hr. lecture)

CET1487C Network+ 3 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. Laboratory fee. A.S. degree credit only. (2 hr. lecture; 2 hr. lab.)

CET2113C Advanced Digital Circuits 4 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. Laboratory fee. (2 hr. lecture; 2 hr. lab.)

CET2123C Microprocessors 4 credits

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). Prerequisite: CET2113C, MAC1114 or MAC1147. Laboratory fee. A.S. degree credit only. (2 hr. lecture; 4 hr. lab.)

CET2588C Server + Service and Maintenance 3 credits

This is an advanced course 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. Prerequisite: CET 1178C or A+ certification. Laboratory fee. (3 hr. lecture)

CET3126C Advanced Microprocessors 4 credits

This is an upper division level course for students majoring in electronics engineering technology that presents an in-depth study of advanced (16-bit and 32-bit) microprocessors as they apply to embedded systems. Students learn standards relating to embedded design, hardware requirements, embedded processors, memory, I/O, & buses and software topics relating to embedded design including device drivers, embedded operating systems, middleware and application Software. Students apply this knowledge to the design, development, and testing of an embedded system. Prerequisite: CET 2123C. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

CET4190C Applied Digital Signal Processing 4 credits

This is an upper division level course for students majoring in electronics engineering technology. Digital signal processing (DSP) is the study of signals in a digital representation and the processing methods of these signals. Students learn digital and analog signal processing, including how to convert between analog and digital forms, how to measure for digital signal processing including field-programmable gate arrays (FPGAs), digital signal controllers, and stream processors. Prerequisites: CET 3126C, EET 4732C. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

EET1015C Direct Current Circuits 4 credits

This is a required course for all students studying electronics engineering technology and related disciplines. Students will learn electrical components, inductance, capacitance, and elementary network analysis. Students will learn to verify and apply basic theories and principles through hands-on, laboratory experiments utilizing modern testing equipment. Pre/Corequisite: MAC 1105. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

EET1025C Alternating Current Circuits 4 credits

This is a foundation course in alternating current required for all students in electronics engineering technology and related disciplines. Students will learn vector notation, 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: EET1015C; Pre/Corequisite: MAC1114 or 1147 or MTB1322. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

EET1037C**Electronic Computer****Simulations****3 credits**

An investigation of network theorems with practical illustrations. Thevenin's, Norton's, Kirchoff's and the superposition methods of analysis are applied to the solution of resistive and reactive networks. Resonant circuits and transient voltages and currents are analyzed. Prerequisite: EET 1141C; Corequisite: MTB 1322 (3 hr. lecture)

EET1082**Introduction to Electronics****3 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. (3 hr. lecture)

EET1141C**Electronics 1****4 credits**

This is the first of two courses covering solid state electronics for students requiring a foundation in electronics. Students will learn how to apply electronic principles to analog circuits, systems, and semiconductor diodes, applying the fundamental theory of transistors and other solid-state devices; analysis of amplifiers, oscillators, and other applications using a sinusoidal wave. Prerequisite: EET1025C; Pre/Corequisite: MAC 1114, or 1147, or MTB1322. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

EET2101C**Electronics 2****4 credits**

This is the second of two courses covering solid state electronics designed for students who are studying Engineering Technologies. Students will learn how to apply electronic principles to analog circuits and systems including transistor amplifiers, feedback and frequency response of linear circuits, operational amplifiers and oscillators. Prerequisite: EET 1141C. Laboratory fee (2 hr. lecture; 4 hr. lab.)

EET2323C**Electronic****Communications 1 - Analog****4 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; Pre/Corequisite: EET 2101C. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

EET2351C**Electronic****Communications 2 - Digital****4 credits**

This course provides a theoretical and practical background in the basic concepts and applications of digital and data communi-

cations. 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: EET2323C; Pre/Corequisite: CET2113C. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

EET2515C**Motors and Generators****3 credits**

This course is designed for students specializing in industrial equipment maintenance. Students learn how to analyze, troubleshoot, and repair rotating electric machinery with emphasis on industrial applications. Students learn terminology specific to motors, generators, and transformers; electromechanical device theory; circuits connecting electromechanical devices to voltage sources and loads; and how to apply mathematical analysis to determine quantitative circuit functioning in terms of voltage, current, and power. Prerequisite: EET 1025C. Corequisite: EET 1141C. A.S. degree credit only. Special fee. (2 hr. lecture; 2 hr. lab.)

EET2527C**Motor Starters,****Controllers, and Breakers****3 credits**

This course is designed for students specializing in industrial equipment maintenance covering AC and DC power distribution in the plant. Students learn operating principles, troubleshooting, repair, and maintenance of switch gear, motor control centers, breaker panel power, control, and instrument cable, raceways, protective devices and grounding as related to the generating station. Hands-on, laboratory exercises reinforce each major concept studied. Prerequisites: EET 1141C, EET 2515C. A.S. degree credit only. Special fee. (2 hr. lecture; 2hr. lab.)

EET2547C**Transformers and****Power Distribution****3 credits**

This course is designed for students specializing in industrial equipment maintenance. Students acquire an understanding of the components and devices used to distribute power, and how to protect major elements involved in power distribution. Students learn about the uses and maintenance of fuses, circuit breakers, re-closures, and relay coordination; how to protect against lightning and other abnormal conditions; and the protection of transformers, motors, and generators. Prerequisite: EET 2515C; Corequisite: EET 2527C. A.S. degree credit only. Special fee. (2 hr. lecture; 2 hr. lab.)

EET3158C**Linear Integrated Circuits and Devices****4 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 2101C. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

EET3716C**Advanced System Analysis****4 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 transforms and partial fraction expansion. Students learn theorems, Fourier series, frequency response and bode plots, and their application towards practical systems. Prerequisite: EET 2101C; Pre/Corequisite MAC 2312. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

EET4165C**Senior Design 1****3 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. Laboratory fee. (1 hr. lecture; 4 hr. lab.)

EET4166C**Senior Design 2****3 credits**

This is a capstone course for students completing the course of study for the baccalaureate in Electronics Engineering Technology in which students demonstrate their knowledge and skills applicable to the degree program's core competencies and outcomes. The course is a project-based experience in which students apply all of the skills they have acquired to analyze, design, simulate, synthesize, and test a complete electronics/electrical system. Department approval required. Prerequisite EET 4165C. Laboratory fee. (1 hr. lecture; 4 hr. lab.)

EET4730C**Feedback Control Systems****4 credits**

This course is designed to expose students to the analysis of networks and control systems. Students learn about stability and compensation considerations, using root locus, Nichols chart, and Bode plots: simulation techniques; and how to apply these principles to build and test control systems. Prerequisite: EET 3158C. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

EET4732C**Signals & Systems****4 credits**

This course is designed to cover the use of Fourier analysis in electrical and electronic systems and to be an introduction to probability theory, linear algebra, and complex variables. Students will learn how to apply convolution, Fourier transforms, Laplace, and z transforms to electrical signals and systems.

Prerequisite: MAC 2311. (2 hr. lecture; 4 hr. lab.)

EST2520C

Process Measurement Fundamentals

3 credits

This course is designed for students who will be supporting industrial equipment processes. Students will learn how to perform the typical measurements made in industrial measurement and control loops. Topics include the basic physics involved in the measurements, as well as the common types of sensors used in industry with emphasis on pressure, temperature, flow, level, and analytical measurement theory. Prerequisites: EET1025C, PHY 1025. Laboratory fee. A.S. degree credit only. (2 hr. lecture; 2 hr. lab.)

EST2524C

Machine Alignment

4 credits

This course is designed for students preparing for industrial mechanical maintenance positions. Students learn how to identify machine alignment problems, tools and techniques for correcting alignment conditions, and how to perform alignments given specific conditions and parameters. Prerequisite: ETI 1000. Laboratory fee. A.S. degree credit only. (2 hr. lecture; 4 hr. lab.)

EST2526C

Mechanical Seals

4 credits

This course is designed for students preparing for industrial mechanical maintenance positions. Students learn how to repair, maintain, and troubleshoot mechanical seals in industrial equipment. Prerequisite: ETI 1000. Laboratory fee. A.S. degree credit only. (2 hr. lecture; 4 hr. lab.)

EST2530C

Process Control Technology

3 credits

This course is designed for students studying systems and associated electronic circuits encountered in the field of electric machinery and industrial controls. Students learn to analyze systems and devices and perform calculations to determine parameters to accurately predict operation. Students examine the concepts and principles of open and closed loop systems, transducers, transformers, Transmission and distribution systems. Prerequisite: EET1025C. A.S. degree credit only. Special fee. (2 hr. lecture; 2 hr. lab.)

EST2542C

Programmable Logic Controllers 1

3 credits

This first course in programmable logic controllers (PLC), is designed for students preparing for careers in electronics, manufacturing, electrical or industrial technology. Students learn the basic operational concepts common to PLCs, focusing on PLC principles, programming, numbering systems, data manipulation, math and sequencer instructions. Pre/Corequisite: EET 1141C. A.S. degree credit only. Special fee. (2 hr. lecture; 2 hr. lab.)

EST2544C

Programmable Logic Controllers 2

3 credits

This course is a continuation of EST 2542C for students who are familiar with basic PLC operations and concepts. Students learn the skills required to troubleshoot and maintain logic controllers in a simulated industrial environment. Topics covered include program control instructions, date manipulation instruction, math instructions, acquisition, computer controlled machines and processes. Prerequisite: EST 2542C. A.S. degree credit only. Special fee. (2 hr. lecture; 2 hr. lab.)

EST3543C

Programmable Logic Controllers

4 credits

This course is designed to provide students with the skills to design, operate, and test PLC systems. Students learn logic fundamentals, programming technologies, integrated circuits, and number systems as applied to PLC technology. Prerequisite: CET 2123C. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

ETI1000

Industrial Plant Tools and Equipment

1 credit

Students acquire the knowledge and skills necessary to properly select, inspect, use, and care for the tools, test equipment, and lifting/handling equipment commonly used in the performance of assigned tasks in an industrial plant setting. A.S. degree credit only. Special fee. (2 hr. lab.)

ETI1701

Industrial Safety

3 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. (3 hr. lecture)

ETI1805C

Introduction to Lifting and Rigging

3 credits

This course provides knowledge and skills required by students preparing for careers in industrial maintenance of heavy equipment. Students learn how to determine rigging requirements for lifts, select equipment, calculate loads and safely operate different types of lift equipment. Prerequisites: ETI 1701 EET 1581. A.S. degree credit only. Special fee. (2 hr. lecture; 2 hr. lab.)

ETI2315C

Fluid/Pneumatic Instrumentation

3 credits

This course is designed for students specializing in industrial equipment maintenance. Students learn and apply the basic principles and operation of hydraulic and pneumatic instrumentation and testing equipment to repair equipment. Laboratory experiments are performed with extensive hands-on application. Prerequisite: MAC 1105. A.S. degree credit only. Special fee. (2 hr. lecture; 2 hr. lab.)

ETI2408C

Welding Processes

3 credits

This course is designed for students who require basic welding process skills to prepare themselves for entry-level maintenance technician positions. The student learns principles of welding safety, fundamental practices of shielded arc welding, arc welding with consumable and non-consumable electrodes, brazing, soldering, and plasma cutting. Prerequisite: ETI 2425C. Laboratory fee. A.S. degree credit only. (2 hr. lecture; 2 hr. lab.)

ETI2425C

Metallurgical Properties and Dynamics

3 credits

This course provides students who are preparing for occupations in industrial maintenance with a foundation in the principles of the metallurgy of steel. Students learn about the thermal, physical and chemical properties of steel. Prerequisite: PHY 1025. A.S. degree credit only. Special fee. (2 hr. lecture; 2 hr. lab.)

ETI2451C

Mechanical Maintenance for Power Plants

3 credits

This course is designed for students who are preparing for mechanical and industrial maintenance operations. Students learn how to read and interpret drawings and blueprints, the application of lubrication principles, how to perform torque procedures, and the correct procedures for maintaining sealants, O-rings, and gaskets in power plant environments. Prerequisite: ETI 2416C. Laboratory fee. A.S. degree credit only. (2 hr. lecture; 2 hr. lab.)

ETI3671

Technical Economic Analysis

3 credits

This course is designed to cover the formulation and application of analytical techniques to reach cost effective solutions to engineering problems. Students will learn time based analysis of selection, replacement, and lease-or-buy decisions including multiple alternatives, uncertainty, and sensitivity analysis, using a problem-solving approach. Prerequisite: MAC 1105. (3 hr. lecture)

ETI3704

Industrial Safety in Electronics Engineering Technology

3 credits

This course is designed to teach students principles of safety in typical industrial electronics and manufacturing environment. Emphasis will be placed on occupational safety and health act (OSHA) and Materials Safety Data Sheets (MSDS). Students will learn analysis and design of safety programs for industry. (3 hr. lecture)

ETI4480C

Applied Robotics

4 credits

This is an upper division level course designed as an introduction to robotics programming and includes robotic applications for multi-function part manipulation and motion with stepper and servo-motors. Students learn topics related to robotic design including robotic vision, motion planning, sensing and sensors,

actuators, navigation systems, mobility, forward and inverse kinematics, and non-holonomic path planning. Laboratory activities provide hands-on application of concepts and theories. Prerequisite: CET 3126C. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

ETP1200
Power Plant Science 3 credits

This course is designed to familiarize students who are preparing for careers in Electrical Power Technology with the fundamentals of power plant sciences. Students will learn about basic electrical science, properties of reactor plant materials, basic atomic and nuclear physics, heat transfer and fluid flow, reactor safety design, and plant chemistry. Prerequisites: MAC 1105, PHY 1025. A.S. degree credit only. (3 hr. lecture)

ETP1220
Power Plant Fundamentals 3 credits

This course is designed to provide the student with the theory of operation of power plants and general administrative procedures for completing routine tasks. (3 hr. lecture)

ETP1230
Power Plant Systems 2 credits

This course provides an introduction to the major systems and components that make up a modern power plant. (2 hr. lecture)

ETP2232C
Power Plant Machines and Components 2 4 credits

This course continues the study of industrial machines begun in ETI2416C for students who are preparing for careers in industrial and/or power plant mechanical maintenance. Students learn the principles, concepts, and applications of various mechanical systems encountered in industrial applications, how to identify basic systems and components encountered in power plants, how to troubleshoot equipment problems, and basic procedures involved in maintaining and replacing component parts. Prerequisite: ETP 2231C. Laboratory fee. A.S. degree credit only. (2 hr. lecture; 4 hr. lab.)

ETP3240
Power Systems 3 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. (3hr. lecture).

Engineering Technology Mechanical

ETM1700
Air Conditioning Fundamentals 3 credits

The basic science of air conditioning technology, the fundamentals of air conditioning for environmental control, the function and

operation of the equipment and the air conditioning design process. (3 hr. lecture)

ETM2730C
Air Distribution 3 credits

Intensive study and practical application of air distribution technology. Duct design, fans, low velocity, high velocity, and variable volume systems are included. Laboratory work includes duct design projects. Prerequisite: ETM 1700. Laboratory fee. (2 hr. lecture; 2 hr. lab.)

ETM2740C
Air Conditioning Controls & Motors 3 credits

Air conditioning and refrigeration control devices and theory, operation and application are covered. Electric motor technology with practical application to air conditioning is also included. Prerequisite: ETM 1720C. Laboratory fee. (2 hr. lecture; 2 hr. lab.)

ETM2750C
Air Conditioning Systems Design 3 credits

Design of residential and commercial environmental control systems utilizing unitary equipment. Prerequisite: ETM 1710C. Laboratory fee. (2 hr. lecture; 2 hr. lab.)

ETM2930
Air Conditioning Seminar 3 credits

A seminar for advanced students and those with experience in air conditioning engineering covering new concepts, equipment and advances in the technology of air conditioning. Prerequisite: Permission of the department chairperson. (3 hr. lecture)

Engineering Technology-General

EEL2114C
Engineering Circuit Analysis 4 credits

Basic electrical quantities, sources and elements, power and energy, Kirchoff's law, network solution impedance, transfer functions, plane, periodic and exponential excitation functions, phasor algebra, natural and forced system response, total response, frequency response, resonance, magnetic circuits, physical electronics, operation of electronic devices, principles of electromechanical energy conversion. Prerequisites: MAC 2311, PHY 2049. (2 hr. lecture; 4 hr. lab.)

EGN1949
Co-Op Work Experience 1 1 - 4 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. A.S. degree credit only. (1-4 hr. lecture).

EGN2033
Civilization & Engineering 1 3 credits

This course is designed for students who are interested in learning about the impact of technology on people and society. Students learn about changes in human culture and quality of life as a result of technological innovation. Topics include important developments and trends in technology, the interaction between people and technologies, contemporary events in technology and their impact on society, the role of the engineer in designing and promotion of new technologies, and how to evaluate the social, ethical, political, and economic implications of existing and emerging technologies. (3 hr. lecture)

EGN2037
Civilization & Engineering 2 3 credits

A historical study on the development of engineering-related technology and its impact on society from the industrial revolution to the present. From the steam engine to the microcomputer, relationships between technological and social change are explored with emphasis on how the development of materials, methods and tools affected man and the growth of civilization. (3 hr. lecture)

EGS1001C
Introduction to Engineering 3 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). Prerequisite: MAC 1105. (3 hr. lecture)

EGS2020
Engineering Measurement and Computations 3 credits

The Scientific Electronic Calculator is used as a fundamental engineering tool. The student develops confidence and speed by working on problems taken from geometry, mechanics, and interest calculation. (3 hr. lecture)

EGS2311
Engineering Mechanics - Statics (With Vectors) 4 credits

This is a foundation course in engineering mechanics. Students 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. Laboratory fee. Prerequisites: MAC 2311, PHY 2048 or equivalent. (3 hr. lecture; 2 hr. lab.)

EGS2321
Engineering Mechanics-Dynamics 4 credits

This course provides students with the skills they need to analyze and solve problems involving bodies in motion through the appli-

cation of vector mechanics and Newton's laws. Students will learn Kinetics, energy of particles, rigid bodies in 2-D and 3-D motion and vibrations. Prerequisite: EGS 2311. Special fee. (3 hr. lecture; 2 hr. lab.)

English Language & Literature

AML2010

American Literature 1 3 credits
American Literature from Colonial times to the Civil War. Prerequisites: ENC 1101, 1102; (3 hr. lecture)

AML2020

American Literature 2 3 credits
American literature from the Civil War to the present. Prerequisites: ENC 1101, 1102; (3 hr. lecture)

AML2602

African-American Literature 2 3 credits
This course reviews the Harlem Renaissance period and focuses on contemporary Black American literature to the present. Emphasis will be on the enormous body of literature produced in the 1960's, including prose, poetry, drama and biography as well as films and some TV specials. (3 hr. lecture)

CRW2001

Creative Writing 1 3 credits
Imaginative writing in selected genres. (3 hr. lecture)

CRW2002

Creative Writing 2 3 credits
Imaginative writing in selected genres. (3 hr. lecture)

ENC1101

English Composition 1 3 credits
This is the first required general core course in college-level writing. The student will learn to compose essays and other works using various methods of development. This course fulfills the Gordon Rule requirement and must be completed with a grade "C" or better. Prerequisites: Placement by Scholastic Assessment Test (SAT) verbal student score; American College Testing (ACT) English subtest score; Computer Placement Test (CPT) English subtest score; or ENC0021 with a grade of "S". Special fee. (3 hr. lecture)

ENC1102

English Composition 2 3 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 non-fiction, and produce a documented paper based on research. This course fulfills the Gordon Rule requirement and must be completed with a "C" or better. Prerequisite: ENC1101. Special fee. (3 hr. lecture)

ENC1112

Essential Elements of English Grammar 1-3 credits
This course is designed for students whose writing and/or CLAST English language skills test scores demonstrate a need for continued instructional support. It covers many of the same topics assessed by the CLAST objective English language skills component. Course content is individualized based on specific student needs. This course is repeatable. Prerequisites: Placement by Scholastic Assessment Test (SAT) verbal subtest score; American College Testing (ACT) English subtest score; Computerized Placement test (CPT) English subtest score or ENC0021 with a grade of "S". (1-3 hr. lecture)

ENC1113

Writing Skills Review 1-3 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 one-to-three-credit course is repeatable. Prerequisites: Placement by Scholastic Assessment Test (SAT) verbal score; American College Testing (ACT) English subtest score; Computerized Placement test (CPT) English subtest score; or ENC0021 with a grade of "S".

ENC2300

Advanced Composition and Communication 3 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. Gordon Rule Assigned. (3 hr. lecture)

ENG1949

Co-op Work Experience 1:
ENG 3 credits
This course is 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. (3hr. lecture)

ENL2012

English Literature 1 3 credits
A survey of major British writers from Chaucer through the 18th century. Required of English majors. Prerequisites: ENC 1101, 1102 or equivalent; (3 hr. lecture)

ENL2022

English Literature 2 3 credits
A survey of major British writers from the

18th century through the contemporary period. Required of English majors. Prerequisites: ENC 1101, 1102; (3 hr. lecture)

LIT2090

Contemporary Literature 3 credits
A survey of contemporary prose and poetry. Prerequisites: ENC 1101, 1102 or equivalent. (3 hr. lecture)

LIT2110

World Literature 1 3 credits
The masterpieces of world literature. Prerequisites: ENC 1101, 1102 or equivalent. (3 hr. lecture)

LIT2120

A Survey of World Literature 2 3 credits
LIT 2120 explores masterpieces of world literature from the mid-Renaissance to the present. Works studied exemplify the universality of human experience. Gordon Rule Assigned. Prerequisites: ENC 1101, 1102 or equivalent. (3 hr. lecture)

LIT2131

Mythology in Literature: The Arthurian Tradition 3 credits
The course will trace the progress of the legends surrounding King Arthur from medieval to contemporary poetry and prose, with primary focus on literary texts and supplementary investigation of Arthurian themes in art, film and music. (3 hr. lecture)

LIT2174

Literature of the Holocaust and Genocide 3 credits
This course explores the literary responses to the Holocaust and Genocide using a variety of texts including written, film and propaganda/graphic arts. Students will learn the various literary techniques used to interpret these key world and historical events. Prerequisite: ENC 1101. (3 hr. lecture)

LIT2330

Survey of Children's Literature 3 credits
This course will familiarize interested students with major works in children's literature and with the principal genres and subgenres including, but not limited to, picture books (Mother Goose, easy-to-read books, picture storybooks); traditional fantasy (folktales, myths); modern fantasy (curious characters, science fiction); realistic fiction; poetry; and nonfiction. It will also analyze the role that literature has played and/or should play in the teaching of reading in primary school. (3 hr. lecture)

LIT2480

Issues in Literature & Culture 3 credits
LIT2480 explores literature as a form of cultural expression. Students are engaged in the critical process of analysis by connecting literary texts to cultural issues. Through oral and written assignments, and practical investigation, students will study literature as a socio-cultural response by writers to the world in which they live. Gordon Rule assigned. (3 hr. lecture)

English Language and Literature - College Preparatory

ENC0015

Developmental Writing I 4 credits
Developmental Writing I is a college preparatory writing course. Students will learn to address effective sentence and paragraph development. Lab time required. Laboratory fee. Prerequisite: Placement by Scholastic Assessment Test (SAT) verbal subtest score; American College Test (ACT) English subtest score; Computer Placement Test (CPT) or Postsecondary Education Readiness Test (PERT). Student must have completed the college's entrance exam and placed in the appropriate course level in order to register. (2 hr. lecture; 4 hr. lab.)

ENC0025

Developmental Writing II 4 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. Laboratory fee. Prerequisite: Computer Placement (CPT) score; Scholastic Assessment Test (SAT); American College Test (ACT); or Post-secondary Education Readiness Test (PERT). Student must have completed the college's entrance exam and placed in the appropriate course level in order to register. (2 hr. lecture; 4 hr. lab.)

Environmental Studies

EVR1001

Introduction to Environmental Sciences 3 credits
Students will learn a conceptual approach to understanding the interrelationships of humans and natural processes at work in the environment. Application to local issues as well as broader global problems and prospects will be made, with emphasis on sustainable development. Special fee. (3 hr. lecture)

EVR1010

Environmental Compliance 3 credits
This course will teach a student how environment compliance is achieved in South Florida via Federal, State and local programs. Topics covered will include environmental regulations, policies, procedures and enforcement. Emphasis will be placed upon a holistic approach to the environment through Field Office, Lab and Legal procedures. In addition, students will understand how the course material and their active participation in addressing environmental issues will assist them in obtaining employment in the environmental field. (3 hr. lecture)

EVR1015

Hazardous Materials and the Environment 3 credits
Deals with the basic principles for relationship between man and his environment. Emphasis is placed on an investigation into the physical, biological, economic, social and political factors producing ecological changes. In addition, effects of hazardous materials upon the environment are studied. (3 hr. lecture)

EVR1030

Soil and Ground Water Monitoring 3 credits
The student will be exposed to the theory and practical concepts of environmental sampling and the basic principles of properly collecting soil and groundwater samples in a safe and efficient manner. Students will gain valuable hands-on experience in the following areas: meter calibration and maintenance, equipment decontamination and sterilization, field survey techniques and sample collection in order to ensure sample integrity. (3 hr. lecture)

EVR1190

Environmental Sampling Procedures 3 credits
Theory and Practice of Environmental Sampling teaches the student the basic principles of properly collecting quality aqueous and solid environmental samples in a safe and efficient manner. Students will gain hands-on experience in the following areas: meter calibration and maintenance, equipment decontamination, field survey techniques, and sample collection. (3 hr. lecture)

EVR1215

Open Channel Flow Measurement 3 credits
Increasing stricter legislation and continuing public interest in conservation and environmental matters have emphasized the importance of flow measurements. Uniform and reliable measurements data are needed to determine the results of conservation and quality control measures, and to enforce water conservation and regulatory requirements. This course provides the student instructions in the field of open channel flow. This course will be of practical value to individuals dealing with the realities of difficult open channel flow problems. (3 hr. lecture)

EVR1262

Introduction to Ecology & Urban Industrial Pollutants 3 credits
This course offers an introduction to the forces of nature, plants and animals that form ecosystems. The focus is on urban growth and industrial discharges and the effects of development and pollution on such habitats. The scope of this study surveys the relevance of chemistry, biology and the inevitable connection between different fields of remediative efforts. (3 hr. lecture)

EVR1633

Hazardous Materials Emergency Response 1 4 credits
Teaches the skills needed to develop response tactics in the event of an incident in a com-

pany or community. Hazard analysis, preparing contingency plans, employee training, and testing contingency plans are part of this course. Students also learn what resources are available to assist in analyzing specific situations and in determining the correct action to be taken. This course meets the SARA requirement for response training. (2 hr. lecture; 4 hr. lab.)

EVR1639

Hazardous Materials Transportation Storage & Disposal 3 credits
Teaches the requirements related to storing, transporting, and disposing of hazardous materials. Documentation that must accompany these operations is stressed along with technical aspects of TSD. (3hr. lecture).

EVR1640

Hazardous Materials Regulations 1 3 credits
A historical overview of occupational and environmental health issues. An introduction to past and present legislation with an emphasis on the interpretation of the Department of Labor's Occupational Safety and Health Act. (3 hr. lecture)

EVR1655

Hazardous Materials Recovery Incineration & disposal 3 credits
The course is designed to explain the methods of recovery, incineration and/or disposal of hazardous waste. Topics include contracting qualified disposal organizations, obtaining permits and ensuring regulatory compliance of hazardous waste. (3 hr. lecture)

EVR1802

Industrial Processes 4 credits
Emphasis is placed on where hazardous materials are used and generated in industrial processes. Understanding the constraints of product lines are discussed. Special attention is paid to potential acute and chronic hazard exposures from various industrial processes. Prerequisites: CHM 2032, 2032L. Special fee. (4 hr. lecture)

EVR1895

Environmental Pollutants 3 credits
The Environmental Pollutants course will teach students to recognize pollutants associated with and generated by an industrial process. The emphasis of this course lies in the analytical laboratory procedures used to detect these pollutants. In addition to common industrial process description details, the course will concentrate on sample collection, sample containers and volumes required, preservatives and sampling handling. (3 hr. lecture)

EVR1930

Environmental Seminar 1-3 credits
This course reviews state-of-the-art developments and practices under study. The student will receive an overview of air, rain, runoff, solids and others as they relate to local,

state environmental considerations. (1-3 hr. lecture)

EVR2005

Hazmat Pollution Bridge 2 credits

This course provides the vocational student with the skills and knowledge to receive Associate in Science credit for EVR 1809, Industrial and Hazardous Waste; EVR 1895, Environmental Pollutants, EVR 1230, Air Pollution; and EVR 1015, Hazardous Materials and the Environment. The students must have satisfactorily completed VCC courses; Introduction to Industrial Hazardous Waste, Identification of Environmental Pollutants, Introduction to Environmental Air Pollution. (2 hr. lecture)

EVR2613

Hazardous Materials

Emergency Response 2 4 credits

This is a follow-up course to EVR 1633. In this course, students will learn how to size up a situation and how to determine needed resources. They will learn to identify NFPA warning signs and what the signs mean. Time will be spent responding to simulated emergencies involving hazardous materials, in minimizing the danger, and in completing clean-up operations. Prerequisite: EVR 1633. Special fee. (3 hr. lecture; 2 hr. lab.)

EVR2625

Infectious and

Nuclear Materials

3 credits

Students in this course learn the proper handling and disposal techniques for both infectious (biological) and nuclear (radioactive) materials. Personal hygiene and monitoring are emphasized in addition to the proper selection and use of personal protective equipment. Packaging and shipping requirements will be studied. (2 hr. lecture; 2 hr. lab.)

EVR2630

Hazardous Materials

Risk Analysis

3 credits

Hazardous materials Risk Analysis teaches students a systematic method to be used when analyzing risks associated with hazardous materials. This type of analyses that might be done as part of a planning operation where time is not a critical factor; it might be done at the scene of an incident involving the leak of a hazardous material. Students will be taught the essential resources needed for each situation and how to use them. (3 hr. lecture)

EVR2631

Hazmat Communication Bridge 1 credit

This course provides the vocational student with the skills and knowledge to receive credit in EVR 1010, Environmental Compliance; EVR 1635, Hazard Communication Standard; EVR 1640, Hazardous Materials Regulations 1; EVR 2630, Hazardous Materials Risk Analysis, and VCC courses. A survey of Hazardous Material Regulations, Elementary Risk Assessment, Hazard Communications, Environmental Compliance and the Regulatory Risk Bridge course, EVR 2860. (1 hr. lecture)

EVR2647

Environmental

Site Assessment

3 credits

This course will introduce the fundamentals of environmental site assessment, ecological monitoring and ecological risk assessment. The role of management of environmental performance will be studied. Also, the positive and negative impacts organizations have on environmental systems (e.g. resource depletion) will be studied. Finally, the students will attain improved scientific understanding of the ecosystem integrity and dynamics. Corequisites: EVR1001, 1262, Special fee. (3 hr. lecture)

EVR2695

Advanced Hazardous

Materials Analysis

4 credits

Advanced techniques in instrumental analysis. Atomic absorption, spectrometry, gas chromatography, mass spectrometry, ion chromatography, UV-Vis spectrophotometry, titrimetry, analytical technique, computer interfacing, and future trends. Prerequisite: EVR 2890. Special fee. (3 hr. lecture; 2 hr. lab.)

EVR2800

Hazmat Health Bridge

1 credit

This course provides the skills and knowledge required to allow the vocational student to achieve Associate of Science credit for EVR 2625, infectious and Nuclear Materials; ad, EVR 2805 Hazardous Materials Health Effects. The student must have completed VCC courses; Hazardous Materials Health Effects, and infectious and Nuclear Materials. (1 hr. lecture)

EVR2805

Hazardous Materials

Health Effects

3 credits

A review of the research done in determining the systematic health effects of exposures to chemicals. Determination of risk factors, routes of entry, control measures and acute and chronic effects are discussed. Emphasis is placed on toxicological terminology and how the products affect body systems. (2 hr. lecture; 2 hr. lab.)

EVR2820

Hazardous Materials Corporate

Program Development

3 credits

This course has two major areas of study: how to develop a plan for a company to respond to an incident involving hazardous materials and how to set up a training program to prepare company employees to respond to an incident. Students in this program learn the importance of establishing learning/teaching objectives, competencies for different jobs, and organizing a series of classes to achieve a teaching tool. Students will work with simulated companies and establish both plans for responding to emergencies and training programs to meet specific needs. (3 hr. lecture)

EVR2840

Hazardous Materials

Emergency Response 3

3 credits

This is a follow-up course to EVR 2613 students will learn how to size up a situation and

how to determine needed resources. They will learn the process of Incident Command. Through simulated emergencies, students will assess the incident, response to the emergency, supervise clean-up and provide public relations information. Management skills will be developed. Prerequisite: EVR 2641. (2 hr. lecture; 2 hr. lab.)

EVR2845

Elements of Emergency

Response Management Bridge 1 credit

This course provides the skills and knowledge to the vocational student to receive Associate of Science credit for EVR 2840, Hazardous Materials Emergency Response 3. The student must have satisfactorily completed VCC course; Advanced Hazardous Materials. (1 hr. lecture)

EVR2940

Environmental Internship 3 credits

This course provides an exciting opportunity for environmental science students. Through a community internship, students gain professional experience and first-hand knowledge in various environmental careers. This course pairs students with community professionals who involve them in important projects and research. Mentors are assigned and monitor, in cooperation with the MDC-Environmental Science Program, the progress and performance of each student. The students will be placed on a semester basis with several different environmental agencies both public and private. Prerequisite EVR 1001, EVR 1262. (3 hr. lecture)

ESL for Academic Purposes

EAP0100

Speech/Listening 1

3 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. (3 hr. lecture)

EAP0100L

Speech/Listening 1

Laboratory

1 credit

This lab will give practice in oral production and aural comprehension of spoken American English. This practice will be related, but not limited to the material taught in EAP 0100. (2 hr. lab.)

EAP0120

Reading Level 1

3 credits

Students develop the ability to comprehend limited written materials. (3 hr. lecture)

EAP0140

Writing Level 1

3 credits

Students develop the ability to write appropriate phrases and short sentences on personal topics. Corequisite: EAP 0140L. (3 hr. lecture)

EAP0140L**Writing Level 1****Laboratory 1-3 credits**

This lab will provide support and additional practices as well as focus on multi-skills as students develop their abilities in meeting the competencies of EAP 0140. (2-6 hr. lab.)

EAP0160**Grammar Level 1****3 credits**

Students develop the ability to understand and use basic, high frequency grammatical structures. (3hr. lecture)

EAP0200**Speech/Listening 2****3 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. (3 hr. lecture)

EAP0200L**Speech/Listening 2****Laboratory****1 credit**

Continue 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 EAP 0100L. (2 hr. lab.)

EAP0220**Reading Level 2****3 credits**

Students develop the ability to comprehend limited written materials. (3 hr. lecture)

EAP0240**Writing Level 2****3 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. (3hr. lecture)

EAP0240L**Writing Level 2****Laboratory****1-3 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 0140. Prerequisite: EAP 0140L; Corequisites: EAP 0240. (1-3 hr. lab.)

EAP0260**Grammar Level 2****3 credits**

Students continue to develop control of basic grammatical structures and statement/question patterns. Prerequisite EAP 0160. (3 hr. lecture)

EAP0300**Speech/Listening 3****3 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. (3 hr. lecture)

EAP0300L**Speech/Listening 3****Laboratory****1 credit**

Students practice speaking and listening skills necessary for participating in classroom discussions with an emphasis on clarification through rewording and asking questions. Prerequisite: EAP 0200L; Corequisite: EAP 0300; (2 hr. lab.)

EAP0320**Reading Level 3****3 credits**

Students develop the ability to read text on familiar and basic academic topics with an emphasis on vocabulary expansion and application of critical reading skills. Prerequisite: EAP 0220. (3 hr. lecture)

EAP0340**Writing Level 3****3 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. (3 hr. lecture)

EAP0340L**Writing Level 3****Laboratory****1-3 credits**

Students develop the ability to write basic, structured academic paragraphs on familiar topics and execute other academic writing tasks. Prerequisite: EAP 0240L; Corequisite: EAP 0340. (1-3 hr. lab.)

EAP0360**Grammar Level 3****3 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. (3 hr. lecture)

EAP0400**Speech/Listening 4****3 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. (3 hr. lecture)

EAP0400L**Speech/Listening 4****Laboratory****1 credit**

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: EAP 0300L; Corequisite EAP 0400. (2 hr. lab.)

EAP0420**Reading Level 4****3 credits**

Students develop academic reading abilities including text on contemporary and literary topics with an emphasis on extensive reading and the enhancement of critical reading skills. Prerequisite: EAP 0320. (3 hr. lecture)

EAP0440**Writing Level 4****3 credits**

Students develop the ability to write more

sophisticated, structured academic paragraphs in various theoretical modes and execute other academic writing tasks. (3 hr. lecture)

EAP0440L**Writing Level 4****Laboratory****1-3 credits**

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. (1-3 hr. lab.)

EAP0460**Grammar Level 4****3 credits**

Students develop the ability to use intermediate-level grammatical structure appropriate to classroom discussion and the writing of more sophisticated academic paragraphs with an emphasis on increased accuracy. Prerequisite: EAP 0360. (3 hr. lecture)

EAP0493**Accelerated Intermediate****Speech and Grammar****6 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. (6 hr. lecture)

EAP0494**Accelerated Intermediate****Reading and Writing****6 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. (6 hr. lecture)

EAP1500**Speech/Listening Level 5****3 credits**

Students develop communication, organization, and pronunciation skills necessary for effective academic presentation and discussion with an introduction to lecture note taking. (3 hr. lecture)

EAP1500L**Speech/Listening Level 5****Laboratory****1 credit**

Students develop communication, organization, and pronunciation skills necessary for effective academic presentation and discussion with an introduction to lecture note taking. (2 hr. lab.)

EAP1501**Accent Reduction 1****3 credits**

Students develop the ability to write basic structured academic essays with an emphasis on accuracy and cohesiveness and execute other academic writing tasks. (1-3 hr. lecture).

EAP1501L**Accent Reduction 1****Laboratory 1 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. (2 hr. lab.)

EAP1502**Accent Reduction 2 3 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. (3 hr. lecture)

EAP1502L**Accent Reduction 2****Laboratory 1 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. (2 hr. lab.)

EAP1520**Reading Level 5 3 credits**

Students develop the ability to comprehend lengthier texts on diverse academic topics by applying appropriate reading strategies. (3 hr. lecture)

EAP1540**Writing Level 5 3 credits**

Students develop the ability to write basic structured academic essays with an emphasis on accuracy and cohesiveness and execute other academic writing tasks. (3 hr. lecture)

EAP1540L**Writing Level 5****Laboratory 1-3 credits**

Students develop the ability to write basic structured academic essays with an emphasis on accuracy and cohesiveness and execute other academic writing tasks. (1-3 hr. lecture)

EAP1560**Grammar Level 5 3 credits**

Students develop the ability to comprehend and interpret authentic college-level text in content areas by applying appropriate reading strategies. (3 hr. lecture)

EAP1600**Speech/Listening Level 6 3 credits**

Students further develop communication skills necessary for full participation in mainstream college classrooms including comprehension of extensive discourse. (3 hr. lecture)

EAP1600L**Speech/Listening Level 6****Laboratory 1 credit**

Students further develop communication skills necessary for full participation in mainstream college classrooms including comprehension of extensive discourse. (2 hr. lab.)

EAP1620**Reading Level 6 3 credits**

Students develop the ability to comprehend and interpret authentic college-level text in content areas by applying appropriate reading strategies. (3 hr. lecture)

EAP1640**Writing Level 6 3 credits**

Students develop the ability to write a variety of college-level essays with sophistication, fluency, and accuracy and execute other academic writing tasks. (3 hr. lecture)

EAP1640L**Writing Level 6****Laboratory 1-3 credits**

Students further develop the ability to write a variety of college-level essays with sophistication, fluency and accuracy, and execute other academic writing tasks. (1-3 hr. lab.)

EAP1660**Grammar Level 6 3 credits**

Students develop the ability to use complex grammatical structure necessary for effective participation in mainstream college classes. (3 hr. lecture)

EAP1683**Combined Accelerated****Advanced Reading/Writing level 6 6 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. (6 hr. lecture)

EAP1689**Combined Accelerated Advanced Speech, Listening and Grammar Level 6 6 credits**

This is an accelerated alternative course for EAP courses 1500, 1560, 1600, and 1660. Students will learn oral communication and lexicon-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. (6 hr. lecture)

Fashion

CTE1401**Textiles 3 credits**

The identification and analysis of fibers, yarns, fabrics and finishes, with emphasis on the durability, care and price of newer fibers and blends as well as standard dress fabrics. (2 hr. lecture; 2 hr. lab.)

Film, Radio, TV Technology

DIG3255C**Sound Design 3 credits**

The practices and procedures of advanced audio production, emphasizing practical rather than theoretical operation. The student will learn advanced audio recording, mixing, editing, overdubbing and aesthetics. Prerequisite: FIL2515C or RTV1242C. (2hr. lecture; 2 hr. lab.)

DIG3347C**Digital Cinematography 3 credits**

Students will learn the skills and knowledge necessary to plan and execute image capture for visual effects that combine live action and computer generated elements using current technologies and techniques. Prerequisite: FIL2515C or RTV2246C. (2 hr. lecture; 2 hr. lab.)

DIG4345C**Digital FX & Compositing 3 credits**

Students will learn the skills and knowledge necessary to plan and execute visual effects that combine live action and computer generated elements using current technologies and techniques. Prerequisite: RTV3810C. (2 hr. lecture; 2 hr. lab.)

DIG4505C**DVD Authoring, Web Design, & Electronic Distribution 3 credits**

Students will learn how to author interactive DVDs, create a basic website and distribute audio and video content via the internet. Corequisite: FIL4586C. (2 hr. lecture; 2 hr. lab.)

FIL1030**History of Film 3 credits**

The student becomes familiar with important films, techniques and styles as well as industrial and social developments of the cinema. Special fee. (3 hr. lecture)

FIL1055**American Independent Cinema 3 credits**

This course beyond specifically examining the economic impact of independent films on the industry, will also examine the emergence of the Hollywood majors into the independent film marketplace as a means of (1) understanding the nature of their business and the inherent opportunities/threats that lie therein, and (2) designing a way of approaching the creative and business production of independent cinema. (3 hr. lecture)

FIL1060**Survey of Documentary Film 3 credits**

This course explores the historical development of the nonfiction film. Students will learn the history of the nonfiction film from its origins in the late 1800s to the present with an emphasis on the works of American and European filmmakers. Films will be presented and discussed in the socio-political and cinematic context of their release time. (3 hr. lecture)

FIL1100**Screenwriting 1: Understanding Dramatic Structure 3 credits**

This is a beginning workshop class covering narrative script writing for film and television. Working in a collaborative group environment, students will concentrate on developing a short-format screenplay and will learn three-act dramatic story structure, script elements, their applications and standard industry formatting. (3 hr. lecture)

FIL1420C**Film Production 1: Introduction to the Filmmaking Process 4 credits**

An introduction to the art and tools of narrative filmmaking. Students will learn industry procedures and protocols as well as visual storytelling and editing in the production of several silent Super 16mm films. Pre/Corequisite: FIL 2552C with grade of "C" or better. (2 hr. lecture; 4 hr. lab.)

FIL1431C**Film Production 2: Basic Cinematography and Sound 4 credits**

This course is an introduction to sync-sound filmmaking. Students will learn the fundamentals of cinematography and sync-sound recording in the production of Super 16mm films. Prerequisites: FIL 1420C and FIL 2552C, both with a grade of "C" or better. (2 hr. lecture; 4 hr. lab.)

FIL2131**Screenwriting 2: Character Development 3 credits**

The student will learn character development for narrative motion picture screenplays with emphasis on dialogue, motivation and development of character analysis. Prerequisite: FIL 1100. (3 hr. lecture)

FIL2407**Film/Pre-Production 2 credits**

This class prepares students for the film production process by introducing them to the technical and organizational aspects of filmmaking that need to be completed before the first day of production. Students will learn all aspects of pre-production planning and preparation including analyzing and interpreting scripts, storyboards, fax-sheets and set designs, casting, wardrobe and makeup considerations and they will learn to prepare a location and studio set-up. (1 hr. lecture; 2 hr. lab.)

FIL2413**Screenwriting and Storyboarding 3 credits**

This course will introduce techniques involved in screenwriting and storyboards to include the analysis of already published works in other media for adaptation to film/video. Prerequisite: FIL 1100 or department approval. (3 hr. lecture)

FIL2480C**Film Production 3 4 credits**

This course covers directing for film. Students will learn how to direct a film, from the pre-production stage through the shooting process and post-production, by producing individual short films. Prerequisites: FIL 1431C, 2553C with a grade of "C" or better. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

FIL2515C**Film Production 4 4 credits**

This course emphasis preproduction and production protocols, direction of actors, rehearsals, camera staging, scene coverage and shooting for continuity. Working in teams, the students learn to apply the knowledge acquired in previous film courses to the production of short narrative sound films in Super 16mm of portfolio quality. Prerequisite: FIL 2480C and FIL 2553C with a grade of "C" or better. (2 hr. lecture; 4 hr. lab.)

FIL2552C**Editing: Level 1 3 credits**

Students will learn basic theory and practice of non-linear editing, and the basic workflow of capturing, editing, titling and outputting, while utilizing Final Cut Pro editing software. Laboratory fee. (2 hr. lecture; 1 hr. lab.)

FIL2553C**Editing: Level 2 3 credits**

Students will learn intermediate level theory and practice of non-linear editing, with an emphasis on editing sound for narrative productions, using Final Cut Pro editing software. Prerequisite: FIL 2552C with a grade "C" or better. Laboratory fee. (2 hr. lecture; 2 hr. lab.)

FIL2560C**Editing: Level 3 3 credits**

This course focuses on editing techniques using the Avid platform. Students will transfer their Final Cut Pro proficiency gained in Editing 1 and 2 to the Avid platform, while learning to perform functions exclusive to the Avid. Prerequisite: FIL 2553C with a grade of "C" or better. Laboratory fee. (2 hr. lecture; 2 hr. lab.)

FIL2572C**Advanced Video Post-Production 3 credits**

Students will learn advanced theory and practice of non-linear editing. The course will concentrate on effects, color correction and editorial working practices. Prerequisite: FIL 2552C, 2553C with a grade of "C" or better. Laboratory fee. (2 hr. lecture; 2 hr. lab.)

FIL2611**Film Business Marketing Distribution Exhibition 3 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. (3 hr. lecture)

FIL2945**Film Internship 3 credits**

Students are placed in industry positions to work 15 hours per week for on-the-job training. Prerequisite: FIL 1431C or departmental approval. (15 hr. per week)

FIL2949**Co-op Work Experience 2: FIL 3 credits**

This course is 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. Prerequisites: 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 Cooperative Education Office to obtain registration approval. Prerequisite: FIL 2515C. (3 hr. lecture)

FIL3602**Business Practices & Production Management 3 credits**

This course prepares the student to enter the workforce effectively as an independent contractor in the Film, TV & Digital Production industries. Students will learn the process of preparing and running a production. Prerequisite: FIL2611 or MMC2000. (3 hr. lecture)

FIL3651**Grant Proposals & Funding 3 credits**

The student will learn to write grant proposals and secure funding for non-fiction Film/TV productions. Prerequisite: FIL2611 or MMC2000. (3 hr. lecture)

FIL4164**Fiction Scriptwriting 3 credits**

The student will learn the fundamentals of story structure and character development. Students will utilize those fundamentals to refine a writing proposal, character analysis and detailed outline for a feature length motion picture. Prerequisite: FIL2131 or RTV2226. (3 hr. lecture)

FIL4585C**Production Workshop 1 4 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: DIG3255C, 3347C; (2 hr. lecture; 2 hr. lab.)

FIL4586C**Production Workshop 2** 4 credits

In this post-production course, students will learn and apply industry-standard post-production techniques to complete the films started in production Workshop 1. Students will go through a work-assessment process to ensure the completion of the production. Prerequisite: FIL4585C; Corequisite: DIG4505C. (2 hr. lecture; 2 hr. lab.)

RTV1100**Writing for Electronics Media** 3 credits

This course should enable you to write comfortably for the media in a variety of formats. You will be introduced to analysis and preparation of scripts that emphasizes common principles of wording for mass media of communication and formats peculiar to each medium. You should learn basic broadcast principles of copy preparation, first for radio and then for the added requirements of television news. Particular attention will be given to commercials and public service announcements. There will be opportunities to study and write documentaries and other long-form programs. At the end of the course, you should understand what goes into a script and have the ability to write a workable script in the medium of your choice. (3 hr. lecture)

RTV1240C**Radio Production** 3 credits

Basic operational procedures and practices of audio control room functions, the studio areas of radio, television, film and sound recording operations. Laboratory fee. (2 hr. lecture; 2 hr. lab.)

RTV1241C**TV Studio Production 1** 4 credits

The practices and procedures used in the operation of broadcasting equipment in the television equipment in the television studio and control room emphasizing practical rather than theoretical operational elements of the television program. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

RTV1242C**TV Studio Production 2** 4 credits

Studio production with emphasis on producing a pre-scripted show. Equipment operations are stressed including on-air video effects and expanded switcher capability. Prerequisites: RTV 1100, 1241C. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

RTV2205C**Television Workshop** 3 credits

Production of TV shows from the script to the taping and the fully edited master. Includes post production if required. This course combines learning outcomes from all previous production courses through professional level productions. Prerequisite: RTV 2246C. Laboratory fee. May be repeated for credit. (1 hr. lecture; 4 hr. lab.)

RTV2230C**Radio and Television****Announcing** 3 credits

Training in microphone technique and speech, including pronunciation and enunciation intonation and inflection for radio and television broadcasting. Practice in writing, rewriting, copy editing and delivering major types of copy-news, sports, and commercials. Special fee. (2 hr. lecture; 2 hr. lab.)

RTV2243C**Television Directing** 3 credits

Basic operational procedures and practices of directing for television. Prerequisite: RTV 1242C. Laboratory fee. (2 hr. lecture; 2 hr. lab.)

RTV2245C**Electronic Field Production 1** 4 credits

This course covers single-camera field production and electronic news gathering for television. Students will learn writing, producing and editing for single-camera television production. Prerequisite: RTV 1242C, FIL 2552C. (2 hr. lecture; 4 hr. lab.)

RTV2246C**Electronic Field Production 2** 4 credits

Students will learn advanced single-camera and multi-camera productions on location with full editing and other post-production techniques. Prerequisite: RTV 2245C. (2 hr. lecture; 4 hr. lab.)

RTV2252**TV/Video Pre-Production** 2 credits

Students will learn all aspects of pre-production planning and preparation including analyzing and interpreting scripts, storyboards, fax sheets, and set designs, casting wardrobe and make up considerations and they will learn to prepare a location and studio set-up. (1 hr. lecture; 2 hr. lab.)

RTV2300**Broadcast News** 3 credits

Basic and practical familiarization with the mechanics and procedures of the news room. Adaptation of local and wire copy for audio and film, placement of commercials, news service, style guides, news copy editing, approaches to information sources, methods of applying for jobs are discussed. Students will work together to produce a complete studio newscast. Special fee. Prerequisites: RTV 1100, 1241C. (1 hr. lecture; 2 hr. lab.)

RTV2940**Internship** 3 credits

Students will gain industry experience working in a broadcasting business or on a project under the supervision of a professional. Minimum requirements are 15 hours per week and departmental approval. (3 hr. lecture)

RTV2941**Fall Television Practicum** 3 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.A.S. degree credit only. Prerequisite: RTV 1242C. (6 hr. lab.)

RTV2942**Spring Television Practicum** 3 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.A.S. degree credit only. Prerequisite: RTV 1242C. (6 hr. lab.)

RTV2943**Summer Television Practicum** 3 credits

This course is an advanced internship with limited enrollment requiring departmental approval. Students will learn advanced directing and floor management techniques, while assisting in the production of shows for Cable-TAP television, Miami-Dade County's official community access channel. Prerequisite: RTV 1242C.A.S. degree credit only. (6 hr. lab.)

RTV3408**Ethics & Research for****Non-Fiction Scripts** 3 credits

Students will learn the importance of acquiring and applying proven research methods for reliable fact-finding while respecting social, cultural and environmental responsibilities as well as finding ethical resolutions to issues that arises in non-fiction Film/TV production. Prerequisite: FIL2611 or RTV2226. (3 hr. lecture)

RTV3810C**Broadcast Design & On-Air Promotions** 3 credits

This course explores the elements of graphic design for video and film. Through the use of graphic design software, students will create projects for on-air promotions with specific emphasis on layout, color and composition. Prerequisite: VIC1205C. (2 hr. lecture; 2 hr. lab.)

VIC1000**Visual Communications** 3 credits

An introductory level course for persons being trained in the visual aspects of film and video production and related fields specifically dealing with design elements and principles in the moving image. Emphasis is on sight, sound and motion. (2 hr. lecture; 2 hr. lab.)

VIC1205C**Video Compositing and Motion Graphics 1** 3 credits

This course is an introduction to visual effects for film and television. The student will learn basic level techniques of still and motion graphic design in visual effect compositing for film and video using Photoshop and After Effects. Prerequisite: FIL 2552C. Laboratory fee. (2 hr. lecture; 2 hr. lab.)

Finance

FIN2000

Principles of Finance 3 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. (3 hr. lecture)

FIN2010

Investments in Stocks and Bonds 3 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. (3 hr. lecture)

FIN2051

International Financial Management 3 credits

The 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. (3 hr. lecture)

FIN2100

Personal Finance 1-3 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. (1-3 hr. lecture)

Fire Science

FFP1505

Fire Prevention 3 credits

Florida State Fire Marshals regulations as they relate to fire prevention. Surveys of other authoritative sources, codes and ordinances such as the National Fire Code, miscellaneous model codes, under write's laboratory, and the fire prevention intent of various codes. (3 hr. lecture)

FFP1710

Supervision-Leadership for Fire Officers 3 credits

Analysis of the broad concepts of supervision and leadership to analyze the kinds of effective leadership-followership needed in the fire services, and how roles and attitudes must change in the high stress conditions to which fire fighters are routinely exposed. One of four courses recommended by the Florida Fire Standards Council for Pre-Officer Training. (3 hr. lecture)

FFP2120

Building Construction for Fire Science 3 credits

A study of buildings fire codes; life safety and OSHA fire protection codes; a study of basic

building construction files and the behavior of building materials during a fire; a survey of research and standards development. (3 hr. lecture)

FFP2301

Fire Hydraulics 3 credits

The basic theories of hydraulic as applied to the fire services. The mathematics and formulas necessary to solve fire stream calculations and any such variables. Prerequisites: MTB 1321 or equivalent ability to square numbers and perform square root is required. (3 hr. lecture)

FFP2305

Fire Apparatus and Equipment 3 credits

Various mechanical, hydraulic, pneumatic and electrical systems found on heavy duty, high performance fire apparatus. Why and how major parts work, their relationship, and the emergency procedures followed to make equipment apparatus are studied. Prerequisite: FFP 2301. (3 hr. lecture)

FFP2401

Hazardous Materials 1 3 credits

An introduction to flammable hazardous materials and the basic chemical and physical properties of matter as found in solid, liquid or gaseous forms. Hazardous environmental conditions and the interaction of materials are discussed. (3 hr. lecture)

FFP2402

Hazardous Materials 2 3 credits

A further study of hazardous materials with emphasis on unstable chemicals; explosive substances and their handling; exotic fuels (solids and liquid propellants); pesticides, corrosive toxic and radioactive substances. Standard operating procedures for fire departments will be discussed. Prerequisite: FFP 2401. (3 hr. lecture)

FFP2510

Fire and Building Codes 3 credits

The national, state and local municipal fire codes with emphasis on local laws and ordinances related to life-safety features designed into structures of all types. Emphasis is on the fire prevention requirements of the South Florida Building Code. Prerequisite: FFP 1710. (3 hr. lecture)

FFP2521

Blueprint Readings and Plans Review 3 credits

A study of building construction plans review and examination with an emphasis on building integrity, Life Safety and code compliance. Prerequisite: FFP 2810. (3 hr. lecture)

FFP2540

Fire Detection and Suppression Systems 3 credits

Various electronic fire detection devices and systems; the kinds and operation of various mechanical and automatic suppression systems, and the chemical reactions that various suppressants make when in contact with hazardous materials. (3 hr. lecture)

FFP2590

Fire Inspector Preparation 1-9 credits

Life/fire safety and building codes used by all fire department inspectors in Greater Miami-Dade County as well as inspection process, procedures and reporting requirements for each occupancy classification. Successful completion of the course leads to specialized certification as a Fire Inspector. Prerequisite: Permission of department chairperson. (1-9 hr. lecture)

FFP2604

Arson Detection and Investigation 3 credits

An introduction to arson laws and types of incendiary fires. Students study methods of determining fire cause, recognizing and preserving evidence, the phenomenon of pyrolysis; normal patterns of structural fires; interviewing witnesses, court procedures and giving court testimony. Prerequisite: FFP 2301. (3 hr. lecture)

FFP2700

Fire Department Management 3 credits

The municipal supervision-management policies, practices and procedures necessary to keep the firefighting team ready to implement fire prevention/suppression activities. One of four courses recommended by the Florida Fire Standards Council for Pre-Officer Training. Prerequisite: FFP 1710. (3 hr. lecture)

FFP2740

Fire Service Instructor 3 credits

The instructors' responsibilities in transmitting good study habits, class communication; human relations; learning and teaching concepts; job analysis, identifying teaching objectives; teaching methods and techniques; instructional aides and criteria and performance based evaluations. One of the four elements of instruction required by the Florida Fire Fighter Standards Council for Pre-Officer eligibility. Prerequisite: ENC 1101. (3 hr. lecture)

FFP2741

Fire Service Instructor (Course Design) 3 credits

Fire Service Instructor (Course Design) emphasizes techniques that will assist the Fire Service Instructor develop skills in curriculum development including the importance of an active training program. Students will learn the principles of effective curriculum design for adult and student centered learning. They will understand how to design courses and units related to learning, teaching, performance, and behavioral objectives. The State Fire Marshal, Bureau of Fire Standards and Training require this course for instructor II and III certification. This certification enables the instructor to teach higher-level courses (i.e.: Fire Officer I and II, Fire Inspector). (3 hr. lecture)

FFP2810

Fire Fighting Tactics and Strategy 3 credits

The principles of efficient utilization of man-

power, equipment, and apparatus with emphasis on pre-fire planning, decision making and problem-solving related to fire-ground tactics. One of four courses recommended by the Florida Fire Standards Council for Pre-Officer Training. Prerequisite: Sophomore standing in program or employed Fireman. (3 hr. lecture)

Food Service

FSS1100

Foodservice Purchasing 3 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. A.S. degree credit only. (3 hr. lecture)

FSS1200

Culinary Terminology and Procedures 3 credits

This is an introductory course in which students will learn to integrate industry vocabulary, terminology, knowledge, skills, and practices required for careers in the food service industry. 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. Corequisite: FSS 1202L. A.S. degree credit only. (3 hr. lecture)

FSS1202L

Food Production 1 3 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. A.S. degree credit only. (3 hr. lab.)

FSS1204L

Food Production 2 3 credits

This is a lab course in which students will learn advanced skills in classical knife cuts and techniques, tool and equipment handling and applied principles of cooking techniques. This course emphasizes equipment use and care, standardized recipes, portion control, work plans, menus, demonstration techniques, procurement procedures, knowledge in sustainability, timing and production schedules. Prerequisites: FSS 1200, FSS 1202L. A.S. degree credit only. (3 hr. lab.)

FSS1242C

International Cuisines 3 credits

This is an intermediate course in which students will reinforce knowledge of tools,

equipment, vocabulary and theories learned in prerequisite courses. Students will learn to use new regional ingredients, cooking procedures and indigenous cooking tools used in various international cuisines. The menus used will give the students an introduction to the fundamentals of modern continental cuisine. Prerequisites FSS 1200, 1202L, 1204L. A.S. degree credit only. (1 hr. lecture; 2 hr. lab.)

FSS1246C

Basic Baking 3 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 dough, breads, cookies, pies, puff pastries, sweet and savory pastry fillings, quick breads, cakes and basic decorating techniques. Prerequisite FSS 1200, 1202L. A.S. degree credit only. (1 hr. lecture; 2 hr. lab.)

FSS1248C

Garde Manger 3 credits

This is an advanced course in the preparation of cold food, hors d'oeuvres, display platters, charcuterie, smoking techniques, butchery and seafood. Students will learn to prepare edible buffet centerpieces. Students will also learn hands-on experience in ice carving. Production methods and safe food handling techniques are re-emphasized. Prerequisites: FSS 1200, 1202L, 1204L. A.S. degree credit only. (1 hr. lecture; 2 hr. lab.)

FSS2381L

Culinary Management Practicum 4 credits

This required Practicum course is designed to provide advanced hands-on culinary training for Culinary students through work experience. The student will participate in the final production process of the MDC restaurant and catering operations. Students will actively participate in planning, development, cost controls and presentation of a major event at the College. Prerequisite: FSS 2205L. A.S. degree credit only. (3 hr. lab.)

Foreign Languages (In Translation)

FOT2802

Introduction to Translation 3 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. (3 hr. lecture)

FOT2821

Introduction to Interpretation 3 credits

The acquisition and development of the abilities to convert an oral message from the source language into another consecutive oral message in the target language. (3 hr. lecture)

FOT2822

Court Interpreting Skills 3 credits

Continuation of FOT 2821 including deepening and broadening the type of exercise of FOT 2821 and gradual introduction to simultaneous interpretation. Oral translation with notes and conversations, ratio or tape passages. Extensive practice in the process of hearing, understanding, remembering and speaking for simultaneous oral interpretation. Participation in an internship or practical training program. (3 hr. lecture)

FOT2823

Consecutive Interpretation 3 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 mono lateral and bilateral consecutive interpretation. Prerequisite: FOT 2821. (3 hr. lecture)

FOT2824

Simultaneous Interpretation Strategies 3 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. (3 hr. lecture)

FOT2825

Computer Assisted Translation 1 3 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. (3 hr. lecture)

FOT2826

Legal Translation 3 credits

Continuation of FOT 2802. Written translations of multi-page documents and/or articles containing legal, technical and other specialized vocabulary from the source language

into the target language. Firsthand translation experience by participating in a "translator's bureau," or an "internship" or practical training program. (3 hr. lecture)

FOT2827

Medical Translation 3 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. (3 hr. lecture)

FOT2828

Medical Interpretation 3 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). (3 hr. lecture)

FOT2829

Financial and Business Translation 3 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. (3 hr. lecture)

French Language & Literature

FRE1120

Elementary French 1 4 credits
An integrated (multi-media) approach to acquire proficiency in the basic skills (of the language)-listening/understanding, speaking, reading, writing and across-cultural awareness. Emphasis on practical vocabulary and accurate pronunciation. Practice in class and laboratory in understanding and using the spoken language; reading and writing with progressive grammatical explanations. (4 hr. lecture)

FRE1121

Elementary French 2 4 credits
A continuation of FRE 1120. A proficiency-oriented course emphasizing the mastery of

the basic skills of the language. Prerequisite: FRE 1120. (4 hr. lecture)

FRE2220

Intermediate French 1 4 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. (4 hr. lecture)

FRE2221

Intermediate French 2 4 credits
Understanding, speaking, reading writing and cross-cultural awareness, through a systematic review of reading and writing skills with emphasis on oral as well as written expression. Prerequisite: FRE2220. (3 hr. lecture)

FRE2240

French Oral Expression 1 3 credits
Developing skills in conversation. Oral structures. Vocabulary expansion. Phonetic correction. Level 1. Offered through Overseas Study Program. (3 hr. lecture)

FRE2241

French Oral Expression 2 3 credits
Developing skills in conversation. Oral structures. Vocabulary expansion. Phonetic correction. Level 2. Offered through Overseas Study Program. (3 hr. lecture)

FRW2010

Selected Readings in French Literature 1 3 credits
A study of outstanding works authors, genres, or literary currents in France. (3 hr. lecture)

FRW2011

Selected Readings in French Literature 2 3 credits
A study of outstanding works, authors, genres, or literary currents of French expression in francophone nations or areas. (3 hr. lecture)

Funeral Services Education

FSE1000

Introduction to Funeral Services 3 credits
The principles of funeral service and its history. A study of the ethical obligations and fundamental requirements, involving skill, aptitudes, and qualifications of funeral directors. A.S. degree credit only. (3 hr. lecture)

FSE1080

Funeral Law 3 credits
Federal, state and municipal statutes, rules, regulations and ordinances pertaining to funeral service; torts, contract and administrative laws, and financial disclosures pertinent to funeral operations and management. A.S. degree credit only. (3 hr. lecture)

FSE1105

Funeral Service Chemistry 3 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. A.S. degree credit only. (3 hr. lecture)

FSE2060

Funeral Directing 3 credits
Study of various religious, fraternal, military, traditional, nontraditional and humanistic variations of funeral ceremonies, including cultural, ethnic and geographic customs. A.S. degree credit only. (3 hr. lecture)

FSE2061

Thanatology 3 credits
Psychological and sociological dynamics of death, dying, and bereavement. Dynamics of counseling demonstrated through role-playing video critique and analysis. Prerequisite: FSE 1000. A.S. degree credit only. (3 hr. lecture)

FSE2100

Embalming 1 3 credits
Orientation to basic embalming skills, case analysis, chemical composition, post-mortem changes, instrumentation and disinfection. Corequisite: FSE 2100L. A.S. degree credit only. (3 hr. lecture)

FSE2100L

Embalming 1 Lab 2 credits
Laboratory for FSE 2100. Laboratory fee. Corequisite: FSE 2100. A.S. degree credit only. (4 hr. lab.)

FSE2106

Funeral Service Microbiology 3 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, public health in the embalming practice. (3hr. lecture).

FSE2120

Restorative Art 3 credits
Anatomical study of human features; familiarization with instruments, human proportions, special materials and techniques. Corequisite: FSE 2120L. A.S. degree credit only. (3 hr. lecture)

FSE2120L

Restorative Arts Lab 1 credit
Laboratory for FSE 2120. Practice and techniques in reconstructive modeling. Corequisite: FSE 2120. Laboratory fee. A.S. degree credit only. (2 hr. lab.)

FSE2140

Embalming 2 3 credits
Emphasis on embalming considerations and procedures for pathogenesis and advanced decomposition, use of specialized chemicals, treatment of post-mortem cases and advanced techniques. Corequisite: FSE2140L. A.S. degree credit only. (3 hr. lecture)

FSE2140L

Embalming 2 Lab 2 credits
Laboratory for FSE 2140. Corequisite: FSE 2140. Laboratory fee. A.S. degree credit only. (4 hr. lab.)

FSE2160

Pathology 4 credits
General, systemic and forensic pathology with emphasis on analysis of pre- and post-mortem histology, cytology and etiology; causative factors relating to death and determination of cause of death. Prerequisite: BSC 1084. A.S. degree credit only. (4 hr. lecture)

FSE2200

Funeral Service Accounting 3 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. A.S. degree credit only. (3 hr. lecture)

FSE2201

Funeral Home Operations 3 credits
Theoretical and practical training in all areas of funeral home operations; laboratory experience in merchandising and funeral arrangements. Corequisite: FSE 2200. A.S. degree credit only. (3 hr. lecture/lab.)

FSE2202

Funeral Service Business Management 3 credits
The role and function of an effective manager is explored. Emphasis is placed on the management functions of planning, organizing, motivating, directing, and controlling. How to purchase a small business is also covered. A.S. degree credit only. (3 hr. lecture)

FSE2203

Funeral Home Application 4 credits
This is a preparation course for funeral directing. Students will learn taking first calls, buying and selling of merchandise, funeral arranging, conducting funerals, job interviewing, computer software, and resume writing. Prerequisites: FSE 2060, 2061, 2200, 2202. A.S. degree credit only. (4 hr. lecture)

FSE2931

Funeral Service Professional Review 1 1 credit
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 science 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. (2 hr. lab.)

FSE2932

Funeral Science Professional Review 2 1 credit
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. (2 hr. lab.)

General Business

GEB1011

Principles of Business 3 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. Special fee. (3 hr. lecture)

GEB1949

Co-op Work Experience 1: GEB 3 credits
This course is 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. (3hr. lecture).

GEB2112

Introduction to Entrepreneurship 3 credits
This is a foundation course in the modern treatment of business entrepreneurship. Students will learn the elements of start-up/buy-out, franchising, business plans, marketing plans, human resources, financial planning, legal forms, products/services, selling, advertising, management policies, accounting systems, tax issues, capital management, computers, risk management and business ethics. (3 hr. lecture)

GEB2350

Introduction to International Business 3 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. (3 hr. lecture)

GEB2949

Co-op Experience 2: GEB 3 credits
This course is 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. Prerequisites: 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. (3 hr. lecture)

Geography

GEO2000

Basic Concepts in Geography 3 credits
This course is designed as an introduction to the basic concepts in geography. The course is specifically aimed at those individuals who teach or will teach social studies skills in primary and secondary schools, and was developed to improve the delivery of geographic education. (3 hr. lecture)

GEO2420

Introduction to Cultural Geography 3 credits
This course is an introduction to cultural geography and is structured around the five basic themes in geography: location, place, human-environment interaction, movement and regions. The student will be exposed to the differences between places, the dynamic aspects of culture and the physical environment. The course will heighten the student's awareness of the visible expressions of culture and landscape. (3 hr. lecture)

Geology

ESC1000

General Education Earth Science 3 credits
Selected concepts and principles of earth science taken from the areas of astronomy, geology, meteorology and oceanography. (3 hr. lecture)

ESC1000L

General Education Earth Science Lab 1 credit
Optional laboratory for GLY 1001. Corequisite: GLY 1001. Laboratory fee. (2 hr. lecture)

GLY1010

Physical Geology 3 credits
The fundamental concepts of geological process and structures. Plate tectonics is integral to this course which is intended for both majors and non-majors. Majors are strongly advised to take GLY 1010L. (3 hr. lecture)

GLY1010L

Physical Geology Laboratory 1 credit
Laboratory for GLY 1010. Studies of common minerals and rocks and topographic and geologic maps along with aerial photography. Corequisite: GLY 1010. Laboratory fee. (2 hr. lab.)

GLY1100**Historical Geology 3 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. (3 hr. lecture)

GLY1100L**Historical Geology****Laboratory 1 credit**

A laboratory course designed to accompany GLY1100 in the study of the History of the Earth. The student will learn the fundamentals of fossil identification, evolution, calculation of radiometric dates, interpretation of the stratigraphic record, and the role of plate tectonics in the evolution of life. (2 hr. lab.)

GLY3171**Geomorphology of the United States 3 credits**

This course involves a study of the origin, evolution and description of landforms that comprise the geomorphic features of the United States. Specific competencies include the study of the major geological processes, agents that form and fashion land, the examination of present day landforms, and the concepts of landform evolution. This course will include the examination of the physiographic provinces of the United States, such as the Appalachian highlands, the Rocky Mountains, Alaska and the Hawaiian Islands. Prerequisite: GLY1010. (3 hr. lecture)

GLY3884**Environmental Geology 3 credits**

A study of the application of geology to the interactions between people and their physical environment. Earth materials and processes are presented in reference to hazards and concerns that are created naturally and/or by human activities. The role of humans as geologic agents, resource conservation, ecosystem management, and the problems that result from upsetting the established equilibria of geologic systems are illustrated. Prerequisite: GLY 1010; Corequisite: GLY 3380L. (3 hr. lecture)

GLY3884L**Environmental Geology Laboratory****1 credit**

A laboratory course designed to accompany GLY3884 in the study of the major concepts and principles in Environmental Geology. It is designed for students enrolled in the Baccalaureate Degree Program in Science Education with a major in Earth Science. (2 hr. lab.)

GLY4045**Moons, Planets & Meteors:****An Introduction to Planetary Science 3 credits**

An upper level course that explores both modern and historical views on the origins of meteorites, the moon, the planets and other bodies of the solar system. The importance of

space science as a tool in the study of earth science and the importance of earth science as a tool in the exploration of the universe is discussed. (3 hr. lecture)

GLY4701C**Geomorphology 4 credits**

This course is a study of planetary surfaces and processes that create landforms. The students will focus on survey of geomorphic forms and the processes that originated them, application of remote sensing and GIS/GPS technology to study geomorphological processes, analytical skills including field experience, and practical applications, especially to geological hazards. (3 hr. lecture, 1 hr. lab.)

German Language

GER1120**Elementary German 1 4 credits**

An integrated (multi-media) approach to acquire proficiency in the basic skills (of the language)—listening/understanding, speaking, reading, writing, and cross-cultural awareness. Emphasis on practical vocabulary and accurate pronunciation. Practice class and laboratory in understanding and using the spoken language; reading and writing with progressive grammatical explanations. (4 hr. lecture)

GER1121**Elementary German 2 4 credits**

A continuation of GER 1120. A proficiency-oriented course emphasizing the mastery of the basic skills of the language. Prerequisite: GER 1120. (4 hr. lecture)

GER2220**Intermediate German 1 4 credits**

Students will understand, speak, read, write, and gain cultural awareness of German through a systematic review (using an integrated, multimedia approach) of reading, grammar, and writing skills with emphasis on oral and written communication. Prerequisite: GER 1121 or equivalent. (4 hr. lecture)

GER2221**Intermediate German 2 4 credits**

Understanding, speaking, reading, writing and cross-cultural awareness, through a systematic review of reading and writing skills with emphasis on oral as well as written expression. Prerequisite: GER 2220. (3 hr. lecture)

Graphic Arts

CGS2833**Intranet/Extranet Creation 4 credits**

This advanced course teaches students a more comprehensive process of preparing and implementing CGI scripts into Web pages. Learn basic web scripting through decoding forms, sending e-mail, and reading and writing files. Design a scripted Web

page, write the scripts, upload and run them. Debug scripts. By the end of the course, students are able to write their own guest books and surveys. Prerequisites: Graphic Interface Design 2. Special fee. (2 hr. lecture; 4 hr. lab.)

GRA1111C**Graphic Design 1 4 credits**

An introduction to basic theory and skill techniques of visual communications. Students learn to delineate natural and man-made objects (the structure of our environment) in proper visual relationship using pencil and paper. By solving basic visual communication problems involving perspective, proportion, and representative drawing, students develop the basic skills necessary for success in graphic communication. Prerequisites: Acceptable secondary school proficiency in arithmetic, reading and writing, as well as drawing ability (by portfolio) are desirable. Special fee. (2 hr. lecture; 4 hr. lab.)

GRA1113C**Graphic Design 2 4 credits**

Studio projects, in which the student creates graphic communication designs (ads, brochures, TV graphics, illustrations, etc.) using contemporary mediums, techniques and tools. Prerequisite: GRA 1111C. Special fee. (2 hr. lecture; 4 hr. lab.)

GRA1206C**Principles of Typography 4 credits**

Printer's measurements and arithmetic, distinguishing typesetting from typography, type classification and identification, copy fitting, mark-up and vocabulary. Laboratory classes consist of computer type setting machine operation, various typesetting projects and problems. Prerequisite: GRA 1330. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

GRA1280C**Introduction to Digital Imaging 4 credits**

Photographic theory and practice, including camera operation, developing, enlarging, printing, copying, scaling, the reproduction of line copy and the stripping-in processes used in lithography. Prerequisite: GRA 1330. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

GRA1750**Introduction to Graphic Internet Technology 3 credits**

Introduce Internet architecture, addressing domain names, e-mail, Web browsers, and Internet safety and security. Surf the World Wide Web with four standard web browsers, send and receive e-mail, download files with File Transfer Protocol, search for information using a number of different search engines, set up a Web page, and use HTML programming—including formatting, graphics, lists, forms, tables and backgrounds. Introduce the basic concepts of client/server computing. Examine components, technologies, and system standards involved in client/server computing. This course will also introduce students to the practices and procedures for planning websites. Students will learn

to appreciate the aspects of a well-designed website. Special fee. (2 hr. lecture; 2 hr. lab.)

GRA1751

Graphic Interface Design 1 4 credits
Basics of Web Page Design and Internet Architecture. Introduces students to the design process and how it functions. Students will learn how to create for the World Wide Web with standard Web creation applications add several elements from other graphic creation programs and combine those elements in an attractive and functional manner. This course will also expand students' concepts of the practices and procedures for planning websites. Prerequisites: GRA 1750, 2577C. Special fee. (2 hr. lecture; 4 hr. lab.)

GRA1752

Graphic Imaging 1 4 credits
Introduce students to the hardware and software necessary to produce static and animated images. Students are introduced to the use of digital cameras and scanners to produce images suitable for viewing on all computer platforms. Students are also introduced to creative and production aspects of digital imaging for image databases, GIF images, and vector based dynamic graphics. Required for students in the Graphic Internet Technology degree. Recommended for publishing, Web design or advertising industry personnel who wish an introduction to Internet Imaging. Prerequisites: GRA 1750, 2577C. Special fee. (2 hr. lecture; 4 hr. lab.)

GRA1753

Graphic Imaging 2 4 credits
Create and prepare dynamic graphics, SWF interactive movies, and Quick Time player video for the Internet. Produce vector and pixel based professional web graphics to standards for distribution on or use on the Internet. Students are introduced to vector and pixel based applications used to produce animated images and movies for a controlled length of time. Students learn pre-planning, storyboarding, and production of dynamic graphics with time based application. Use creative approaches to solve client requirements with interactivity. This is a required course for students in the Graphic Internet Technology degree. Recommended for publishing, Web design or advertising industry personnel who wish to produce vector and pixel based professional Web graphics. Prerequisite: GRA 1752. Special fee. (2 hr. lecture; 4 hr. lab.)

GRA1754

Graphic Interface Design 2 4 credits
Introduce a comprehensive process of Web Page Design and Internet Architecture. Continue to teach students the design process and how it functions. Students will learn how to create complex commercial sites for the World Wide Web with a standard Web creation application and an image editing application and combine those elements in an attractive and functional manner. This course will also expand students' concepts of the practices and procedures for planning elaborate websites. Prerequisites: GRA 1751, GRA 1752. Special fee. (2 hr. lecture; 4 hr. lab.)

GRA1949

Co-op Work Experience 1: 3 credits
GRA
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 Cooperative Education Office to obtain registration approval. (3 hr. lecture)

GRA2117C

Computer Assisted Graphic Design 4 credits
One of the most exciting aspects of electronic publishing is the ability to create and manipulate full color graphic illustrations. Students will receive training on Adobe Illustrator and Aldus Freehand, two encapsulated PostScript illustration programs which are standard in the industry. Class lectures will be supported with extensive handouts and audiovisual presentations. Lab classes consist of a series of full color projects designed to highlight the features of each program. Prerequisite: GRA 2203C. Special fee. (4 hr. lecture)

GRA2121C

Professional Desktop Publishing Media 4 credits
Professional Desktop Publishing Media is an advanced course in electronic publishing for professionals in the printing and publishing industry who need to update or renew occupational skills and for advanced graphic design students. Instructions include micro-computer based applications that allow users to design, layout, illustrate, and typeset publications, advertisements, overhead transparencies and commercial electronic artwork. Students will work with a standard page layout program and will learn electronic graphic design techniques and publishing requirements for full-color, high-resolution output. Prerequisite: GRA 1330. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

GRA2151C

Digital Graphic Painting 4 credits
Students, working from photographs, represent the natural world on the newest artistic media: the personal computer. Fractal Design's Painter software enables students to use a wide variety of digital tools and surfaces to create electronic illustrations. The software includes tools that simulate the techniques of impressionist, pointillist, and photo-realist artists, as well as those of Van Gogh and Seurat. The course will benefit creative and be changing every day because of advancement in technology as well as improving the employability of Graphic Arts Technology and Graphic Design Technology majors. Lab classes consist of projects designed to highlight the features of software programs. Prerequisite: GRA 2156C. (2 hr. lecture; 4 hr. lab.)

GRA2156C

Electronic Photoshop 4 credits
This course is designed for the experienced electronic publisher, graphic designer or graphic arts person who wishes to integrate black and white and color photography into their page layout or paint programs. It is also suggested for Graphic Art, Graphic Design, and Photography majors at MDC. Students will learn the basics of desk top scanning, retouching, color correcting, pre-proofing, correcting again, and output to laser printers, color printers and image-setters. Corequisite: GRA 1280C. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

GRA2162C

3-D Computer Animation 1 4 credits
Students will learn fundamentals of building computer based 3-D models for Film, TV and Video Gaming applications. Students will also learn technical and conceptual skills that will enable them to creatively express and develop their personal ideas and feelings. The students will also acquire a fundamental understanding of 3-D modeling. Prerequisite: ART 2600C or GRA 2156C or VIC 1205C. (2 hr. lecture; 4 hr. lab.)

GRA2168C

3-D Computer Animation 2 4 credits
Students will learn fundamental skills of animation and animating 3-D computer-generated models for Film, TV, and Video Gaming applications using the MAYA animation software. Students will also learn to implement basic dynamic effects along with modeling, texturing and lighting. Prerequisite: GRA 2162C. Laboratory fee. (2 hr. lecture; 2 hr. lab.)

GRA2190C

Communications Design 1 3-4 credits
Problems in advertising design involving layout, lettering, current studio media, and reproduction processes. Prerequisites: ART 1202C or 1300C. (1-2hr. lecture; 4 hr. lab.)

GRA2191C

Communications Design 2 3-4 credits
Advanced problems in commercial art concentrating on layout, mechanical art for reproduction and illustration technique. Prerequisite: GRA 2190C. (1-2 hr. lecture; 4 hr. lab.)

GRA2203C

Advanced Electronic Publishing 4 credits
QuarkXPress is a high-end electronic program whose features include extremely tight typographic and photographic controls. These features make QuarkXPress a program well suited for catalogs and magazine layouts. Students in this class will learn to operate QuarkXPress efficiently. Class lectures are supported with extensive handouts and audio visual presentations. Lab classes consist of a series of catalog and publication jobs which are designed to highlight the features of this program. Prerequisite: GRA 1330. Special fee. (2 hr. lecture; 4 hr. lab.)

GRA2207C**Advanced Electronic
Photoshop****4 credits**

This advanced course will introduce the Graphic Arts students to integrate black and white color photography into their page layout or paint program. Students will learn the requirements of desktop drum and flatbed scanning, retouching, color correcting, pre-proofing, correcting again and output to laser printers, color printers, and image-setters. Prerequisites: GRA 2156C. Special fee. (2 hr. lecture; 4 hr. lab.)

GRA2305C**Color Reproduction
Technology 2****3 credits**

Color separations with emphasis on methods commonly practiced. Includes calculating and predicting correction-factors, quality controls, and proofing methods. Students will be introduced to electronic color scanning and the current state of the science. Laboratory fee. (2 hr. lecture; 2 hr. lab.)

GRA2310C**Offset Presswork 1****4 credits**

The principles of offset presswork, including the operation of duplicating machines (Multilith, A.B. Dick, Chief 15, MGD and Davidson), setting up and operating the presses, troubleshooting, simple maintenance and safety precautions. Prerequisite: GRA 1210C. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

GRA2312C**Offset Presswork 2****4 credits**

Operation of the offset press (Harris LXD): a study of each unit of the machine gauges and instruments used in conjunction with the offset press, setting up and operating the press troubleshooting, safety and simple maintenance. Prerequisite: GRA 2310C. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

GRA2545C**Advanced Graphic Design 1****4 credits**

Practical problems in graphic communications with emphasis on producing layouts and comprehensives in black and white and color to contemporary industry standards. Prerequisite: GRA 1113C. Special fee. (2 hr. lecture; 4 hr. lab.)

GRA2546C**Graphic Design 4****4 credits**

Work necessary for the production of a typical graphic brochure including copy illustrations, thumbnails, roughs, comprehensive, mechanical camera and stripping. Prerequisite: GRA 2545C. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

GRA2727**Streaming Media Creation****4 credits**

Create, edit, and stream digital media from a server for distribution on the Internet. Provides a logical organization for understanding the benefits and limitations of streaming media. Enable students to use digital media cameras, digital media editing programs to produce creative presentations or portfolios for streaming distribution on the Internet. Students will learn the basic concepts of

streaming media such as: how to prepare media for various bandwidths, how and when to use transitions, how to prepare tiles, how to prepare superimposing, how to prepare audio and how to edit. Required for Graphic Internet Technology degree. Recommended for publishing, Web design or advertising industry personnel who wish to produce streaming media. Prerequisite: GRA 1753. Special fee. (2 hr. lecture; 4 hr. lab.)

GRA2755**Graphic Interface Design 3****4 credits**

This advanced course teaches students a more comprehensive process of preparing and implementing CGI scripts into web pages. This is an advanced design and development course, which teaches the creation of Active Server Pages using an application that quickly deploys database-driven e-commerce applications. Using a drag-and-drop interface and sophisticated wizards, the student builds web-based applications that access and update data in real-time while working across all major browsers. Create safe, fully customizable online stores that are scalable and simple to maintain. Develop stores quickly using built-in tax and shipping calculations, sophisticated merchandising options for including discount and fee calculations, and automatic order confirmations. Prerequisite: GRA 1754. Special fee. (2 hr. lecture; 4 hr. lab.)

GRA2811C**Applied Illustration 1****3-4 credits**

Exploration of fundamentals of composition, design and rendering in illustration. Development of skills in illustration techniques including pen and ink, opaque water color and combined mediums. Study of the creative processes applied to producing illustrations for the professional market. Prerequisites: ART 1201C, 1330C. (1-2 hr. lecture; 4 hr. lab.)

GRA2949**Co-op Work Experience 2:****GRA****3 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 Cooperative Education Office to obtain registration approval. (3 hr. lecture)

Haitian Language

HAI2340**Haitian-Creole for****Native Speakers 1****3 credits**

Writing spelling and punctuation, sentence-structure and vocabulary expansion as they are relevant to the training of native speak-

ers of Haitian Creole. Conducted entirely in Haitian-Creole. Prerequisite: Fluency in Haitian-Creole as determined by the Haitian-Creole placement exam. (3 hr. lecture)

HAI2341**Haitian-Creole for****Native Speakers 2****3 credits**

A continuation of HAI 2340. Emphasizes fluency in Haitian-Creole grammar and writing. Recommended for translation/interpretation students or native speakers wishing to improve their knowledge of written Haitian-Creole. Conducted entirely in Haitian Creole. Prerequisite: Fluency in Haitian-Creole as determined by the Haitian-Creole placement exam or HAI 2340. (3 hr. lecture)

HAT2802**Contrastive Analysis:****Haitian/Creole****3 credits**

This course compares/contrasts linguistic features and characteristics of both the English and Haitian/Creole languages. Aspects of comparison/contrast include historical backgrounds, phonological systems, morphological systems, syntax, and semantics. Prerequisite: Adequate fluency in Haitian-Creole (determined by department Haitian-Creole exam) and English (determined by CPT). (3 hr. lecture)

HCW2020**Selected Readings in****Haitian-Creole Literature 3****3 credits**

This course will emphasize reading and analyzing Haitian-Creole literature in a historical context. A variety of literature will be read and discussed in order to gain an understanding of Haitian-Creole and Haitian culture, the history of Haiti, and ways which the literature portrays the country of Haiti and its inhabitants. Prerequisite: Fluency in Haitian-Creole as determined by the Haitian-Creole placement exam. (3 hr. lecture)

Health Information Management

HIM1000**Introduction to Health****Information Management****2 credits**

The role and functions of a health information technician. Health information is essential to our health care delivery system. The medical record, in manual or automated form, houses the health information that describes all aspects of patient care. The structure, organization, and maintenance of the medical record are discussed. The organization and mission of the American Health Information Management Association are explored. The student also learns the organization and function of various types of health care facilities and the responsibilities of national, state and local health agencies. (2 hr. lecture)

HIM1110**Health Information Management
and Data Collection****2 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. The various components and approaches of the electronic health record are discussed. Prerequisite: HIM 1000, 2472; Corequisite: HIM 1110L. A.S. degree credit only. (2 hr. lecture)

HIM1110L**Health Information Management Data Collection Lab 3 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. A.S. degree credit only. (6 hr. lab.)

HIM1300**Health Care Facility and Delivery Systems 2 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. A.S. degree credit only. (2 hr. lecture)

HIM1800**Professional Practice Experience 1 2 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. A.S. degree credit only. (6 hr. lab/clinic)

HIM2012**Legal Aspects of Health Care 2 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. A.S. degree credit only. (2 hr. lecture)

HIM2211C**Health Information Technologies 2 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. A.S. degree credit only. (1 hr. lecture; 2 hr. lab.)

HIM2214C**Health Statistics 2 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. (1 hr. lecture; 2 hr. lab.)

HIM2222**ICD Coding Systems 2 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. A.S. degree credit only. (2 hr. lecture)

HIM2222L**ICD Coding Systems Laboratory 3 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. A. S. degree credit only. Laboratory fee. (6 hr. lab.)

HIM2234**Advanced Coding & Reimbursement Systems 2 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. A.S. degree credit only. (2 hr. lecture)

HIM2234L**Advanced Coding & Reimbursement Systems Laboratory 1 credit**

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 encoder, grouper, and electronic billing software for reimbursement. Prerequisites: HIM 2222, 2222L; Corequisite: HIM 2234. A.S. degree credit only. (2 hr. lab.)

HIM2253C**Current Procedural Terminology/CPT-4 2 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. A.S. degree credit only. (1 hr. lecture; 2 hr. lab.)

HIM2272C**Health Insurance Billing & Reimbursement 2 credits**

The health insurance billing process and the use of the HCFA-1500 and UB-92 claim forms. The concepts and methodologies of third party payers with focus on Medicare, Medicaid, Blue Cross/Blue shield, commercial insurance, Worker's compensations and self-pay. The impact of the Prospective Payment System on reimbursement to the health care facility and the interrelationship of coding, Diagnostic Related Groups (DRGs), Ambulatory Patient Classifications (APCs) and health care providers are explored. Prerequisites: HIM 2234, HIM 2234L. (2 hr. lecture)

HIM2400C**Diversified Non-Hospital Health Records 2 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. A.S. degree credit only. (1 hr. lecture; 2 hr. lab.)

HIM2430**Basic Principles of Disease 1 2 credits**

Disease, its etiology, and pathophysiologic nature. Medical complications and manifestations of disease states also included. Prerequisite: BSC 2085, 2085L, 2086, 2086L. A.S. degree credit only. (2 hr. lecture)

HIM2431**Basic Principles of Disease 2 2 credits**

The most common diagnoses encountered in each major body system and the laboratory or other diagnostic tests used to confirm or rule out those diagnoses current pharmacological treatments are explored. Prerequisite: HIM 2430. (2 hr. lecture)

HIM2433**Pathophysiology and Pharmacology 3 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. A.S. degree credit only. (3 hr. lecture)

HIM2472
Medical Terminology 3 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. A.S. degree credit only. (3 hr. lecture)

HIM2500
Data Management & Quality Assessment 2 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. (2 hr. lecture)

HIM2500L
Data Management & Quality Assessment Laboratory 1 credit
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. (2 hr. lab.)

HIM2512C
Supervision & Organization for Health Information Management 2 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. (1 hr. lecture; 2 hr. lab.)

HIM2652C
Electronic Health Record 3 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. (1 hr. lecture; 2 hr. lab.)

HIM2810
Professional Practice Experience 2 2 credits

This course is a supervised professional practice experience in a health care setting utilizing health records and reports to perform medical coding functions. Students will learn to assign Medicare Severity-Diagnosis Related Groups/Ambulatory Payment Classifications using the organization's information systems, encoder and grouper software. Sequencing of International Classification of Disease (ICD) and Current Procedural Terminology (CPT) coding systems will be discussed. Prerequisite: HIM 2222; Corequisite: HIM 2234, 2234L. A.S. degree credit only. (6 hr. lab/clinic)

HIM2820
Seminar and Professional Practice Experience 3 2 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. A.S. degree credit only. (6 hr. lab/clinic)

Health Science

HSC2400
Basic Emergency Care 3 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. Special fee. (3 hr. lecture)

HSC2404
Instructor's Training First Aid & CPR 3 credits

Designed to improve the performance skills, techniques, and knowledge as well as develop competent teaching skills in First Aid and cardiopulmonary resuscitation. This course meets the American Red Cross Instructor Certification Requirements for Standard First Aid and Personal Safety and Basic Life Saving Cardiopulmonary Resuscitation. Special fee. Prerequisite: HSC 2400 or certification in American Red Cross Standard First Aid and Personal Safety and Basic Life Saving Cardiopulmonary Resuscitation. May be repeated for credit. (2 hr. lecture; 2 hr. lab.)

HSC3057
Introduction to Research Methods in Health Care 3 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. (3 hr. lecture)

HSC3131
Client Education in Health Care 3 credits
This course focuses on the delivery of client specific health education. The student will learn to develop the attitudes, knowledge, and skills required for successful education of patients. The student will learn to assess curriculum, training objectives, and educational experiences, and serve in the best interest of educating the patient. (3 hr. lecture)

HSC3181
Alternative Medicine Strategies 3 credits
This course will introduce students to new approaches to health and healing. The student will learn the various medicines practiced around the world, collectively referred to as complementary and alternative medicines (CAM). Students will learn epidemiology, usage and terminology specific to these practices. (3 hr. lecture)

HSC3243
Teaching Skills for Health Care 3 credits
This course emphasizes significant problems instructors have related to content and design of curricula or courses. Students will learn the theoretical underpinnings of teaching and learning in health science disciplines from a variety of perspectives - educational, psychological, developmental and social. (3 hr. lecture)

HSC3701
Leadership and Management in Healthcare 3 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. (3 hr. lecture)

HSC4942
Community Service Learning Practicum 3 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. (3 hr. lecture)

History

AFH2000

African History and Culture 3 credits
Historical survey of the development of African society, its culture and institutions, with emphasis on the 13th century to the present. (3 hr. lecture)

AMH2010

History of the US to 1877 3 credits
Students will learn of the history of the United States to 1877 by examining the founding, growth, and development of America from the colonial era through Reconstruction. (3 hr. lecture)

AMH2020

History of the US since 1877 3 credits
This course focuses on the social, economic, cultural, and political developments in the United States since 1877. The student will gain knowledge of changes and continuities in the history of the United States since the late nineteenth century. (3 hr. lecture)

AMH2035

Recent American History Since 1945 3 credits
The internal development of the United States and the role of the U.S. in world affairs since World War II. (3 hr. lecture)

AMH2070

Florida History 3 credits
Florida from the Spanish period to the present with emphasis on the modern development of natural resources, urbanization, industry, culture and tourism. (3 hr. lecture)

AMH2079

History of South Florida 3 credits
A study of the history of South Florida (Lake Okeechobee south to Key West) including geological foundations exploration, settlement and contemporary cultural trends. (3 hr. lecture)

AMH2091

Afro-American History 3 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. (3 hr. lecture)

EUH2030

Contemporary Europe 1 3 credits
This course examines the major social, economic, political and diplomatic development of European History since 1870. Special emphasis is placed on the pre-and post-war internal political structures of the major European States: the evolution of the various working class movements, communism, fascism, the great international crisis inside Europe, the two world wars and the two subsequent reorganizations of the continent, the cold war, decolonization and the emergence of a new order. (3 hr. lecture)

EUH2032

History of the Holocaust 3 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. (3 hr. lecture)

EUH2068

History of Russia from 1917 3 credits
Survey of Russian History since 1917. Emphasis is given to the nature and causes of the 1917 revolution and the impact of communist ideology on the development of the U.S.S.R. and on its relations with the rest of the world. (3 hr. lecture)

LAH2021

Colonial Latin America 3 credits
Emphasis is initially given to the geography of Latin America and to the Indian civilizations of that region. The focus then shifts to the Iberian states as colonizing powers and finally to the social and economic institutions of the colonial period, including the Wars of Independence to 1825. (3 hr. lecture)

LAH2022

Latin American Republics 3 credits
Focus is on the national development of the Latin American Republics since 1825, especially the internal problems of these nations, their role in the Pan American movement, and the role of Latin America in world affairs. (3 hr. lecture)

LAH2023

History of the Caribbean 3 credits
This course introduces students to the economic social, political, and cultural history of the Caribbean and its peoples. Students will learn of the changes and continuities that have affected Caribbean development. (3 hr. lecture)

LAH2025

History of Cuba 3 credits
Historical analysis of the development of Cuban society, its culture and institutions. (3 hr. lecture)

WOH2003

History of Genocide 3 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. (3 hr. lecture)

WOH2012

History of World Civilization to 1789 3 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. (3 hr. lecture)

WOH2022

History of World Civilization from 1789 3 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. (3 hr. lecture)

Hospitality Management

HFT1000

Introduction to Hospitality 3 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. (3 hr. lecture)

HFT1210

Human Resources 3 credits
Provides information relating to the recruitment and selection of new staff, the handling of difficult employees, motivating employees and conducting performance evaluations. (3 hr. lecture)

HFT1212

Safety and Sanitation 3 credits
The student will relate the principles and practices of safety and sanitation to the hospitality industry. Major topics are scientific rationales for safety and sanitation procedures, safe facilities, causes of food borne illnesses and preventive measures, sanitation practices and safety regulations. Special fee. (3 hr. lecture)

HFT1220

Communication/Supervisory Development 3 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. (3 hr. lecture)

HFT1300

Executive Housekeeping 3 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. (3 hr. lecture)

HFT1611**Responsible Beverage Vendor 1 credit**

Introduces students to the responsibilities and liabilities incurred by establishments and individuals who serve alcoholic beverages and to the local State of Florida, and federal regulations related to the sale and consumption of alcoholic beverages. Students will gain knowledge of the effects of alcohol and how to evaluate guests while avoiding difficult situations. Prerequisite: HFT 1000. Special fee. (1 hr. lecture)

HFT1631**Risk Management and Security 3 credits**

Provides the opportunity to examine issues surrounding the need for individualized security and surveillance programs, risk management and review systems. The student will examine a wide variety of security and safety equipment procedures and discuss guest protection, internal security for asset protection, and OSHA regulations that apply to lodging properties. (3 hr. lecture)

HFT1841**Dining Room Service 3 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. (3 hr. lecture)

HFT1841L**Dining Room Service****Laboratory****1 credit**

Supplements the classroom theory portion of Dining Room Service HFT 1841 by having students create, plan, develop and participate in an actual dining room service experience. The student will work in tandem with industry professionals, faculty, and other students to outline, design, and bring to fruition an event. The student will become certified in ServSafe prior to the culmination of the event, so as to be in compliance with State mandated statute 509.039. Corequisite: HFT 1841. Special fee. (2 hr. lab.)

HFT1852**Menu and Facilities Planning 3 credits**

Provides students with the opportunity to engage in basic menu planning and how it is affected by demographics and customer base. Emphasis on cost concepts, pricing, menus, restaurant and kitchen design, space allocation, ergonomics, and safety and sanitation. Corequisite: HFT 1000. (3 hr. lecture)

HFT2223**Training Skills and Development 3 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. (3 hr. lecture)

HFT2241**Leadership and Quality Assurance Management 3 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. (3 hr. lecture)

HFT2261**Restaurant Management 3 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. (3 hr. lecture)

HFT2410**Front Office Procedures 4 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. (3 hr. lecture; 2 hr. lab.)

HFT2421**Managerial Accounting for Hospitality 3 credits**

Presents managerial accounting concepts and explains how they apply to specific operations within the hospitality industry. (3 hr. lecture)

HFT2449**E-Business for the Hospitality Industry 3 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. (3 hr. lecture)

HFT2500**Marketing of Hospitality Services 3 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. (3 hr. lecture)

HFT2501**Hospitality Sales 3 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. (3 hr. lecture)

HFT2750**Convention Service and Management 3 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. (3 hr. lecture)

HFT2772**Introduction to Cruise Line Industry 3 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. (3 hr. lecture)

HFT2773**Cruise Line Sales and Marketing 3 credits**

Provides an introduction to the sales and marketing functions of the cruise industry. Students will gain an understanding of how cruises lines position themselves in the competitive business environment and the sales and marketing techniques used to attract customers and group business. Students will gain an understanding of yield management and the issues surrounding travel agents during the sales process. Prerequisites: HFT 2772. (3 hr. lecture)

HFT2774**Shipboard Operations 3 credits**

Provides an understanding of shipboard operations on cruise ship and their relationship to the shore side headquarter office. Students will gain knowledge of the history of cruise ships and the activities and facilities that make cruise line operations complementary both to the industry and the guest. This course will focus on the ship as a hotel for passengers with the wining and dining aspects of service, as well as, casino practices on board. Prerequisite: HFT 2775. (3 hr. lecture)

HFT2775**Shoreside Operations 3 credits**

Provides a basic understanding of the shore side office operations and sales procedures of cruise line and how they relate to the general operations of the cruise ship itself. Students will acquire knowledge of pier, airport, ground services and hotel operations and create elements for cruise lines sales. Prerequisite: HFT 2772. (3 hr. lecture)

HFT2800**Food and Beverage Management 3 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. (3 hr. lecture)

Human Services

HUS1001**Introduction to Human Services 3 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. (3 hr. lecture)

HUS1111**Interpersonal Skills 3 credits**

This course is designed to develop the skills necessary for the student to communicate with clients and to learn to use these skills effectively. The students will learn and practice communication skills needed to provide strength-based assessment, help families to set and reach goals, access specialized services, and make home visits. A.S. degree credit only. (3 hr. lecture)

HUS1302**Basic Counseling Skills 3 credits**

Development of the skills of observation, recording, reporting, interviewing and counseling. These skills are presented in the context of general counseling theory. (3 hr. lecture)

HUS1318**Domestic Abuse and Family Violence 3 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. (3 hr. lecture)

HUS1421**Assessment and Treatment Planning in Addictions 3 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. (3 hr. lecture)

HUS1423**Group Counseling in Substance Abuse 3 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. (3 hr. lecture)

HUS1428**Addiction Treatment Delivery Systems 3 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. (3 hr. lecture)

HUS1440**Family Issues in Chemical Dependency 3 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. (3 hr. lecture)

HUS1475**Addiction Counseling and the law 3 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. (3 hr. lecture)

HUS1480**HIV/AIDS and the Substance Abuser 3 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. (3 hr. lecture)

HUS1551**Multicultural Perspectives 3 credits**

The main goal of this course is to give students a working definition of culture and also to promote an understanding of the basic concepts and philosophy of cultural competence. It considers the psychological impact on the community of factors, such as sex, race, ethnicity, culture, religious perspectives, socioeconomic status, sexual orientation, and physical disability, among others. It also examines how to apply these concepts and principles while providing services to families. Family displacement and immigration issues will be explored as well. A.S. degree credit only. (3 hr. lecture)

HUS2303**Counseling Techniques 3 credits**

Specific counseling techniques are introduced within the various counseling theories. Work involves both group and individual techniques. (3 hr. lecture)

HUS2493**Addiction Counseling Competencies 3 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 (3 hr. lecture)

HUS2500**Issues & Ethics in Human Services 3 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. (3 hr. lecture)

HUS2820
Field Experience
in Human Service **3 credits**

Volunteer work as counseling paraprofessionals in a community agency under supervision. Students meet regularly with the Field Coordinator. Prerequisites: HUS 1001, 1302, 2303. (120 hr. per term).

HUS2902
Directed Independent
Study In Addiction Treatment **3 credits**

This course is designed to allow students to pursue projects under faculty advisement and supervision. Projects may be directed research, or development of skills and competencies. The proposed project must demonstrate competency in one of the core competencies of addiction counseling learned in HUS2493 and must be approved by the supervising instructor. Prerequisites: HUS 2493, PSB 2442. (3 hr. lecture)

HUS2941
Human Services Addiction
Counseling Practicum **6 credits**

This course is designed to provide the student with an arena to practice the application of Human Services addiction counseling theories and techniques in a licensed addiction treatment facility. Prerequisites: HUS 1302, 1421, 1423, 2493, 2500 and PSB 2442. (3 hr. lecture)

Humanities

HUM1020
Humanities **3 credits**

An integral approach to the humanities: creative ideas, works, and accomplishments of various cultures from the areas of art, architecture, drama, music, literature and philosophy are presented. (3 hr. lecture)

HUM2513
Arts and Humanities **3 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. (6 hr. lab.)

Interdisciplinary Honors

IDH1001
Honors Leadership
Seminar 1 **1-3 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. (1-3 hr. lecture)

IDH1002
Honors Leadership
Seminar 2 **1-3 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. (1-3 hr. lecture)

IDH2003
Honors Leadership
Seminar 3 **1-3 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 institution to demonstrate their ability to apply the principles learned and the quality of their work. (1-3 hr. lecture)

IDH2004
Honors Leadership
Seminar 4 **1-3 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. (1-3 hr. lecture)

Interdisciplinary Sciences

IDS1044
Leadership Seminar **3 credits**

The student will develop critical thinking, team-building, leadership, and civic literacy in order to build leadership capacity and professional potential. Students will learn strategies and skills that are transferable to academic, personal, and professional endeavors. Service-learning may be included. Students will submit an end-of-term portfolio. (3 hr. lecture)

IDS1107
Tools for Success **1 credit**

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. (1 hr. lecture)

IDS1153
Earth Literacy and
Sustainability 1 **3 credits**

This interdisciplinary course is designed to help students explore Earth Literacy and environmental sustainability. Students will learn principles of Earth Literacy and ecological sustainability, identify current issues in Earth ethics, and demonstrate an understanding of individual responsibility in contributing to a sustainable world through lectures, presentations, projects, guest presenters, and field experiences. (3 hr. lecture)

IDS2123
Leadership in Science, Technology,
Engineering and Mathematics **1 credit**

In this course students will research their career interests and interview professionals in Science, Technology, Engineering and Mathematics (STEM). Students will learn to identify, compare, and evaluate upper division degree programs and prepare applications for admission to these programs. Students will write successful application essays and develop interview skills for transfer. (1 hr. lecture)

IDS2124
Skills for Transfer Success **1 credit**

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. (1 hr. lecture)

IDS2930
The Economic Effects
of Scientific Discovery **1 credit**

Students will develop an understanding of the relationship between scientific discovery and/or development and its impact on a country's economic growth. Students will participate in a series of seminar sessions on campus, and will be assigned selected readings which reflect the course purpose. In a cooperative learning mode, students from Business will gain an understanding of scientific developments, while students from Natural Science will realize the economic value of scientific research. The capstone of the course is a trip to London and Paris to experience firsthand this relationship. (1 hr. lecture)

ISC4534C
Research in the Sciences **3 credits**

This course provides students with a hands-on experience in developing a rich understanding of the processes of science through the development of a scientific research project in life, physical, and/or earth/space sciences. Students will generate hypothesis, develop and experimental design, collect

data, and present an analysis of their findings. (3 hr. lecture)

Interior Design

IND1020

Interior Design 1 4 credits

Student's projects develop the ability to plan simple interior floor plans and elevations. Corequisite: ARC 1115. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

IND1100

History of Interiors 1 3 credits

Acquaints the student with period styles in room decoration from Egyptian through the Renaissance. (3 hr. lecture)

IND1130

History of Interiors 2 3 credits

Historical development of interior design from the Renaissance through the 20th century. Gordon Rule Assigned. (3 hr. lecture)

IND1200

Interior Design 2 4 credits

Problems in room planning, correlation of color schemes and furnishings. Prerequisite: IND 1020. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

IND1300

Interior Design Presentations 1 2 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. Laboratory fee. (1 hr. lecture; 2 hr. lab.)

IND2210

Interior Design 3 4 credits

Projects provide practice in planning traditional and contemporary interiors including working drawings and specifications. Prerequisite: IND 1200; Corequisite: IND 2330. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

IND2220

Interior Design 4 4 credits

Advanced problems involving interior arrangements in residential and commercial areas. Prerequisite: IND 2210. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

IND2330

Interior Design Presentations 2 3 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. Laboratory fee. (1 hr. lecture; 4 hr. lab.)

IND2430

Lighting Design 3 credits

A survey of utilitarian interior lighting and

exterior architectural lighting including fundamentals and basic physics laws, practical applications to interior and exterior spaces and lighting design considering different levels of space utilization and fixture efficiency. Prerequisite: IND 1200. Special fee. (3 hr. lecture)

IND2500

Professional Practices 3 credits

Duties and responsibilities relative to employment and business practices. Prerequisite: Sophomore standing level or equivalent. (3 hr. lecture)

Italian Language

ITA1000

Elementary Italian Conversation 3 credits

A course emphasizing conversational Italian. Extensive use is made of oral exercises and audio tapes. This course cannot be substituted for ITA 1120 or 1121. (3 hr. lecture)

ITA1120

Elementary Italian 1 4 credits

An integrated (multi-media) approach to acquire proficiency in the basic skills (of the language)-listening/understanding, speaking, reading, writing, and cross-cultural awareness. Emphasis on practical vocabulary and accurate pronunciation. Practice in class and laboratory in understanding and using the spoken language; reading and writing with progressive grammatical explanations. (4 hr. lecture)

ITA1121

Elementary Italian 2 4 credits

A continuation of 1120. A proficiency-oriented course emphasizing the mastery of the basic skills of the language. Prerequisite: ITA 1120. (4 hr. lecture)

ITA2220

Intermediate Italian 1 4 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. (4 hr. lecture)

ITA2221

Intermediate Italian 2 4 credits

Understanding, speaking, reading, writing and cross-cultural awareness, through a systematic review of reading and writing skills with emphasis on oral as well as written expression. Prerequisite: ITA 2220. (3 hr. lecture)

ITA2240

Intermediate Italian Conversation 1 3 credits

Training in the acquisition and application of language skills. Practical use of the language to develop fluency and correctness in speaking. Pre/Corequisite: ITA 2201. (3 hr. lecture)

ITA2241

Intermediate Italian Conversation 2 3 credits

Practice in listening and speaking using topical materials. Development of oral proficiency skills. Prerequisites: ITA 2201 or 2240. (3 hr. lecture)

Japanese Language

JPN1120

Elementary Japanese 1 4 credits

An integrated (multi-media) approach to acquire proficiency in the basic skills (of the language) - listening/understanding, speaking, reading, writing, and cross-cultural awareness. Emphasis on practical vocabulary and accurate pronunciation. Practice in class and laboratory in understanding and using the spoken language; reading and writing with progressive grammatical explanations. (4 hr. lecture)

JPN1121

Elementary Japanese 2 4 credits

A continuation of JPN 1120. A proficiency oriented course emphasizing the mastery of the basic skills of the language. Prerequisite: JPN 1120. (4 hr. lecture)

JPN2220

Intermediate Japanese 1 4 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. (4 hr. lecture)

JPN2221

Intermediate Japanese 2 4 credits

A continuation of JPN 2220. Further study of advanced grammar, together with the introduction of more complex reading materials and an increase in the number of "Kanji." Emphasis on cross-cultural awareness. Prerequisite: JPN 2220 or equivalent. (4 hr. lecture)

Journalism

JOU1100

Basic Reporting 3 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. (3 hr. lecture)

JOU1946

Journalism Internship 1-3 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. (2-6 hr. lab.).

JOU1949

Co-op Work Experience 1:

JOU 3 credits

This course is 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. (3 hr. lecture).

JOU2200

Editing and Makeup

3 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. (3 hr. lecture)

Library Science

LIS1001

Library Research

1-3 credits

Provides students with a practical working knowledge of the Library so that resources may be used efficiently for research purposes. Emphasis is placed on developing effective and efficient methods of using the card catalog, the online catalog and databases, periodical indexes, CD-ROMS, general reference books and other library research technology. (1-3 hr. lecture/lab.)

LIS2004

Introduction to

Internet Research

1 credit

This one credit course is delivered via the World Wide Web and Internet e-mail. Students must have an Internet account with e-mail, a graphical Web browser (Netscape v.3.0 or later, or Internet Explorer v.3.0 or later are recommended). Students must have basic familiarity with their computer's operating system, Web browser and e-mail program. The course focuses on methods of accessing information resources available through the Internet. Students will learn how to design effective search strategies, retrieve, evaluate and cite Internet resources. (1 hr. lecture)

Linguistics

LIN2200

Phonetics

3 credits

An introduction to the elementary area of the sound systems of types of spoken English.

Practice in recognition and transcription using IPA alphabet. (3 hr. lecture)

LIN2606

Introduction to Sociolinguistics

3 credits

This course introduces students to the study of how social and cultural factors affect human communication. Topics such as language attitudes and policies, dialects vs. standards, class variation, and race and gender will be discussed. (3 hr. lecture)

Management

FIN3400

Finance for

Non-Financial Managers

3 credits

The students will learn to apply their financial skills and decision-making ability 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. Prerequisites: ACG 2071, QMB 2100 or STA2023. (3 hr. lecture)

ISM4011

Introduction to Management

Information Systems

4 credits

The student will learn by examining the use of computer systems and information technology and their applications to make more effective business decisions. The student will use information technology software to assist them in making decisions of a business nature. The student will learn the latest terminology, techniques and applications of information systems in a business organization. (Senior status or permission of department chair required.) (4 hr. lecture)

MAN1023

Management for

Nonprofit Organization

3 credits

This is a foundation course in the management of non-profit organizations. This course provides an overview of the range and variety of institutions and activities of the non-profit sector and the critical role they play. The student will learn wanton-profits have in common and the basic rationale for this type of organization through clarifying the basic scope, structure, and role of the organizations of the non-profit sector. An emphasis will be placed upon the need for non-profit organizations to operate similarly to for-profit businesses by efficiently managing financial resources, developing new revenue sources, adapting to change and effectively evaluating their community impact. (3hr. lecture)

MAN1949

Co-op Work Experience 1:

MAN

3 credits

This course is 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 Cooperative Education Office to obtain registration approval. (3hr. lecture)

MAN2021

Principles of Management

3 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. Special fee. (3 hr. lecture)

MAN2300

Human Resources

Management

3 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. (3 hr. lecture)

MAN2604

Managing in a

Multi-Cultural Environment

3 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. (3 hr. lecture)

MAN2930

Creative Leadership

3 credits

Students will experience and analyze the dynamics of group behavior in establishing a creative work climate where managers and employees can perform more effectively. Topics to be examined include team building, the importance of trust in professional relations, giving and receiving feedback, the functions of sub-groups, roles and status, appointed power, elected power, informal power, and formal power. The class is conducted entirely in a discussion group setting. (3 hr. lecture)

MAN3025**Organization Management 3 credits**

The student will learn the major functions of supervision and management including the functions of planning, staffing, directing and controlling. Emphasis is placed on learning how to communicate more effectively with employees, and how to increase one's leadership effectiveness. Major topics include goal setting and attainment, organizational structure, decision-making, strategic planning, managing stress, and ethical behavior and ethical role modeling. The student will learn through the use of cases that will present the student with opportunities to make supervisory and management decisions after which they will be provided with timely feedback on their effectiveness. Prerequisite: MAN 2021. (3 hr. lecture)

MAN3065**Business Ethics 3 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. Prerequisite: MAN 2021. (3 hr. lecture)

MAN3240**Organizational Behavior 3 credits**

The student will learn about social behavioral sciences that can be applied to supervision and management. The student will learn about several major topics including 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 organizational behavior, and how to integrate behavioral concepts into an effective managerial decision-making process. Prerequisite: MAN 2021. (3 hr. lecture)

MAN3301**Human Resource Management 3 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. Prerequisite: MAN 2021. (3 hr. lecture)

MAN3894**Applied Case Studies in Management 3 credits**

The student will learn utilizing case studies as the primary focus of this course, Supervision and Management cases will require students to use a variety of decision-making tools and techniques to analyze and present their results. Rational and intuitive decision models as well as computer simulations will be utilized, which will help the student build a comprehensive set of decision making tools and the knowledge of how and when to apply them most effectively. Prerequisite: MAN 2021. (3 hr. lecture)

MAN4120**Leadership Challenges and Supervision 3 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, and the student will develop a full set of managerial and leadership skills. (Senior status or permission of department chair required.) (3 hr. lecture)

MAN4162**Customer Relations for Managers 3 credits**

The student in this course will learn 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. (Senior status or permission of department chair required.) (3 hr. lecture)

MAN4720**Strategic Management Decision Making 4 credits**

The student will learn the designing, planning, and implementation of strategic decision-making in a business organization. The student will learn how to identify problems and design possible solutions, by formulating plans, goals, and feedback mechanisms. Needs assessments, and internal and external audits will be utilized to understand problems that are presented in cases that require effective strategic solutions. Emphasis will be placed not only on developing an effective strategic plan, but on its effective implementation and its long-term results. (Senior status or permission of department chair required.) (4 hr. lecture)

MAN4900**Capstone Project in Supervision and Management 4 credits**

In this course the students will learn to apply all of their knowledge and skills to bear on a major supervision and management project. The project will require the effective integration of all that the students have learned throughout their supervision and

management studies. The students will learn to integrate the knowledge and skills in order to complete an acceptable project. (Must be taken during the last semester before graduation and permission of department chair. (4 hr. lecture)

MAN4941**Management Internship 3 credits**

The student will learn by becoming an employee at either a not-for-profit or profit seeking organization. The student will be required to work at least the minimum hours required by the state to earn the credit for the internship. The student will work with their supervising faculty member and the employer to establish a set of learning goals that will be achieved during the semester. (Senior status and permission of department chair required.) (3 hr. lecture)

MNA1322**Training Methods 3 credits**

Provides practical experience in the four most effective training methods used in organizations today: demonstration performance, lecture, teaching interview and guided discussion. Emphasis is placed on analyzing the methods through student practice-teaching presentations. A.S. degree credit only. (3 hr. lecture)

MNA1345**Effective Supervision 3 credits**

Prepares students for success in supervisory or management positions. Emphasis is placed on learning how to communicate more effectively with employees, how to motivate employees, how to increase one's leadership effectiveness, how to delegate, how to counsel problem employees, how to conduct performance reviews, how to maintain a discrimination and harassment-free workplace, and how to manage time. (3 hr. lecture)

MNA2120**Human Relations in Business 3 credits**

A practical review of human relations and communication skills necessary for superior performance and career advancement. Students will learn and practice effective interpersonal communication skills, including giving criticism tactfully, expressing feelings constructively, being more sensitive to body language messages, and active listening. Other major topics emphasized are building self-esteem, how values and attitudes influence our performance and work relationships, assertion skills, group dynamics and team building, managing conflict, dealing with difficult people, and the problems and challenges of getting along in a culturally diverse workplace (3 hr. lecture)

SBM1000**Small Business Management 3 credits**

Reviews forms of ownership, franchising, location analysis, financing, record keeping, purchasing, inventory control, marketing, security, insurance, and consumer credit. Students will prepare a feasibility study and present a comprehensive small business start-up plan. (3 hr. lecture)

Marketing

MAR1011
Principles of Marketing 3 credits
 The marketing management concept of the distribution of goods and services with consideration of market research and analysis, buying and selling, product design, pricing, promotion, transportation, competition, and the responsibilities of the marketing manager. (3 hr. lecture)

MAR1053
Marketing for Non-Profit Organizations 3 credits
 This course provides an overview of the ways in which a non-profit organization can become market or customer driven. The management process directed at satisfying customer needs and wants through an exchange process is marketing in the non-profit organization. The student will examine this marketing orientation that enables a non-profit organization to achieve its objectives more effectively and produce organizational benefits. (3 hr. lecture)

MAR1211
Inventory and Warehouse Management 3 credits
 Inventory and Warehouse Management is concerned with inventory control and cost concepts such as economic order quantity, reorder point, materials planning and just-in-time inventory systems. This course will discuss significant topics including strategic warehousing and distribution center decisions, storage facilities location and design, packing and containerization and performance measurement as they relate to the international environment. (3 hr. lecture)

MAR1720
Introduction to E-Commerce 3 credits
 This is a foundation course in e-commerce. Students will learn the elements of effective e-commerce solutions, e-marketing, e-accounting, e-customer service and the development process. (3 hr. lecture)

MAR2141
Export/Import Marketing 3 credits
 Introduction to international marketing, with special emphasis on export/import procedures and documentation. The basic principles and concepts of the distribution of goods in international markets; provides an overview of the international marketing process, and the problem facing international marketers in a multinational setting. Emphasis is placed upon export/import transactions. (3 hr. lecture)

MAR2150
International Marketing 3 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 envi-

ronments affecting global marketing efforts. (3 hr. lecture)

MAR2154
International Trade 3 credits
 This is an exploratory course in the dimensions of international trade theory and policy. The background mechanics of world trade, the effect of world resource distribution on international trade and an appreciation of the interdependencies among cultures is discussed. (3 hr. lecture)

MKA1021
Fundamentals of Selling 3 credits
 The nature and requirements of selling, including a consideration of buyer motivations and selling theories in relation to various buyer-seller situations. (3 hr. lecture)

MKA1041
Principles of Retailing 3 credits
 Major types of retail institutions and their organizational structure; activities of the merchandising, operating and controlling divisions; buying and merchandising functions; methods of financial, inventory, and credit control; and the selection and training of personnel. (3 hr. lecture)

MKA1161
Introduction to Customer Service 3 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. (3 hr. lecture)

MKA1511
Principles of Advertising and Copywriting 3 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. (3 hr. lecture)

MKA1531
Advertising Layout and Production 3 credits
 Principles of effective advertising layout and production techniques. Laboratory sessions emphasize use of color, art work, choice of type and methods and techniques of producing ads for various media. Prerequisite: MKA 1511 or equivalent. (3 hr. lecture)

MKA1949
Co-op Work Experience 1: MKA 3 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 Cooperative Education Office to obtain registration approval. (3 hr. lecture)

TRA2010
Introduction to transportation and Logistics 3 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. (3 hr. lecture)

TRA2702
International Logistics and Transportation 3 credits
 International logistics concerns the flow of materials into, through and out of the 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. (3 hr. lecture)

Mass Communications

MMC2000
Introduction to Mass Communications 3 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. (3 hr. lecture)

PUR2003
Public Relations 3 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. (3 hr. lecture)

Mathematics College Level

MAC1105

College Algebra**3 credits**

This course introduces the student to the concept of functions and their graphs. Students will graph linear, quadratic, rational, exponential, logarithmic, radical, power, and absolute value functions and transformations; perform operations on and compositions of functions; find the inverse of a function; apply the laws of logarithms to simplify expressions and solve equations; graph non-linear inequalities; solve related applications and modeling problems. Prerequisite: MAT1033 with a grade of "C" or better "or" satisfactory placement test scores. Special fee. Gordon Rule Assigned. (3 hr. lecture)

MAC1114**Trigonometry****3 credits**

This course is primarily designed for students who expect to take physics and/or the courses in the calculus sequence. Students will learn and use the fundamental trigonometric identities and solve conditional trigonometric equations, perform operations on complex numbers in trigonometric form, work with vectors, and graph both polar and parametric equations. Prerequisite: MAC 1105 or MAC 1140 or MAD 2104 with a grade of "C" or better. Special fee. (3 hr. lecture)

MAC1140**Pre-Calculus Algebra****3 credits**

This course is primarily designed for students who are majoring in areas that require one or more courses in the calculus sequence. The student will analyze and graph algebraic, exponential, logarithmic, piecewise-equations, as well as systems of linear and nonlinear equations. The student will identify arithmetic and geometric sequences and series and solve related problems. The student will use the Binomial Theorem to expand polynomials and solve related problems. The student will use mathematical induction to prove statements regarding the properties of natural numbers. The student will solve applications and statements regarding the properties of natural numbers. The student will solve applications and modeling problems related to the above topics. Prerequisite: MAC 1105 with a grade of "C" or better or equivalent. Gordon Rule Assigned. (3 hr. lecture)

MAC1147**Pre-Calculus Algebra and Trigonometry****5 credits**

This course includes all the topics covered in Pre-Calculus Algebra (MAC 1140) and in trigonometry (MAC 1114). See the course description for MAC 1140 and MAC 1114 for the MAC 1147 topics. The course is designed for students with a strong high school background in algebra and trigonometry, or for students who performed very well in college algebra. Prerequisite: MAC1105 with a grade of "C" or better or departmental permission. Gordon Rule Assigned. (5 hr. lecture)

MAC2233**Business Calculus****3 credits**

An introduction to the basic concepts of differential and integral calculus for business majors. Topics include limits; continuity; dif-

ferentiation and integration of polynomial, log arithmetic and exponential functions with applications to business. Prerequisite: MAC 1105. Gordon Rule Assigned. Special fee. (3 hr. lecture)

MAC2311**Calculus and****Analytical Geometry 1****5 credits**

Introduction to analytic geometry; limits; continuity; differentiation of algebraic and trigonometric functions, differentials; introduction to integration and the fundamental theorem of calculus; application of definite integrals and derivatives. Prerequisites: MAC 1114 and MAC 1140 or MAC 1147 with a grade of "C" or better or departmental permission. Gordon Rule Assigned. (5 hr. lecture)

MAC2312**Calculus and****Analytical Geometry 2****4 credits**

Techniques of integration; applications of integration; differentiation and integration of inverse trigonometric, exponential, logarithmic, and hyperbolic functions; sequences and series; parametric equations and polar coordinates; improper integrals; and indeterminate forms. Prerequisite: MAC 2311 with a grade of "C" or better. Gordon Rule Assigned. (4 hr. lecture)

MAC2313**Calculus and****Analytic Geometry 3****4 credits**

Analytic geometry of three dimensions; vectors and vector valued functions; curves and surfaces in 3-space; partial differentiation and applications; multiple integrals and their applications; line integrals, surface integrals; and Green's theorem. Prerequisite: MAC 2312 with a grade of "C" or better. Gordon Rule Assigned. (4 hr. lecture)

MAD1100**Discrete Mathematics****for Computer Science****3 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. Special fee. Gordon Rule Assigned. (3 hr. lecture)

MAD2104**Discrete Mathematics****3 credits**

This course is designed for those students who are majoring in computer science, engineering, mathematics, and other highly technological fields. Topics include formal logic, set theory, combinatorics, mathematical induction, relations and functions, recursion, and graph theory. Prerequisite: MAC 1140. Special fee. Gordon Rule Assigned. (3 hr. lecture)

MAD3107**Discrete Structures****3 credits**

Topics include sets, logic, switching circuits, Boolean algebra, combinatorics, probability,

mathematical proofs, mathematical induction, functions, relations, and graph theory. Credit is not also given for MAD 2104. Prerequisite: MAC 2312. (3 hr. lecture)

MAP2302**Introduction to****Differential Equations****3 credits**

Includes equations of order one and degree one, orthogonal trajectories, linear equations and constant coefficients, non-homogeneous equations, inverse differential operators, solutions using LaPlace Transforms, elementary existence theorems, series solutions, and applications to physics and chemistry. Prerequisite: MAC 2312 with a "C" or better or equivalent. Gordon Rule Assigned. (3 hr. lecture)

MAP2402**Applied Mathematics for Science and Engineering****3 credits**

This course bridges mathematics and STEM fields by demonstrating applications such as angular momentum, vehicle positioning, coding, signals, graphics, sensors, and biological processes, using software and robotics. Students will learn topics such as: cross products, linear independence, subspaces, affine spaces, matrix operations, and eigenvectors, R^2 and R^3 , as well as regression and dimensional analysis. Prerequisite: MAC1105 (High School Geometry Recommended), Pre/Corequisite: MAC1114 or MAC1147. (3 hr. lecture)

MAS2103**Elementary Linear Algebra****3 credits**

Vectors, coordination of space, linear independence and bases, equations in 3-space, linear transformations, matrices, rank, and nullity. Prerequisite: MAC 2311. Gordon Rule Assigned. Special fee. (3 hr. lecture)

MAS3105**Linear Algebra****3 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. (3 hr. lecture)

MAS3301**Algebraic Structures****3 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. (3 hr. lecture)

MAS4203**Number Theory****3 credits**

Topics include mathematical induction, divisibility, the Euclidean algorithm, primes, the Fundamental Theorem of Arithmetic, number-theoretic functions, congruence, linear Diophantine equations, linear congruen-

cies, the Chinese Remainder Theorem, and the theorems of Euler, Fermat, and Wilson. Prerequisite: MAC 2312. (3 hr. lecture)

MAT1033
Intermediate Algebra 3 credits

This course covers the concepts of variables representing numbers. Students will learn to strengthen their algebraic skills in linear equation solving, quadratics, factoring, rational expressions, radicals, graphing linear equations and inequalities, and related applications. Special fee. Prerequisites: MAT0024 or MAT0020 with a minimum grade of S or appropriate placement test score. (3 hr. lecture)

MGF1106
Mathematics for Liberal Arts 1 3 credits

This course includes topics in geometry, probability and statistics, and sets and logic. It also covers selected topics in the history of mathematics. Prerequisite: MAT 1033. Gordon Rule Assigned. (3 hr. lecture)

MGF1107
Mathematics for Liberal Arts 2 3 credits

This course introduces the student to the concepts of financial mathematics, linear and exponential growth, numbers and number systems, history of mathematics, elementary number theory, voting techniques, and graph theory. Prerequisite: MAT 1033 with a grade of "C" or better or equivalent. Gordon Rule Assigned. (3 hr. lecture)

MGF1118L
Math Computation Review 1 credit

The purpose of this course is to prepare for the computational section of the CLAST exam. This course will cover all of the computational competencies of the CLAS exam as well as general test taking skills. This course will not count as a Gordon Rule mathematics course. Prerequisite: Departmental Permission. May be repeated. (2 hr. lab.)

MTB1103
Business Mathematics 3 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. (3 hr. lecture)

MTB1302L
Business Mathematics
Laboratory 1 credit

Provides the business mathematics student with support to achieve the objective of MTB 1103. (2 hr. lab.)

MTB1322
Technical Mathematics 2 3 credits

Applications of algebra, trigonometry, and analytic geometry needed in technical programs. Prerequisite: MAC 1105. (3 hr. lecture)

MTG2204
Geometry for Educators 3 credits

This course emphasizes Euclidean Geometry. The course includes measurements and properties of plane and solid figures, sets logic and proofs. Gordon Rule Assigned. Prerequisite: MAC 1105. (3 hr. lecture)

MTG3214
Euclidean Geometry 4 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. (4 hr. lecture)

Mathematics College Preparatory

MAT0018
Developmental Mathematics 1 4 credits

The student will learn operations with whole numbers, integers, fractions, decimals, percent 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. Placement test scores or referral determine admission. Special fee. (2 hr. lecture; 4 hr. lab.)

MAT0022C
Developmental
Mathematics Combined 5 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. Placement test scores or referral determine admission. (2 hr. lecture; 4 hr. lab.)

MAT0028
Developmental Mathematics 2 4 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. Special fee. Prerequisite: MAT0018 with a minimum grade of S or placement test scores. (2 hr. lecture; 4 hr. lab.)

MAT0029
Developmental Mathematics
for Statistics 3 credits

Students will investigate ratios, proportions, scaling, modeling with equations and inequalities, tables, graphs, linear functions, and exponential functions, in preparation for Statistics. Students 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: Appropriate Placement Score or Recommendation of Chairperson; Corequisite: STA 2023, Special Section of STA2023 as part of the StatWay Project is required. (3 hr. lecture)

Medical Laboratory Technology

MLT1040L
Introduction to Medical
Laboratory Technology 1 credit

Collection of blood by venipuncture, skin puncture and donor room techniques. This includes handling of specimens, professional ethics, basic anatomy and physiology of the circulatory system, medical terminology and safety practices including those for AIDS patients. (2 hr. lab.)

MLT1191
Histotechnology 1 3 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. (3 hr. lecture)

MLT1191L
Histotechnology 1 Lab 2 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. (4 hr. lab.)

MLT1195C
Tissue Identification 1 3 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. (2 hr. lecture; 2 hr. lab.)

MLT1196
Laboratory Safety
and Regulations 2 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. (2 hr. lecture)

MLT1210C

Clinical Urinalysis with Lab 2 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. Laboratory fee. A.S. degree credit only. (1 hr. lecture; 2 hr. lab.).

MLT1300

Clinical Hematology 2 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. A.S. degree credit only. (2 hr. lecture)

MLT1300L

Clinical Hematology Laboratory 2 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. Laboratory fee. A.S. degree credit only. (4 hr. lab./clinic).

MLT1330

Clinical Coagulation 1 credit
Didactic study of hemostasis, various clotting mechanisms, and related disease states. Corequisite: MLT 1130L. A.S. degree credit only. (2 hr. lecture)

MLT1330L

Clinical Coagulation Laboratory 1 credit
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. Laboratory fee. A.S. degree credit only. (2 hr. lab.)

MLT1500

Clinical Immunology/Serology 2 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. A.S. degree credit only. (2 hr. lecture)

MLT1500L

Clinical Immunology/Serology Laboratory 1 credit
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. A.S. degree credit only. Laboratory fee. (2 hr. lab.)

MLT1610

Clinical Chemistry 1 2 credits
Theoretical concepts and principles of carbohydrate, no 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. A.S. degree credit only. (2 hr. lecture)

MLT1610L

Clinical Chemistry 1 Laboratory 2 credits
Performance of chemistry procedures on body fluids with emphasis on manual and automated instrumentation. Prerequisite: CHM 1025L. Laboratory fee. A.S. degree credit only. (4 hr. lab./clinic).

MLT1752

Quality Control Laboratory Mathematics 2 credits
Emphasis on mathematical computations related to procedures in the clinical laboratory including dilutions, solutions, colorimetry, 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. (2 hr. lecture)

MLT1840L

Histotechnology Practicum 1 5 credits
This is a clinical experience in which students will learn the techniques of processing human tissue for histological purposes. Prerequisite: MLT 2192. (15 hr. clinic).

MLT2180C

Infectious Diseases & Control Practices 3 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. (2 hr. lecture; 2 hr. lab.)

MLT2192

Histotechnology 2 3 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. (3 hr. lecture)

MLT2192L

Histotechnology 2 Laboratory 2 credits
This course is a continuation of histotech-

nology Lab 1. Students will be introduced to more complex laboratory techniques in histotechnology. Prerequisite: MLT 1191L; Corequisite: MLT 2192. (2 hr. lecture; 4 hr. lab.)

MLT2197C

Tissue Identification 2 4 credits
This course will provide the students with the correlations between histotechnological procedures and disease 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. (2 hr. lecture; 4 hr. lab.)

MLT2198

Histochemistry 3 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. (3 hr. lecture)

MLT2198L

Histochemistry Laboratory 2 credits
This course will introduce students to biochemical used in histology with emphasis on laboratory preparation and use of histochemical and immune histochemical stains. Prerequisite: CHM 1033L; Corequisite: MLT 2198. Laboratory fee. (4 hr. lab.)

MLT2403

Clinical Microbiology 2 2 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. (2 hr. lecture)

MLT2403L

Clinical Microbiology Lab 2 2 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. (4 hr. lab.)

MLT2440

Clinical Microbiology 1 1 credit
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. (1 hr. lecture)

MLT2440L

Clinical Microbiology Lab 1 1 credit
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. Laboratory fee. (2 hr. lab.)

MLT2525

Immuno-hematology 2 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. A.S. degree credit only. (2 hr. lecture)

MLT2525L

Immuno-hematology Laboratory 2 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. Laboratory fee. A.S. degree credit only. (4 hr. lab.)

MLT2620

Clinical Chemistry 2 2 credits
Theoretical concepts and principles of proteins, enzymes, and lipids with emphasis on their relationship to various disease states. Prerequisite: MLT1610; Corequisite: MLT 2620L. A.S. degree credit only. (2 hr. lecture)

MLT2620L

Clinical Chemistry 2 Laboratory 1 credit
Performance on those analyses identified in MLT 2620 including electrophoresis and quality control. Prerequisite: MLT 1610L. Corequisite: MLT 2620. Laboratory fee. A.S. degree credit only. (2 hr. lab.)

MLT2624L

Special Techniques in Clinical Chemistry 2 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. Laboratory fee. A.S. degree credit only. (4 hr. lab.)

MLT2807L

Hospital Practicum: mmuno-hematology 3 credits
A supervised laboratory rotation in a clinical immuno-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 2525, 2525L; Corequisite: MLT 2930. A.S. degree credit only. (9 hr. clinic)

MLT2809L

Hospital Practicum: Hematology 3 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. A.S. degree credit only. (9 hr. clinic)

MLT2810L

Hospital Practicum: Chemistry 3 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. A.S. degree credit only. (9 hr. clinic)

MLT2811L

Hospital Practicum: Microbiology 3 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. A.S. degree credit only. (9 hr. clinic)

MLT2841L

Histotechnology Practicum 2 5 credits
This clinical experience will introduce the students to the basic techniques of microscopy, staining and preparation of human tissue for anatomical pathology. Corequisite: MLT 1840L. (15 hr. clinic)

MLT2930

Medical Laboratory Technology Seminar 2 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. A.S. degree credit only. (2 hr. seminar)

MLT2931

Histotechnology Seminar 2 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. (2 hr. lecture)

Meteorology

MET1010

Introduction to Weather 3 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. Optional laboratory, MET 1010L. (3 hr. lecture)

MET1010L

Introduction to Weather Laboratory 1 credit
An elective laboratory to accompany MET 1010. An investigation through experimentation of fundamental meteorological problems. Map analysis, temperature and humidity experiments. Pre/Corequisite: MET1010. Laboratory fee. (2 hr. lab.)

MET3702

General Meteorology 3 credits
This course will cover general knowledge in meteorology. The student will learn about the atmospheric structure and composition, weather and circulation systems, physics of atmospheric processes; as well as global climate and climate change and their impact on human activities. Corequisite MET 3702L. (3 hr. lecture)

MET3702L

General Meteorology Laboratory 1 credit
The meteorology lab is a separate 1 credit course designed to be taken in conjunction with a meteorology lecture. Experiments performed each week are chosen with the material being studied in the lecture. Corequisite: MET3702. (2 hr. lab.)

Military Science

Air Force ROTC (AFR)

Miami Dade College, in cooperation with the Department of Aerospace Studies, Air Force Reserve Officer Training Corps (AFROTC), at the University of Miami, provides academic instruction and training experiences leading to commissioned service in the United States Air Force.

AFROTC is an educational program designed to give men and women the opportunity to become Air Force officers while completing a bachelor's degree. The AFROTC program is designed to prepare them to assume positions of increasing responsibility and importance in the modern Air Force.

AFROTC offers several routes to an Air Force commission. Optimally, the program lasts four years, but it can be completed in three, two or even just one year if you are majoring in a critically needed area. Depending on the program chosen, atten-

dance at either a four-week or five-week summer field training course is required.

The four-year AFROTC program is comprised of a two-year basic course in Air Force organization and the development of air power, a four-week field training course at an Air Force base during the summer, and a two year advanced course in improving communication skills, leadership, and managerial skills, and knowledge of national security issues necessary for becoming an Air Force Officer. Cadets who complete the basic course program at MDC are eligible to apply for selection into the AFROTC advanced course at any 4-year college or university offering these last two years of the AFROTC program.

AFROTC cadets will receive junior officer training, career orientation, and learn how the Air Force operates. Travel to and from the base where field training occurs is paid for by the Air Force. The end product of the AFROTC program is to produce second Lieutenants in the Air Force upon graduation. For more information, contact the detachment at 305-284-2870 or visit www.miami.edu/aerospace-studies.

ENROLLMENT

There is no military obligation to sign up for AFROTC. To take classes students must be U.S. citizens or resident aliens, and must be U.S. citizens to receive a commission. It is possible to begin AFROTC as a resident alien and earn a commission once citizenship is obtained. AFROTC cadets must also pass the Air Force Officer Qualifying Test, a physical fitness test including a 1.5 mile timed run, push-ups and sit-ups and pass a Department of Defense physical exam in order to be eligible for scholarships and ultimately commissioning.

SCHOLARSHIPS

A variety of AFROTC scholarships for one, two, three, and four years are available on a competitive basis and include a \$750 textbook allowance per semester plus a non-taxable \$250-\$400 stipend each month during the school year. Some scholarships provide full college tuition while others begin at \$15,000 per year. In selected academic areas, scholarships may extend to meet a five year degree program recognized by the college. The one year program is for students preparing for occupations for which the Air Force has a special need. The majority of two to four year scholarships are for students pursuing degrees in certain fields of engineering, science and math, with a limited number going to other academic degrees. A number of scholarships are also available to students enrolled in certain non-technical degree programs such as: business administration, accounting, economics and management. Scholarships for careers in the medical field are also offered.

BENEFITS

All AFROTC cadets receive uniforms, books and equipment for ROTC classes at no cost. Upon being commissioned a 2nd Lieutenant in the Air Force, you will receive a starting salary and allowances worth more than \$40,000

per year. Free medical and dental care, 30 days annual vacation with pay and added educational benefits are also part of the compensation package.

AFR1101

The Foundation of the

United States Air Force - Part 1 1 credit

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 credit

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 credit

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 credit

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.

*Leadership Laboratory Offered Fall and Spring Semesters

Leadership Laboratory (LLAB) is a dynamic and integrated grouping of leadership developmental activities designed to meet the needs and expectations of prospective Air Force second lieutenants and complement the AFROTC academic program. It is a student planned, organized, and executed practicum conducted under the supervision of the detachment commander and commandant of cadets.

Army ROTC (MSL)

The Army Reserve Officer Training Corps a college elective that is designed to and instill

the leadership skills necessary become officers in the active Army, National Guard, or Army Reserves. Students who complete the ROTC curriculum and earn a bachelor degree will, in most undergraduate majors offered by local universities, be commissioned as second lieutenants. Army ROTC teaches classes and maintains offices at both the Kendall and North campuses.

ENROLLMENT

Freshman and sophomore students may sign up for the MSL courses directly through MDC. There is no military obligation to take the course. At a minimum, students must be Resident Aliens to participate and must be U.S. citizens to earn a commission.

Students transferring to Florida International University, Florida Atlantic University, University of Miami, Barry University or Florida Memorial College may be eligible to complete the program and earn a commission.

SCHOLARSHIPS

Three and two-year scholarships are offered to qualified ROTC students for use at one of the universities listed above. Scholarships pay up to \$20,000 annually toward tuition, \$900 annually for books, and \$300 to \$500 monthly directly to the student. For more information, contact the Enrollment Officer at (305) 237-2785 or (305)348-1619.

SPECIAL PROGRAMS

Prior service members and members of the National Guard and Army Reserve have special entrance consideration and may be entitled to other monetary benefits. Call the number listed above for more information. Sophomore students preparing to enter a university and that did not participate in ROTC during their first two years in college may attend a five-week ROTC basic course during the summer. This course is voluntary and does not require enlistment or further commitment to the service in order to attend. All transportation, lodging, uniforms and meals are provided. Additionally, students earn \$800-\$900 for attendance.

BENEFITS

All cadets receive uniforms, books, and equipment at no extra cost. Contracted students, regardless of scholarship, receive \$300 to \$500 monthly. Once commissioned, active duty Second Lieutenants earns a starting military compensation package of \$48,114.70 annually, have 30 days paid vacation annually, are entitled to further education benefits, and free medical/dental care.

MSL1001

First Year Basic Army ROTC 2 credits

Introduction to Army organizations, military customs, basic marching drills, map reading, and land navigation techniques, down-proofing, rappelling, river crossing techniques, and physical fitness. Physical fitness training and laboratory required.

MSL1002

First Year Basic Army ROTC 2 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 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 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.

Music**MUC2101**

Composition 1 2 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. (2 hr. lecture)

MUC2102

Composition 2 2 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. (2 hr. lecture)

MUC2001

Experimental Composition 3 credits
Experience with 20th century compositional techniques through listening, analysis, composition, and performance. May be repeated for credit by permission of the instructor. Prerequisite: MVK 1111. (3 hr. per week)

MUC2101

Composition Skills 3 2 credits
This course is a continuance of the composition workshop 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. (2 hr. lecture)

MUC2102

Composition Skills 4 2 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. (2 hr. lecture)

MUC2601

Introduction to Songwriting 3 credits
This course explores the art and craft of popular song writing. Students will learn the basics of lyric writing, chord progressions, melodic creation, and structure as they apply to popular song. (3 hr. lecture)

MUC2617

Songwriting 2 3 credits
This course continues the study of the art and craft of popular songwriting. Students will learn techniques of lyric writing, chord progressions, melodic creation, and structure as they apply to popular song. Prerequisite: MUC2601. (3 hr. lecture)

MUE1430

Voice Techniques 1 credit
Class instruction designed to provide basic performance and teaching skills in voice or instruments from each area. (2 hr. per week)

MUE1440

String Techniques 1 credit
Class instruction designed to provide basic performance and teaching skills in voice or instruments from each area. (2 hr. per week)

MUE1450

Woodwind Techniques 1 credit
Class instruction designed to provide basic performance and teaching skills in voice or instruments from each area. (2 hr. per week)

MUE1460

Brass Techniques 1 credit
Class instruction designed to provide basic performance and teaching skills in voice or instruments from each area. (2 hr. per week)

MUE1470

Percussion Techniques 1 credit
Class instruction designed to provide basic performance and teaching skills in voice or instruments from each area. (2 hr. per week)

MUH2111

Survey of Music History 1 3 credits
An introduction to the history of musical

styles from antiquity through the Baroque Period by the examination of representative literature. (3 hr. lecture)

MUH2112

Survey of Music History 2 3 credits
An introduction to the history of musical styles from the Baroque Period through the present by the examination of representative literature. Prerequisite: MUH 2111. Gordon Rule assigned. (3 hr. lecture)

MUL1010

Music Appreciation 3 credits
The development of the various styles, forms, and idioms, in music. The emphasis is given to the student's ability to understand and enjoy music. (3 hr. lecture)

MUL2380

Jazz and Popular Music in America 3 credits
A survey of the development of popular and jazz music with an emphasis on musical styles and outstanding artists. Gordon Rule Assigned. (3 hr. lecture)

MUM1622L

Sound Reinforcement and Fundamentals Laboratory 1 credit
This course is designed to provide students with "hands on" experience in conjunction with music school performance activities. Corequisite: MUM 1662. (2 hr. lab.)

MUM1662

Sound Reinforcement Fundamentals 3 credits
Sound reinforcement fundamentals is a course designed to provide students with background in live sound reinforcement, concert sound practices, and general PA work associated with sound engineering. Corequisite: MUM 1622L. (3 hr. lecture)

MUM1949

Co-op Work Experience 1: MUM 3 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. (3 hr. lecture and field experience)

MUM2030

Commercial Music Performance 3 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. (3 hr. per week)

MUM2600**Sound Recording 1 3 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. (3 hr. lecture)

MUM2600L**Sound Recording 1 Lab 1 credit**

Participation in MUM 2600L offers students directed "hands on" experience coinciding with lectures in MUM 2600. Corequisite: MUM 2600. Special fee. (2 hr. lab.)

MUM2601**Sound Recording 2 3 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. (3 hr. lecture)

MUM2601L**Sound Recording 2 Lab 1 credit**

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. Special fee. (2 hr. lab.)

MUM2604**Multi-Track Mixdown Techniques 1 credit**

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. (2 hr. lab.)

MUM2605**Multi-Track Production Techniques 1 1 credit**

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. Must precede MUM 2606 and 2607. (1 hr. lecture)

MUM2606**Multi-Track Production Techniques 2 1 credit**

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, 2605. (1 hr. lecture)

MUM2623C**MIDI Electronic Music 1 2-3 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. Special fee. (1-2 hr. lecture; 2 hr. lab.)

MUM2624C**MIDI-Electronic Music 2 2-3 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. Special fee. (1-2 hr. lecture; 2 hr. lab.)

MUM2640L**Multi-Track Mixdown Techniques 1 credit**

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. Laboratory fee. (2 hr. lab.)

MUM2700**Music Business 1 3 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. Special fee. (3 hr. lecture)

MUM2702**Music Business 2-Careers 3 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. Special fee. Corequisite: MUM 2704. (3 hr. lecture)

MUM2703**Music Business 3-Computer 3 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. Special fee. (6 hr. lab.)

MUM2704**Music Business 4-Computer Applications 3 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 website, useful for promotion and networking in their own Music Business enterprise. Students will present projects in class. Special fee. Prerequisite: MUM 2703. (6 hr. lab.)

MUM2949**Co-op Work Experience 2: MUM 3 credits**

This course is designed to continue training for a second term in a student's field of study through work experience in sound engineering or related area. Students are graded on the basis on documentation of learning acquired as reported by student and employer. All students must contact the Cooperative Education office to obtain registration approval. Prerequisite: Co-op approval and completion of MUM 1949 Co-op Work Experience. (3 hr. lecture and field experience)

MUN1120**Concert Band 1-3 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. (2-6 hr. lab.)

MUN1210**Symphony Orchestra 1-3 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. (2 - 6 hr. lab.)

MUN1310**College Choir 1 credit**

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. (3 hr. per week)

MUN1340**Chamber Singers 1 credit**

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. (3 hr. per week)

MUN1391**Gospel Ensemble 1 credit**

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. (3 hr. per week)

MUN1420

Chamber Music, Woodwind Ensemble 1-3 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. (3-9 hr. per week)

MUN1430

Chamber Music, Brass Ensemble 1-3 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. (3-9 hr. per week)

MUN1440

Percussion Ensemble 1-3 credits
An opportunity for percussion majors to gain experience in ensemble playing. Open to all percussion students with the permission of the instructor. May be repeated for credit (3-9 hr. per week)

MUN1460

Chamber Music, Strings and Mixed Ensemble 1-3 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. (3-9 hr. per week)

MUN1480

Guitar Ensemble 1-3 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. (3-9 hr. per week)

MUN1710

Jazz Workshop 1-3 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. (3-9 hr. lab.)

MUN1720

Vocal Jazz/Pop Ensemble 1 credit
The study and performance of jazz and commercial music for vocal ensemble, including improvisation. May be repeated for credit. (3 hr. per week)

MUN2030

Performance Lab 1 credit
Lab held in conjunction with weekly concert hour performance. This course is designed to provide music majors with the varied musical experiences necessary to broaden a musician's background. May be repeated for credit. (1 hr. lecture)

MUN2341

Vocal Ensemble 2-3 credits
An in-depth performance experience including classical and popular choral literature. Extensive public performance schedule provides professional training. Prerequisite: permission of instructor. Maybe repeated for credit. (7.5 hr. lab.)

MUN2410

String Ensemble 2-3 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. (7.5 hr. lab.)

MUN2473

Early Music Consortium 1 credit
The performance of chamber music to introduce the instruments, literature, styles, and performance practices of the music of the Middle Ages, Renaissance, and Baroque periods. Enrollment requires the instructor's permission and selectivity is dependent upon the instrumentation required and the instruments available. Prerequisite: by audition or permission of instructor. May be repeated for credit. (3 hr. per week)

MUN2711

Jazz Ensemble 2-3 credits
A performing group providing advanced skill in reading and interpreting jazz literature. Prerequisite: Permission of instructor. May be repeated for credit. (7.5 hr. lab.)

MUN2712

Studio Jazz 1 credit
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. (3 hr. lecture)

MUO1501

Opera Workshop 1-3 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. (3-9 hr. lab.)

MUS1211

Diction in Singing 1 2-3 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. (2-3 hr. lecture)

MUS1241

Diction in Singing 2 2-3 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. (2-3 hr. lecture)

MUS1935

Piano Seminar 1-3 credits
Extended rehearsal schedule provides acquisition of specialized ensemble and accompanying performance techniques. Literature includes classical and popular. May be repeated for credit or taken for variable (1-3) credits by permission of instructor. (7.5 hr. per week)

MUS2334

Basic Multi-Track Tape Recording & Studio Techniques 3 credits
This course provides instruction for composers and performers using basic recording studio equipment to produce their own musical recordings. Emphasis will be placed on line level monitoring and recording procedures in MIDI sequencing production. Prerequisites: MUC 2211 and MUM 2623C or permission of instructor. (2 hr. lecture; 2 hr. lab.)

MUT1001

Fundamentals of Music Theory 3 credits
Basic music reading, notation, scales, intervals, triads, keys, rhythm, and meter. For students with little or no previous musical experience. Corequisite: MUT 1003. (3 hr. lecture)

MUT1003

Fundamentals of Music Theory Lab 1-3 credits
The development of basic aural skills through sightsinging and ear training exercises. Corequisite: MUT 1001. (2-6 hr. per week)

MUT1111

Theory 1 3 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. (3 hr. lecture)

MUT1112

Theory 2 3 credits
The techniques of writing four-part chord progressions using root position and inver-

sions 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. (3 hr. lecture)

MUT1241
Sightsinging & Ear Training 1 Year **1-2 credits**
The development of aural skill by means of rhythmic and melodic dictation and sightsinging. Prerequisite: MUT 1241 for 1242; Corequisites: MUT 1111, 1112. (2-4 hr. per week)

MUT1242
Sightsinging & Ear Training 2 Year **1-2 credits**
The development of aural skills by means of rhythmic and melodic dictation and sightsinging. Prerequisite: MUT 1241 for 1242; Corequisites: MUT 1111, 1112. (2-4 hr. per week)

MUT2116
Theory 3 **3 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. (3 hr. lecture)

MUT2117
Theory 4 **3 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. (3 hr. lecture)

MUT2238
Introduction to Jazz Keyboard Harmony **1 credit**
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. Special fee. (2 hr. per week)

MUT2239
Jazz Keyboard Harmony 2 **1 credit**
Experience with extended and altered harmonic progression. Will include harmonic analysis and bi tonal structures. Prerequisite: MUT 2238; Corequisite: MUT 2352. (2 hr. per week)

MUT2246
Sightsinging and Ear Training 1 **1-2 credits**
Develops aural and visual skills by means of rhythmic, melodic and harmonic dictation and sightsinging. Emphasis is on chromatic

materials. Prerequisites: MUT 1242 for 2246, MUT 2246 for 2247; Corequisites: MUT 2116, 2117. (2-4 hr. per week)

MUT2247
Sightsinging and Ear Training 2 **1-2 credits**
Develops aural and visual skills by means of rhythmic, melodic and harmonic dictation and sightsinging. Emphasis is on chromatic materials. Prerequisites: MUT 1242 for 2246, MUT 2246 for 2247; Corequisites: MUT 2116, 2117. (2-4 hr. per week)

MUT2272
Music Theory & Ear Training 2 **3 credits**
This course is a continuation of Music Theory 1 with an emphasis on conventional harmonic practice. Traditional four-part writing in the styles of the 18th and 19th centuries are covered. Examples from a variety of media are given. Creative expression is emphasized with students providing their own compositions to demonstrate musical concepts. Performance at the keyboard of simple progressions and improvisation using pentatonic and/or whole-tone scales are objectives of this course. Sight-singing and ear training are continued. (3 hr. lecture)

MUT2351
Introduction to Popular Music Arranging **3 credits**
Provides basic experience with instrumental, ranges, transpositions, two- and three-part writing. Prerequisite: MUT 1112 or permission of instructor; Corequisite: MUT 2238. (3 hr. per week)

MUT2352
Popular Music Arranging 2 **3 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. (3 hr. per week)

MUT2641
Introduction to Jazz Improvisation 1 **3 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. Special fee. (3 hr. per week)

MUT2642
Jazz Improvisation 2 **3 credits**
A continuation of Introduction to Jazz Improvisation 1 with the introduction to modal improvisation, jazz structures, and complex harmonic progressions. Prerequisite: MUT 2641. (3 hr. per week)

Music - Applied

Principal Instrument **2 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. Special fee. May be repeated for credit. (1 hr. per week)

FIRST YEAR	
MVB1311	Trumpet
MVB1312	French Horn
MVB1313	Trombone
MVB1314	Baritone Horn
MVB1315	Tuba
MVJ1310	Jazz Piano
MVJ1311	Jazz Voice
MVJ1312	Jazz Violin
MVJ1313	Jazz Guitar
MVJ1314	Electric Bass
MVJ1315	Jazz Flute
MVJ1316	Jazz Saxophone
MVJ1317	Jazz Trumpet
MVJ1318	Jazz Trombone
MVJ1319	Jazz Percussion Drum Set
MVK1311	Piano
MVK1312	Harpsichord (not repeatable)
MVK1313	Organ
MVP1311	Percussion
MVS1311	Violin
MVS1312	Viola
MVS1313	Cello
MVS1314	Bass
MVS1315	Harp
MVS1316	Guitar
MVV1311	Voice
MVW1311	Flute
MVW1312	Oboe
MVW1313	Clarinet
MVW1314	Bassoon
MVW1315	Saxophone

SECOND YEAR	
MVB2321	Trumpet
MVB2322	French Horn
MVB2323	Trombone
MVB2324	Baritone Horn
MVB2325	Tuba
MVJ2320	Jazz Piano
MVJ2321	Jazz Voice
MVJ2322	Jazz Violin
MVJ2323	Jazz Guitar
MVJ2324	Electric Bass
MVJ2325	Jazz Flute
MVJ2326	Jazz Saxophone
MVJ2327	Jazz Trumpet
MVJ2328	Jazz Trombone
MVJ2329	Jazz Percussion Drum Set
MVK2321	Piano
MVK2322	Harpsichord (not repeatable)
MVK2323	Organ (not repeatable)
MVP2321	Percussion
MVS2321	Violin
MVS2322	Viola
MVS2323	Cello
MVS2324	Bass
MVS2325	Harp
MVS2326	Guitar
MVV2321	Voice
MVW2321	Flute
MVW2322	Oboe
MVW2323	Clarinet
MVW2324	Bassoon
MVW2325	Saxophone

Secondary Instrument 1 credit

Private instruction in a secondary instrument or voice. Required for applied majors, option for music education majors. Courses in each area must be taken in sequence. Special fee. May be repeated for credit. (1/2 hr. per week)

FIRST YEAR

MVB1211	Trumpet
MVB1212	French Horn
MVB1213	Trombone
MVB1214	Baritone Horn
MVB1215	Tuba
MVJ1210	Jazz Piano
MVJ1211	Jazz Voice
MVJ1212	Jazz Violin
MVJ1213	Jazz Guitar
MVJ1214	Electric Bass
MVJ1215	Jazz Flute
MVJ1216	Jazz Saxophone
MVJ1217	Jazz Trumpet
MVJ1218	Jazz Trombone
MVJ1219	Jazz Percussion Drum Set
MVK1211	Piano
MVK1212	Harpsichord (not repeatable)
MVK1213	Organ
MVO1214	Recorder (not repeatable)
MVP1211	Percussion
MVS1211	Violin
MVS1212	Viola
MVS1213	Cello
MVS1214	Bass
MVS1215	Harp
MVS1216	Guitar
MVV1211	Voice
MVW1211	Flute
MVW1212	Oboe
MVW1213	Clarinet
MVW1214	Bassoon
MVW1215	Saxophone

SECOND YEAR

MVB2221	Trumpet
MVB2222	French Horn
MVB2223	Trombone
MVB2224	Baritone Horn
MVB2225	Tuba
MVJ2220	Jazz Piano
MVJ2221	Jazz Voice
MVJ2222	Jazz Violin
MVJ2223	Jazz Guitar
MVJ2224	Electric Bass
MVJ2225	Jazz Flute
MVJ2226	Jazz Saxophone
MVJ2227	Jazz Trumpet
MVJ2228	Jazz Trombone
MVJ2229	Jazz Percussion Drum Set
MVK2221	Piano
MVK2222	Harpsichord
MVK2223	Organ
MVP2221	Percussion
MVS2221	Violin
MVS2222	Viola
MVS2223	Cello
MVS2224	Bass
MVS2225	Harp
MVS2226	Guitar
MVV2221	Voice
MVW2221	Flute
MVW2222	Oboe
MVW2223	Clarinet
MVW2224	Bassoon
MVW2225	Saxophone

MVK1111**Class Piano 1****1 credit**

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. (2 hr. per week)

MVK1112**Class Piano 2****1 credit**

A continuation of MVK 1111. Prerequisite MVK 1111 or placement by exam. (2 hr. lab.)

MVK2121**Class Piano 3****1 credit**

Further development of elementary keyboard techniques and musicianship, enhancing skills previously developed: Prerequisite MVK 1112 or placement by exam. (2 hr. lab.)

MVK2122**Class Piano 4****1 credit**

A continuation of MVK 2121. Prerequisite MVK 2121 or placement by exam. May be repeated for credit. (2 hr. lab.)

Pre-Applied Music**2 credits**

Private instrumental or vocal instruction for those music students who are not prepared to perform at the college music major level. Special fees. (1 hr. per week)

MVB1011	Pre-Applied Trumpet
MVB1012	Pre-Applied French Horn
MVB1013	Pre-Applied Trombone
MVB1014	Pre-Applied Baritone Horn
MVB1015	Pre-Applied Tuba
MVJ1010	Pre-Applied Jazz Piano
MVJ1011	Pre-Applied Jazz Voice
MVJ1013	Pre-Applied Jazz Guitar
MVJ1014	Pre-Applied Jazz Electric Bass
MVJ1016	Pre-Applied Jazz Saxophone
MVJ1017	Pre-Applied Jazz Trumpet
MVJ1018	Pre-Applied Jazz Trombone
MVJ1019	Pre-Applied Jazz Percussion
MVK1011	Pre-Applied Piano
MVK1012	Pre-Applied Harpsichord
MVK1013	Pre-Applied Organ
MVP1011	Pre-Applied Percussion
MVS1011	Pre-Applied Violin
MVS1012	Pre-Applied Viola
MVS1013	Pre-Applied Cello
MVS1014	Pre-Applied String Bass
MVS1015	Pre-Applied Harp
MVS1016	Pre-Applied Guitar
MVS1017	Pre-Applied Bass Guitar
MVW1011	Pre-Applied Flute
MVW1012	Pre-Applied Oboe
MVW1013	Pre-Applied Clarinet
MVW1014	Pre-Applied Bassoon
MVW1015	Pre-Applied Saxophone
MVV1011	Pre-Applied Voice

MVV1111**Voice Class****1 credit**

Designed for non-music students providing class instruction in the elective area of voice. Prerequisite: MUE 1430. May be repeated for credit. (2 hr. per week)

Nuclear Medicine

NMT1002L**Introduction to Nuclear Medicine Laboratory****1 credit**

The student will be introduced to the fundamentals of clinical nuclear medicine by practicing skills learned in NMT1300 Radiation Protection and NMT1750 Nuclear Medicine Procedures 1 before going to the hospital and/or clinical site for actual patient interaction. The student will be introduced to radio-pharmacology, radiopharmaceutical chemistry, characterization of radiopharmaceuticals, localization, and FDA approval process. Prerequisites: CHM1033, 1033L. (2 hr. lab.)

NMT1312**Radiation Protection****2 credits**

This course will include all local, state and federal regulations related to Nuclear Medicine, 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: NMT1002L, 1713. (2 hr. lecture)

NMT1713**Nuclear Medicine****Procedures 1****2 credits**

This course will include the imaging parameters necessary to obtain images for the basic procedures done in a Nuclear Medicine department. The imaging procedures included in this course are 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: NMT1002L, 1312. (2 hr. lecture)

NMT2102**Nuclear Medicine****Administration****2 credits**

The student will be introduced to the administrative duties required of a nuclear medicine technologist. Some areas that will be covered include patient scheduling, radioisotope ordering; scheduling and testing; communication; patient and clinician satisfaction. Prerequisites: NMT2130, 2534; Corequisites: NMT 2723, 2573, 2814C. (2 hr. lecture)

NMT2130**Nuclear Medicine****Pharmacology****2 credits**

The student will understand how to maintain radiopharmaceutical laboratory records and materials, obtain a generator eluate, 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 1312, 1713; Corequisites: NMT 2534, 2613, 2804C. (2 hr. lecture)

NMT2534**Nuclear Medicine**

Instrumentation 2 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 be introduced to the various types of devices that are used to provide information from which the diagnostic images are obtained. Prerequisites: NMT 1002L 1312, 1713, and PHY1004; Corequisites: NMT 2613, 2130, 2804C. (2 hr. lecture)

NMT2573**Nuclear Medicine QA/QC 2 credits**

The student will perform quality control testing of imaging systems; calibrate and operate scintillation counters; calibrate and operate gas-filled detectors; and perform quality assurance testing of routine imaging and assay procedures. Prerequisites: NMT 2534, 2613; Corequisites: NMT 1713, 2102, 2814C. (2 hr. lecture)

NMT2613**Nuclear Medicine Physics 2 credits**

This course includes 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, NMT 1002L, and PHY 1004; Corequisites: NMT2534, 2130, 2804C. (2 hr. lecture)

NMT2723**Nuclear Medicine Procedures 2 2 credits**

This course is a continuation of Nuclear Medicine Procedures 1 and will include the imaging parameters necessary to obtain images for the remainder of procedures performed in a Nuclear Medicine department. Instrumentation necessary to produce the required images as well as patient management during the procedures will be addressed. Prerequisites: NMT 1713, 2804C; Corequisites: NMT 2814C, 2573. (2 hr. lecture)

NMT2804C**Nuclear Medicine Clinic 1 5 credits**

This course will introduce the student to the fundamentals of clinical nuclear medicine primarily through hospital involvement. The student will gain practical experience in a Nuclear Medicine department by performing the principles taught in class. (15 hr. clinic)

NMT2814C**Nuclear Medicine Clinic 2 7 credits**

This course is a continuation of NMT 2804C Clinic 1 and will provide the student the opportunity to participate in the fundamentals of clinical nuclear medicine in the hospital involvement. The student will gain practical experience in a Nuclear Medicine department by performing the principles taught in class. (21 hr. clinic)

NMT2824C**Nuclear Medicine Clinic 3 7 credits**

This is the final course in the series of three clinical courses. In this course, the student will apply all didactic competencies in the Nuclear Medicine department setting. The student will be expected to 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 1713, 2723, 2804C, 2814C. (21 hr. clinic)

NMT2932**Nuclear Medicine Seminar 2 credits**

This course will incorporate all theory related to the production of a nuclear medicine image. How radiation protection, instrumentation, physics, pharmacology, and Quality Assurance/Quality Control interrelate will be presented. Prerequisites: NMT 1312, 2533, 2613, 2573; Corequisite: 2824C. (2 hr. lecture)

Nursing

NUR1002**Transition to Professional Nursing 6 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. Nursing care of the adult patient with moderate alterations in health will be explored within a body systems framework. The nurse's role in meeting the short and long term needs of the patient and community through preventive, therapeutic and palliative care will be presented. Prerequisites: BSC 2085, 2085L, 2086, 2086L, CHM 1033, 1033L, ENC 1101, HSC 0003, PPE 1005. Corequisites: NUR 1002L 1141, MCB 2013. (6 hr. lecture)

NUR1002L**Transition to Professional Nursing Laboratory 4 credits**

This course provides opportunities for the student with selected prior health care experiences and education to apply the nursing process. The emphasis is on health promoting activities to meet patient needs in a variety of settings including in-patient and community-based experiences. Students will be encouraged to actively participate in projects emphasizing preventive aspects of nursing care. Selected skills related to adult health nursing will be presented. Prerequisites: BSC2085, 2085L, 2086, 2086L, CHM1033, 1033L, ENC1101, HSC0003, PHI2604, PPE1005; Corequisites: NUR1002, 1142, MCB2013. (12 hr. lab.)

NUR1025**Fundamentals of Nursing 3 credits**

This course provides an introduction to the profession of nursing, the roles basic to

nursing practice, nursing process, and how nurses are involved in health promoting activities to meet client needs. Prerequisites: BSC2085, 2085L, 2086, 2086L, CHM1033, 1033L, ENC1101, HSC0003 and PHI2604; Corequisites: NUR 1142, 1213C and CLP1006. (3 hr. lecture)

NUR1025L**Fundamentals of Nursing Clinical Lab 2 credits**

This course provides an introduction to the profession of nursing, the roles basic to nursing practice and opportunities to apply the nursing process in selected clinical experiences. The emphasis is on health promoting activities to meet client needs in a variety of settings including community based experiences. Prerequisites: BSC2085, 2085L, 2086, 2086L, CHM1033, 1033L, ENC1101, HSC0003, PHI2604; corequisites: NUR1025, 1025C, 1060C, 1142. (6 hr. clinical lab.)

NUR1025C**Fundamentals of Nursing Skills Lab 2 credits**

This course provides 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. Prerequisites: Program Admission; Corequisites: NUR 1025C, 1025L, 1060C, 1142. (1 hr. lecture; 2 hr. lab.)

NUR1060C**Adult Health Assessment 2 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. Prerequisites: BSC 2085, 2085L, 2086, 2086L, CHM 1033, 1033L, ENC 1101, HSC 0003, PHI 2604; Corequisites: NUR 1025, 1025L, 1142. (2 hr. lecture)

NUR1141**Nursing Math & Pharmacology 2 credits**

Nursing Math and Pharmacology provides instruction 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 will be discussed. Prerequisites: NUR 1025, 1025C, 1025L, 1060C, 1142; Corequisites: NUR 1211, 1211L, and 1214C. (2 hr. lecture)

NUR1142**Introduction to Nursing Math & Pharmacology 1 credit**

The student will learn basic concepts of medications including history, drug nomenclature, sources of drug information, fed-

eral drug laws and standards, classifications of medications, pharmacokinetics, pharmacodynamics, variables affecting medication actions and adverse effects of medications. It also promotes learning the conceptual and mathematical operations necessary for safe and effective administration of oral, topical, and parenteral medications to adults. Application of the nursing process to medication therapy is discussed. Prerequisites: Program admission; Corequisites: NUR 1025, 1025C, 1060C or NUR 1002, 1002L. (1 hr. lecture)

NUR1211
Medical-Surgical Nursing 4 credits

This course provides an introduction to the nursing care of the adult client. Moderate alterations in a client's health will be explored within a body systems framework. The nurse's role in meeting the short and long term needs of the client and community through preventive, therapeutic and palliative care will be discussed. Prerequisites: NUR 1025, 1025C, 1025L, 1060C, 1142; Corequisites: NUR 1211, 1211L, 1214C. (4 hr. lecture)

NUR1211L
Medical-Surgical Nursing
Clinical Lab 4 credits

This course provides students with opportunities to apply advanced concepts of medical-surgical nursing. Experiences in both in-patient and community settings will be provided focusing on the nurse's role in meeting the needs of the client, family, and community. Students will be encouraged to actively participate in projects assisting clients in preventive care and maintenance of health. Prerequisites: NUR 1025, 1025C, 1025L, 1060C, and 1142; Corequisites: NUR 1141, 1210, 1213C. (12 hr. clinical lab.)

NUR1214C
Medical-Surgical Nursing
Skills Lab 1 credit

This course provides 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, 1142; Corequisites: NUR 1141, 1211, 1211L. (.5 hr. lecture; 1 hr. lab.)

NUR2212
Advanced Medical-Surgical
Nursing 3 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 will be discussed within a body systems framework focusing on the nurse's role in meeting the needs of the client, family, and community. Prerequisites: NUR 1211, 1211L, 1214C or NUR 1002, 1002L; NUR 1142, 2310, 2310L, 2420, 2420L, 2680L. Corequisite: NUR 2212L. Special fee. A.S. degree credit only. (3 hr. lecture)

NUR2212L
Advanced Medical-Surgical
Nursing Clinical 3 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 will be encouraged to actively participate in projects assisting clients in preventive care and maintenance of health. Prerequisites: NUR 1211, 1211L, 1214C or NUR 1002, 1002L; NUR 1142, 2310, 2310L, 2420, 2420L, 2680L; Corequisite: NUR 2212. Laboratory fee. A.S. degree credit only. (9 hr. clinical)

NUR2310
Pediatric Nursing 2 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: NUR 1211, 1211L, 1214C or NUR 1002, 1002L; NUR 1142; Corequisites: NUR 2310L, 2420, 2420L, 2680L. Laboratory fee. A.S. degree only. (2 hr. lecture)

NUR2310L
Pediatric Nursing
Clinical Lab 1 credit

This course allows the student to apply the nursing process to the care of clients in selected pediatric clinical settings. 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 NUR 1002, 1002L, 1142; Corequisites: NUR 2310, 2420, 2420L, 2680L. Laboratory fee. A.S. degree credit only. (3 hr. clinical)

NUR2420
Obstetrical Nursing 2 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, manage the care of the newborn and collaboration of care for the high risk client. Prerequisites: NUR1211, 1211L, 1214C or NUR 1002, 1002L; 1142; Corequisites: NUR 2310, 2310L, 2420L, 2680L. Laboratory fee. A.S. degree credit only. (2 hr. lecture)

NUR2420L
Obstetrical Nursing
Clinical Lab 1 credit

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 1211L, 1211L, 1214C; or NUR 1002, 1002L; 1142. Corequisites: NUR 2310, 2310L, 2420, 2680L. Laboratory fee. A.S. degree credit only. (3 hr. clinical).

NUR2520
Psychiatric Nursing 2 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, 1142; Corequisites: NUR 2520L. Laboratory fee. A.S. degree only. (2 hr. lecture)

NUR2520L
Psychiatric Nursing
Clinical Lab 2 credits

This course provides the student opportunities to apply concepts of psychiatric nursing. Students will learn psychiatric procedures for both in-patient and in the community settings which will focus on the nurse's role on meeting the needs of the client, family, and community. Students will be encouraged to actively participate in projects assisting clients in preventative care and maintenance of mental health. Prerequisites: NUR 1211, 1211L, 1214C or 1002, 1002L, 1142. Corequisites: NUR 2520. Laboratory fee. A.S. degree credit only. (6 hr. clinical/lab.)

NUR2680L
Community Health
Nursing Lab 1 credit

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/childrearing 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; 1142; Corequisites: NUR 2310, 2310L, 2420, 2420L. Laboratory fee. A.S. degree credit only. (3 hr. clinical)

NUR2811C
Professional Nursing
Leadership 4-5 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. Laboratory fee. A.S. degree credit only. (2 hr. lecture 9 hr. lab.)

NUR3045
Culture in Nursing Practice 3 credits

This course focuses on the use of the nursing process to provide culturally competent health care, including assessing and identifying cultural practices, values and beliefs that affect nursing practice. The student will

be introduced to the components of cultural competence, which includes awareness, sensitivity, and brokering interventions. This course will incorporate culturally relevant planning, implementation and evaluation. Minimum grade of "C" or better required. Corequisite: NUR 3805. (3hr. lecture)

NUR3069**Advanced Health Assessment 3 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. (3 hr. lecture)

NUR3165**Nursing Research 3 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. (3 hr. lecture)

NUR3178**Complementary and Alternative Health Care 3 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. (3 hr. lecture)

NUR3289**Foundations of Gerontology 3 credits**

This course focuses on the special healthcare needs of the geriatric population. Students will learn the physical, physiological, psychosocial and geropharmacologic 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 B.S.N.-R.N. program N9100. (3 hr. lecture)

NUR3674**Faith-Based Community Nursing 3 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: R.N. with at least 2 years of experience and baccalaureate degree standing. Departmental permission required. (3 hr. lecture)

NUR3805**Transition to Professional Nursing 3 credits**

This course focuses on the transition of nursing students from an associate degree program to the role of the B.S.N. graduate. The B.S.N. 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 B.S.N. 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. Corequisite: NUR 3045. (3 hr. lecture)

NUR3826**Ethical Issues in Health Care and the Environment 3 credits**

This course is designed to acquaint students with current ethical issues in health care and the environment. Students will learn to analyze issues/dilemmas using ethical decision making models. Students will learn the process involved in advocating for change in the health care setting and the global environment. Prerequisites: PHI 2604 or NUR 3041. (3 hr. lecture)

NUR3846**Foundations of Professional Nursing 3 credits**

This course explores the evolution of professional nursing knowledge and theories. Concepts are analyzed in relation to conceptual theoretical frameworks within Nursing. Students will integrate philosophies and theories in the delivery of health care and theories are introduced as a foundation for the delivery of healthcare in a multicultural/global environment. Minimum grade of "C" or better required. Corequisite: NUR 3069. (3 hr. lecture)

NUR4636**Community Health Nursing 3 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 patients 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. (3 hr. lecture)

NUR4636L**Community Health Nursing Practicum 3 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 an individual, family and/or community within a multicultural environment. Minimum grade of "C" or better required. Corequisite: NUR 4636. (144 hr. practicum)

NUR4667**Globalization of Nursing Practice 3 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 health care team. The course will include political, economical, 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. (3 hr. lecture)

NUR4827**Leadership and Management Theory 3 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. (3 hr. lecture)

NUR4945C**Advanced Concepts Practicum 3 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. (3 hr. lecture)

Nutrition

HUN1012**Nutritional Counseling 3 credits**
Basic principles of nutrition of an optimum

diet for building and maintaining sound teeth and body tissues. Emphasis is placed on nutritional counseling. (3 hr. lecture)

HUN1201

Essentials of Human Nutrition 3 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. (3 hr. lecture)

Oceanography

OCE1001

Introduction to Oceanography 3 credits
The oceans, their nature and extent. The causes and effects of waves and current; biology of sea life; geology of the sea floor, erosion and bottom deposits and related meteorological and economic effects. (3 hr. lecture)

OCE1001L

Introduction to Oceanography Laboratory 1 credit
An introduction to principles of ocean basin and sea water with a survey of the origins of oceanic patterns and climatic relationships. (2 hr. lab.)

OCP3002

Survey of Oceanography 3 credits
This course explores the ocean origin, physical properties, salinity, temperature, sound, radiative properties, heat budget and climatic controls, tides, wind-driven motion, monsoon circulation, El Niño phenomenon, subsurface water masses, oceanic circulation and paleoclimates. This course is designed for upper level students pursuing a B.S. in Science Education. Prerequisites: GLY 1010, OCE1001; Corequisite: OCP 3002L. (3 hr. lecture)

OCP3002L

Survey of Oceanography Laboratory 1 credit
A laboratory course designed to give students hands-on knowledge of specific concepts discussed in OCP 3002. (2 hr. lab.)

Office Technology

OST1100

Beginning Keyboarding 3 credits
This course emphasizes techniques and skills in keyboarding and introduces how to format business papers such as letters, manuscripts and tabulated material. Corequisite: OST 1100L. Special fee. (3 hr. lecture)

OST1100L

Beginning Keyboarding

Laboratory 1 credit
This one-credit keyboarding lab will enable students to practice speed and accuracy drills and to complete class problem assignments given in the Beginning Keyboarding class. Special fee. (2 hr. lab.)

OST1108

Keyboarding Skillbuilding 2 credits
This course emphasizes building speed and accuracy in keyboarding, using proper techniques. Students will pretest, identify individual weaknesses, practice the prescribed drills, develop rhythmic typing skills through the use of tapes, post-test, and compare improvement in accuracy and/or speed. Prerequisite: OST 1100 or knowledge of the keyboard. Special fee. (2 hr. lecture)

OST1110

Keyboarding Application 3 credits
This course emphasizes keyboarding speed and accuracy and provides training in the keying and formatting of business correspondence, including letters, memorandums, reports, tables with special features, and miscellaneous documents such as itineraries, news releases, and agendas. Prerequisite: OST 1100 or credit by examination. Corequisite: OST 1110L. Special fee. (3 hr. lecture)

OST1110L

Keyboarding Application Laboratory 1 credit
This one-credit keyboarding lab will enable students to develop keyboarding/formatting production speed and accuracy. Prerequisite: OST 1100 or credit by examination; Corequisite: OST 1110. Special fee. (2 hr. lab.)

OST1141

Keyboarding for Computers 1 credit
This course emphasizes techniques and skills in keyboarding. Special fee. (2 hr. lab.)

OST1330

Business English 3 credits
Business English covers the study of the principles and rules of punctuation, capitalization, spelling, and grammar. The course emphasizes the application of these principles to enable the student to use correct English and to develop good communication skills. Special fee. (3 hr. lecture)

OST1601

Machine Transcription 1 3 credits
This course provides an introduction to transcription from audio cassettes using transcribing equipment. Emphasis in this first-level transcription class is placed on simultaneously operating equipment and applying grammar, formatting, proofreading, and punctuation skills. Rough draft copies are prepared and proofread before final copies are produced. Pre/Corequisites: Students entering this course should have a typing skill of at least 30 words per minute or have successfully completed OST 1100, Beginning Keyboarding, and should have knowledge of a word processing

software application. The student should also have completed OST 1330, Business English. Special fee. (3 hr. lecture)

OST1700

Word Processing Office 1 credit
This entry-level 1-credit course will introduce basic functions of a word processing program currently on the market. This course covers basic functions and simple applications using the word processing program. Special fee. (1 hr. lecture)

OST1702

Office Procedures 1 3 credits
This course introduces students to careers in office technology and emphasizes various ways information is electronically processed in today's office environment. Special emphasis is placed on units in career information, business telephone usage, filing, and human relations skills needed to be successful as an office worker. Corequisites: OST 1100, 1100L, 1330. Special fee. (3 hr. lecture)

OST1741

Beginning Word Processing 3 credits
In this course the student will be learning basic functions using a popular word processing, basic functions, and simple applications using the word processing program. In addition, this course covers the basic functions and information about Microsoft Windows, the disk operating system. The student will also be required to complete lab assignments. Corequisite: OST 1741L. Special fee. (3 hr. lecture)

OST1741L

Beginning Word Processing Laboratory 1 credit
This course is a Corequisite to the Beginning Word Processing course. In this course the student will be applying basic functions using a popular word processing program currently on the market. This course covers theory and definitions of word processing, basic functions, and simple applications using the word processing program. In addition, this course covers the basic functions and information about Microsoft Windows, the disk operating system. Corequisite: OST 1741. Special fee. (2 hr. lab.)

OST1821

Desktop Publishing Applications 3 credits
Teaches how to use a desktop publishing software program on a microcomputer system with a mouse. Students will learn how to design different types of publications to include text and graphics for newsletters, flyers, posters, brochures, and booklets or for any other publishing need. No prior design or publishing experience is required. A.S. degree credit only. Prerequisite: OST 1741. Special fee; (3 hr. lecture)

OST1851

Spreadsheets for the Office 1 credit
This entry-level 1-credit class emphasizes

an introduction to the use of a spreadsheet for microcomputers. The class will provide an understanding of what a spreadsheet is, how it works, and its applications in business will be introduced. Classes are conducted in a laboratory environment where a micro-computer is available for each student. The content of this class will continually change to keep pace with current technology. Special fee. (1 hr. lecture)

**OST2221
Machine Shorthand 1 4 credits**

This is the beginning course in machine shorthand. This course emphasizes learning to write the Phoenix theory on the shorthand machine as well as the ability to read rapidly from shorthand notes. The student will be required to write vocabulary words on the shorthand machine and then transcribe them into correct English. Good skills in grammar and spelling are necessary for success in this course. Pre/Corequisite: OST 1100. Special fee. (4 hr. lecture)

**OST2222
Machine Shorthand 2 4 credits**

This is the second course in machine shorthand. This course emphasizes reviewing the Phoenix theory on the shorthand machine as well as to continue to increase speed on the shorthand machine. The student will be required to take timed dictation on the shorthand machine and then transcribe on a keyboard utilizing all the skills of a good transcriptionist. Good skills in grammar and spelling are necessary for success in this course. Prerequisite: OST 2221. Special fee. (4 hr. lecture)

**OST2223
Machine Shorthand 3 3 credits**

This is the intermediate course in machine shorthand. This course emphasizes two-voice dictation, jury charge, and literary dictation. The student will be required to take timed dictation on the shorthand machine and then transcribe on a keyboard utilizing all the skills of a good transcriptionist. Good skills in grammar and spelling are necessary for success in this course. Prerequisite: OST 2222 (Machine Shorthand 2). Students entering this course should have earned a minimum of a "C" grade in Machine Shorthand 2 or the equivalent (passed dictation tests at 80 wpm for three minutes with 97 percent accuracy), should be able to type at least 35 words per minute, and should have good skills in grammar, spelling and punctuation. It is recommended that the student have completed or be enrolled in Keyboarding and Word Processing. Special fee. (3 hr. lecture)

**OST2224
Machine Shorthand 4 3 credits**

This is the fourth course in machine shorthand. This course emphasizes two-voice dictation, jury charge, and literary dictation. The student will be required to take timed dictation on the shorthand machine and then transcribe on a keyboard utilizing all the skills of a good transcriptionist. Good skills in gram-

mar and spelling are necessary for success in this course. Prerequisite: OST 2223 (Machine Shorthand 3). Students entering this course should have earned a minimum of a "C" grade in Machine Shorthand 3 or the equivalent (passed literary dictation at 100 wpm, jury charge dictation at 110 wpm, and testimony of 120 for three minutes with 97 percent accuracy), should be able to type at least 45 words per minute, and should have good skills in grammar, spelling and punctuation. At this time the student should have completed or be enrolled in Business Writing and Legal Dictation and Transcription. Special fee. (3 hr. lecture)

**OST2225
Machine Shorthand 5 3 credits**

This is the fifth course in machine shorthand. This course emphasizes two-voice dictation, jury charge, and literary dictation. The student will be required to take timed dictation on the shorthand machine and then transcribe on a keyboard utilizing all the skills of a good transcriptionist. Good skills in grammar and spelling are necessary for success in this course. Prerequisite: OST 2224 (Machine Shorthand 4). Students entering this course should have earned a minimum of a "C" grade in Machine Short hand 4 or the equivalent (passed literary dictation at 120 wpm, jury charge dictation at 140 wpm, and testimony dictation at 150 wpm for four minutes with 97 percent accuracy), should be able to type at least 45 words per minute, and should have good skills in grammar, spelling, and punctuation. At this time the student should have completed or be enrolled in Medical Dictation and Transcription. Special fee. (3 hr. lecture)

**OST2226
Machine Shorthand 6 3 credits**

This is the final course in machine shorthand. This course emphasizes achieving the speeds on two-twice dictation, jury charge, and literary dictation for passing the Registered Professional Reporter exam given by the National Court Reporters Association as well as interning in the courts, and polishing the skills needed to become a successful court reporter. Prerequisite: OST 2225 (Machine Shorthand 5). Students entering this course should have earned a minimum of a "C" grade in Machine Shorthand 5 or the equivalent (passed literary dictation at 150 wpm, jury charge dictation at 170 wpm, and testimony dictation at 180 wpm for five minutes with 97 percent accuracy), should be able to type at least 45 words per minute, and should have good skills in grammar, spelling, and punctuation. At this time the student should have completed Medical Dictation and Transcription, Legal Dictation and Transcription, and Court Procedures and Law Terms. Special fee. (3 hr. lecture)

**OST2231
Computer Aided Transcription 3 credits**

Computer Aided Transcription (CAT) teaches the students the correct techniques to use and procedures to follow when using computer aided transcription hardware and

software similar to most computer courses. Students will be given dictation to be written on a stenotype keyboard. The students will prepare transcripts utilizing a computer aided transcription system where a machine shorthand theory will be input, translated, edited, and output. Students will be evaluated on the number of transcripts completed, the quality of transcripts and attendance. Prerequisite: OST 2221. Special fee. (3 hr. lecture)

**OST2256
Medical Dictation and Transcription 3 credits**

The purpose of this course is to develop the skills in spelling medical terms, taking dictation, and transcribing medical material. Prerequisites: OST 2224, HIM 2472. Special fee. (3 hr. lecture)

**OST2335
Business Writing 3 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. Prerequisite: OST 1330. (3 hr. lecture)

**OST2362
Database Applications for Business 3 credits**

This is a comprehensive course in the use of a database for microcomputers. This course is designed to provide training on concepts, features, and commands of a database for business and office administration applications. Classes are conducted in a hands-on lecture/laboratory environment where a microcomputer is available for each student. The content of this course will continually change to keep pace with current technology. The lab emphasizes the use and practice of a database for microcomputers. Prerequisite: CGS 1060 or OST 2854C; Corequisite: OST 2362L. Special fee. (3 hr. lecture)

**OST2362L
Database Applications Laboratory 1 credit**

Emphasis is on providing practice in applying concepts, features and commands of a database for business and office administration applications. This course is designed to assist the student to create a customized database, modify the structure of an existing database, retrieve information from a database, and integrate database applications with other applications. Corequisite: OST2362. Special fee. (2 hr. lab.)

**OST2387
Certified Professional Secretary Exam Preparation 1 3 credits**

This course is designed to prepare students for the Certified Professional Secretary examination where they will demonstrate knowledge of the concepts taught in economics, Management, Behavioral Science in Business and Business Law. (3 hr. lecture)

OST2402**Office Procedures 2 3 credits**

This course provides training in office procedures and operations, human relation skills, and advanced office techniques using simulations. Prerequisites: OST 1110, 1702, 1741. Special fee. (3 hr. lecture)

OST2431**Legal Office Procedures 3 credits**

The Legal Office Procedures course will provide training in the procedures for preparing and processing legal documents and court papers. Students will perform legal office activities by applying correct legal terminology, following standard legal procedures for the functions of the court system, and employing techniques used in conducting legal research. Prerequisites: OST 1110, 1702, 2436. Special fee. (3 hr. lecture)

OST2436**Court Procedures & Law Terms 3 credits**

The course content includes information relating to the daily role of the legal office administrator and court reporter and the terminology used in the legal profession. Special fee. (3 hr. lecture)

OST2602**Machine Transcription 2 3 credits**

This course is the advanced level of transcription from audio cassettes using transcribing equipment. Emphasis in this second-level transcription class is placed on simultaneously operating equipment and applying grammar formatting, proofreading, and punctuation skills to specialized office documents. Rough draft copies are prepared and proofread before final copies are produced. Prerequisites: OST 1110, 1601. Special fee. (3 hr. lecture)

OST2760**Advanced Word Processing 3 credits**

Emphasizes enhanced functions of WordPerfect, a leading word processing software program. Topics include merging, macros, text columns, outlines, tables, footnotes, and endnotes. An introductory unit is included on a microcomputer disk operating system's concepts, features, and commands. Prerequisites: OST 1741, 1741L with grades of "C" or better; Corequisite: OST 2760L is required. (3 hr. lecture)

OST2760L**Advanced****Word Processing Lab 1 credit**

This course is a Corequisite to the Advanced Word Processing course OST 2760. In this course the student will be applying the advanced functions taught in the OST 2760 course using a popular word processing program currently on the market. This course covers the application of theory and definitions of word processing, advanced functions, and advanced applications using Windows, the disk operating system. Prerequisites: OST 1100, 1741; Corequisite: OST 2760. Special fee. (2 hr. lab.)

OST2828**Presentation Software for the Office 1 credit**

The hands-on, one credit class is designed to provide students with an introductory experience on the use of presentation graphic software for office and business applications. This class covers basic presentation software concepts, features, and functions. Classes are conducted in a laboratory environment where a microcomputer is available for each student. The content of this class will continually change to keep pace with current technology. Special fee. (1 hr. lecture)

OST2852**Spreadsheet Applications/Business 3 credits**

This hands-on, three-credit course emphasizes the use of a spreadsheet for microcomputers. This course is designed to provide concepts, features, and commands of a spreadsheet for business and office administration applications. Classes are conducted in a hands-on lecture/laboratory environment where a microcomputer is available for each student. The content of this course will continually change to keep pace with current technology. The lab emphasizes the use and practice of a spreadsheet for microcomputers. Corequisite: OST 2852L. (3 hr. lecture)

OST2852L**Spreadsheet Applications for Business Laboratory 1 credit**

Emphasis is on the use and practices of utilizing a spread sheets in a business environment. This course is designed to provide training in concepts, features, and commands of a spreadsheet for business and office administration applications. This includes designing and creating worksheets, formatting worksheets, analyzing worksheet data, and working with workbooks. Special fee. (2 hr. lab.)

OST2854C**Microcomputers for the Office 4 credits**

This hands-on, four-credit course is designed to present the first-time computer user the features of a microcomputer, how it works, and how to select a microcomputer to best fit individual needs. Students can acquire an increased awareness of the operating systems and major features of popular applications. This course offers an introduction to the fundamentals of microcomputers and specialized software used for office and business applications, including word processing, database, spreadsheets, operating systems and presentation software. Classes are conducted in a hands-on lecture laboratory environment where a microcomputer is available for each student. The content of this course will continually change to keep pace with current technology. Special fee. (3 hr. lecture; 2 hr. lab.)

OST2930**Office Administration Lab 1 credit**

This one-credit lab is designed for students who need to complete work for any Office

Administration course that does not normally require a lab course. This course gives students access to the computer lab rooms during preset lab hours. The students will be able to practice speed and accuracy drills, complete class problem assignments, complete computer software application problems, complete business English assignments, complete machine transcription assignments, complete business writing assignments and complete office procedures assignments. Corequisite: Any OST course. Special fee. (2 hr. lab.)

Paralegal

PLA1949**Co-op Work Experience 1: PLA 3 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 Cooperative 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. (3 hr. lecture)

PLA2003**Fundamentals of Law 3 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. Special fee. (3 hr. lecture)

PLA2104**Legal Research 3 credits**

This course provides students with an understanding of the process of legal analysis. Students will become familiar with research materials, tools, strategies, and learn how to locate research sources in a traditional law library. Prerequisite: PLA 2003. Special fee. (3 hr. lecture)

PLA2114**Legal Writing 3 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. Prerequisites: ENC 1101, PLA 2003, 2104. (3 hr. lecture)

PLA2203
Trial Preparation 3 credits
Trial Preparation focuses on the role of the paralegal in litigation and involves knowledge of the rules of civil procedure and the preparation and use of various written instruments utilized throughout the trial process. Prerequisites: PLA 2104, 2114. Special fee. (3 hr. lecture)

PLA2223
Trial Practice & Appeals 3 credits
Trial Practice and Appeals examines the differences between jury and bench trials, the trial process, and the role of the litigation paralegal who assists the attorney in the preparation for trial. Prerequisites: PLA 2114, 2203. Special fee. (3 hr. lecture)

PLA2273
Torts 3 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. Prerequisites: PLA 2114, 2203. Special fee. (3 hr. lecture)

PLA2303
Criminal Law & Litigation 3 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. Prerequisites: PLA 2114, 2203. Special fee. (3 hr. lecture)

PLA2600
Wills, Trust, Estate 3 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. Prerequisites: PLA 2114, 2203, REE 2040. Special fee. (3 hr. lecture)

PLA2763
Law Office Management 3 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. Prerequisites: PLA

2114, 2203. Special fee. A.S. degree credit only. (3 hr. lecture)

PLA2800
Family Law 3 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. Prerequisites: PLA 2114, 2203. A.S. degree credit only. (3 hr. lecture)

PLA2931
Legal Specialty Seminars 1 credit
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. Prerequisites: PLA 2003, 2104, 2114. A.S. degree credit only. (1 hr. lecture)

PLA2932
Legal Specialty Seminars 1 credit
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. Prerequisites: PLA 2003, 2104, 2114. A.S. degree credit only. (1 hr. lecture)

PLA2933
Legal Specialty Seminars 1 credit
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. Prerequisites: PLA 2003, 2104, 2114. A.S. degree credit only. (1 hr. lecture)

PLA2934
Legal Specialty Seminars 1 credit
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. Prerequisites: PLA 2003, 2104, 2114. A.S. degree credit only. (1 hr. lecture)

PLA2935
Legal Specialty Seminars 1 credit
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. Prerequisites: PLA 2003, 2104, 2114. A.S. degree credit only. (1 hr. lecture)

PLA2940
Legal Assisting Internship 1-3 credits
Prerequisite: Permission of the Program Director.

Philosophy And Logic

PHI1100
Introduction to Logic 3 credits
This is a foundation course in philosophy. Students will learn the basic principles of valid reasoning, and practice in the application of various techniques of analysis. (3 hr. lecture)

PHI2010
Introduction to Philosophy 3 credits
This is a foundation course in philosophy. Students will learn about topics such as epistemology, metaphysics and ethics. The course introduces the methods of philosophy, addresses some major philosophical questions and examines the views of various philosophers from around the world. Prerequisite: ENC 1101. Gordon Rule assigned. (3 hr. lecture)

PHI2070
Introduction to Eastern Philosophy 3 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. (3 hr. lecture)

PHI2604
Critical Thinking/Ethics 3 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. (3 hr. lecture)

PHM2300
Political Philosophy 3 credits
This is a foundation course in philosophy. Students will learn major political theories by examining the ideas of various political philosophers. In order to evaluate the policies and practices of contemporary societies, basic philosophical concepts which underlie modern societies such as rights, duties, legal obligations and freedoms will be discussed and analyzed. (3 hr. lecture)

Photography

PGY2110C
Color Photography 1 3-4 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. Laboratory fee. (1-2 hr. lecture; 4 hr. lab.)

PGY2111C
Color Photography 2 4 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. Laboratory fee. (1-2 hr. lecture; 4 hr. lab.)

PGY2112C
Color Photography 3 4 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. Special fee. (1-2 hr. lecture; 4 hr. lab.)

PGY2211
Portrait and Still Photography 4 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. (1-2 hr. lecture; 4 hr. lab.)

PGY2221
Illustrative Photography 1 4 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. Laboratory fee. (1-2 hr. lecture; 4 hr. lab.)

PGY2222
Fashion Photography 4 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 are stressed. (1-2 hr. lecture; 4 hr. lab.)

PGY2230
Illustrative Photography 2 4 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. Laboratory fee. (1-2 hr. lecture; 4 hr. lab.)

PGY2401C
Introduction to

Photography 3-4 credits

Fundamentals of black and white photog-

raphy 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. Laboratory fee. (1-2 hr. lecture; 4 hr. lab.)

PGY2404C
Intermediate Photography 3-4 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. Laboratory fee. (1-2 hr. lecture; 4 hr. lab.)

PGY2470C
Portfolio Preparation 4 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. Laboratory fee. (1-2 hr. lecture; 4 hr. lab.)

PGY2475
Advanced Photography 3-4 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 2410C. (2 hr. lecture; 4 hr. lab.)

Physical Education

HLP1080
Wellness 2 credits

This course enables students to assess their present aerobic fitness level, lung capacity, percentage of body fat, flexibility and strength. From data collected, the student will be able to set personal wellness goals. Lectures, demonstrations, and multi-media materials will be used to provide the scientific basis for meeting one's personal wellness goals. (2 hr. lecture/lab.)

HLP1081
Fitness & Wellness for Life 3 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. Special fee. (3 hr. lecture/lab.)

HLP1083
Weight Management 3 credits

This course is designed for students to develop an understanding of the role of exercise and nutrition as it applies to the implementation of a weight management plan. (3 hr. lecture)

PEO2321
Skills and Practices
in Volleyball 2 credits

Develops and analyzes the teaching and coaching of volleyball. This course also emphasizes skills and practices in volleyball. Special fee. (1 hr. lecture; 2 hr. lab.)

PEO2621
Skills and Practices Basketball 2 credits

Develops and analyzes the teaching and coaching of basketball. This course also emphasizes skills and practices of basketball. Special fee. (1 hr. lecture; 2 hr. lab.)

PET1949
Co-op Work Experience 1: PET 3 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 Cooperative Education Office to obtain registration approval. (3 hr. lecture)

PET2622C
Techniques of Athletic Training 3 credits

Develops competence, knowledge and skill in the prevention and care of athletic injuries. A familiarization with the latest equipment, supplies, modalities and therapeutic aids is provided. Special fee. (2 hr. lecture; 2 hr. lab.)

PET2949
Co-op Work Experience 2:
PET 3 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 Cooperative Education Office to obtain registration approval. (3 hr. lecture)

Physical Therapist Assistant

PHT1102
Anatomy for the Physical
Therapist Assistants 2 credits

Regional description of the musculoskeletal landmarks utilized in implementing and documenting assessment and treatment procedures in physical therapy. Corequisites: BSC 2085, 2085L, PHT 1201, 1201L, 1211, 1211L, PHY 1004, 1004L. (2 hr. lecture)

PHT1201
Introduction to
Physical Therapy 2 credits

Survey and history of the physical therapy profession. Role and responsibilities of the

physical therapist assistant as they react with patients and other health care workers are discussed. Overview of common medical and surgical conditions treated in physical therapy is presented. Corequisites: BSC2085, 2085L, PHT1102, 1201L, 1211, 1211L, PHY 1004, 1004L. (2 hr. lecture)

PHT1201L**Introduction to Physical Therapy Laboratory****1 credit**

Basic patient care and treatment procedures which are typically required in a physical therapy service area. Treatment procedures include the proper administration of steam packs, cold packs, paraffin, whirlpool, and gait training. Corequisites: BSC2085, 2085L, PHT 1102, 1201, 1211, 1211L, PHY 1004, 1004L. Laboratory fee. (2 hr. lab.)

PHT1211**Disabilities and Therapeutic Procedures 1****2 credits**

Cause and effect factors associated with selected orthopedic and neuromuscular disabilities. Corequisites: BSC 2085, 2085L, PHT 1211L, 1201, 1201L, 1102, PHY 1004, 1004L. (2 hr. lecture)

PHT1211L**Disabilities and Therapeutic Procedures 1 Lab****1 credit**

Laboratory practice of basic technical skills relating to electro-hydrotherapy, therapeutic exercise and patient care procedures. Corequisite: BSC 2085, BSC 2085L, PHT 1102, 1201, 1201L, 1211, PHY 1004, 1004L. Laboratory fee. (2 hr. lab.)

PHT1949**Co-op Work Experience 1:****PHT****3 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 Cooperative Education Office to obtain registration approval. (3 hr. lecture)

PHT2120**Applied Kinesiology****2 credits**

Anatomical structures and movements as related to physical therapy procedures. Recognition and understanding of biomechanics of all human motion as related to the function of the musculoskeletal system during therapeutic exercise and gait training is discussed. Prerequisites: PHT 1201, 1211, 1211L; Corequisites: BSC 2086, 2086L, PHT 2120L, 2224, 2224L. A.S. degree credit only. (2 hr. lecture)

PHT2120L**Applied Kinesiology Laboratory****1 credit**

Procedures in measuring and analyzing muscle strength and function as related

to the biomechanics of human motion. Prerequisites: PHT 1201, 1211, 1211L; Corequisites: BSC 2086, 2086L, PHT 2120, 2224, 2224L. Laboratory fee. A.S. degree credit only. (2 hr. lab.)

PHT2162**Survey of Neurological Deficits 3 credits**

Survey and description of clinical manifestations of neurological dysfunction frequently treated in physical therapy. Prerequisites: PHT 2120, 2120L, 2224, 2224L; Corequisites: PHT 2701, 2701L, 2801. (3 hr. lecture)

PHT2224**Disabilities and Therapeutic Procedures 2****4 credits**

Cause and effect factors associated with the more complex medical and surgical problems resulting in disability. Prerequisites: PHT 1201, 1211, 1211L; Corequisites: BSC 2086, 2086L, PHT 2120, 2120L, 2224. (4 hr. lecture)

PHT2224L**Disabilities and Therapeutic Procedures 2 Lab****2 credits**

Laboratory practice of more complex technical skills and competencies related to preparing equipment and treatment of patients with a variety of medical, surgical and neuromuscular disabilities. Prerequisites: PHT 1201, 1211, 1211L; Corequisites: BSC 2086, 2086L, PHT 2120, 2120L, 2224. Laboratory fee. (4 hr. lab.)

PHT2701**Rehabilitation Procedures 3 credits**

Clinical manifestations and treatment techniques related to physical therapy, intervention for children and adults with injuries and disabilities (spinal cord and brain injuries or disease, limb amputations, burns). Prerequisites: PHT 2120, 2120L, 2224, 2224L. Corequisites: PHT 2162, 2701L 2801. (3 hr. lecture)

PHT2701L**Rehabilitation Procedures Laboratory****2 credits**

Laboratory practice in the technical skills and competencies required in the total rehabilitative care and treatment of the child or adult who has had a severe injury or disease resulting in multiple disabilities. Prerequisites: PHT 2120, 2120L, 2224, 2224L; Corequisites: PHT 2162, 2701, 2801. Laboratory fee. (4 hr. lab.)

PHT2801**Clinical Practice and Conference 1****4 credits**

Beginning clinical experiences in supervised patient care activities in a variety of clinical facilities including general hospitals and physical therapy clinics. Prerequisites: PHT2120, 2120L, 2224, 2224L; PHT 2162, 2701, 2701L. (12 hr. clinic)

PHT2810**Clinical Practice and Conference 2****5 credits**

Intermediate clinical experiences in selected patient care activities under the supervision

of a licensed physical therapist. Prerequisites: PHT 2162, 2701, 2701L, 2801; Corequisite: PHT 2931. (15. hr. clinic)

PHT2820**Clinical Practice and Conference 3****7 credits**

Advanced clinical experiences in patient care activities under the direct supervision of a licensed physical therapist. Prerequisites: PHT 2810, 2931. (21 hr. clinic)

PHT2931**Seminar for Physical Therapist Assistants****3 credits**

Recognition of the expected current competency levels, and ethical and legal responsibilities of the physical therapist assistant in the health care system. Prerequisites: PHT 2162, 2701, 2701L, 2801. Corequisite: PHT 2810. A.S. degree credit only. (3 hr. lecture)

PHT2949**Co-op Work Experience 2:****PHT****3 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 Cooperative Education Office to obtain registration approval. (3 hr. lecture)

Physician Assistant

PAS1800C**Physical Diagnosis 1****2 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: BSC 2085, 2085L, 2086, 2086L, CHM 1033, 1033L. (1.5 hr. lecture; 1.5 hr. lab.)

PAS1801C**Physical Diagnosis 2****2 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: MCB 2010, 2010L, PAS 1800C, 1812, 1813, 1822C, 1823, 1831. (1.5 hr. lecture; 1.5 hr. lab.)

PAS1810C**Surgical Problems & Procedures****5 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 pre-

operative and postoperative care, including nasogastric intubation, central venous line placement, arterial and venous punctures and sterile techniques. Prerequisites: PAS 1801C, 1811, 1821, 1824, 1830. (4 2/3 hr. lecture; 1 hr. lab.)

PAS1811

Introduction to Medicine 1 for PAs 5 credits

The first course in the sequence PAS 1811, 1820. Focuses on signs, symptoms, and pathophysiology of common diseases affecting pediatric, adult and geriatric patients; diagnosis, therapeutic intervention and follow-up; patient education and preventative medicine are included. Prerequisites: MCB 2010, 2010L, PAS 1800C, 1812, 1813, 1822C 1823, 1831. (5 hr. lecture)

PAS1812

Behavioral & Community Medicine 1 for PAS 1 credit

A bio-psychosocial system approach to identify the individual, the family and community within the health care delivery system. Studies the American health care system, emphasizing the role of the PA profession, patient education, preventative medicine, community health, and medical legal ethics. Prerequisites: BSC 2085, 2085L, 2086, 2086L, CHM 1033, 1033L. (1 hr. lecture)

PAS1813

Pathophysiological Basis of Disease 1 2 credits

First course in the sequence PAS 1813, 1824. An introduction to the underlying pathologic bases for specific disease processes. Prerequisites: BSC 2085, 2085L, 2086, 2086L, CHM 1033, 1033L. (2 hr. lecture)

PAS1820

Introduction to Medicine 2 for PAs 5 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, 1821, 1824, 1830. (5 hr. lecture)

PAS1821

Behavioral & Community Education Medicine 2 for PAS 1 credit

The second course in the PAS 1812, PAS 1821 sequence. A continuation of the study of the bio-psychosocial model for health. Prerequisites: PAS 1801C, 1812, 1813, 1822C, 1823, 1831. (1 hr. lecture)

PAS1822C

Electrocardiography/ Cardiology 2 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: BSC 2085, 2085L, 2086, 2086L, CHM 1033, 1033L. (1 2/3 hr. lecture; 1/3 hr. lab.)

PAS1823

Pharmacology 2 credits

The first course in the sequence PAS 1823, 1830. The study of the preparation, uses and action of drugs. Prerequisites: BSC 2085, 2085L, 2086, 2086L, CHM 1033, 1033L. (2 hr. lecture)

PAS1824

Pathophysiological 2 credits

A continuation of PAS 1813 Focus is on cell dynamics and immunity. Prerequisites: MCB 2010, 2010L, PAS 1800C, PAS 1812, 1813, 1822C, 1823, 1831. (2 hr. lecture)

PAS1830

Pharmacotherapeutics 4 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: PAS1800C, 1812, 1813, 1822C, 1823, 1831. (4 hr. lecture)

PAS1831

Clinical Diagnostic Imaging 1 credit

A study of multiple imaging modalities employed in the diagnosis of pathologic processes. Prerequisites: BSC 2085, 2085L, 2086, 2086L, CHM 1033, 1033L. (1 hr. lecture)

PAS2840L

Internal Medicine 4 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 1810C, 1821, 1820, 1830. (18 hr. lab.)

PAS2841L

Geriatrics 2 credits

This clinical course provides the opportunity for students to become familiar with common physical and psychological problems encountered by the geriatric patient including cardiac and respiratory insufficiency, urinary tract infection, strokes and diabetes mellitus. Prerequisites: PAS 1810C, 1820, 1821, 1830. (9 hr. lab.)

PAS2842L

Psychiatry 2 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 1810C, 1820, 1821, 1830. (9 hr. lab.)

PAS2850L

Surgery 2 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 1820, 1821, 1830. (9 hr. lab.)

PAS2860L

Pediatrics 4 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 1810C, 1820, 1821, 1830. (18 hr. lab.)

PAS2866L

Family Medicine 4 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 underserved areas. Prerequisites: PAS 1810C, 1020, 1821, 1830. (18 hr. lab.)

PAS2870L

Obstetrics/Gynecology 2 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 1810C, 1820, 1821, 1830. (9 hr. lab.)

PAS2876L

Emergency Medicine 2 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 1810C, 1820, 1821, 1830. (9 hr. lab.)

PAS4470

Physician Assistant Practice Management 3 credits

This course is designed to assist the PA in understanding and applying the principles of management to a primary care practice. Students will learn the basic concepts of managing the patient/client, the office and medical team. (3 hr. lecture)

PAS4936**Contemporary Issues
for the PA****3 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. (3 hr. lecture)

PAS4946**Physician Assistant
Capstone Course****6 credits**

This is an experiential course that incorporates all the learning competencies of the BAS-HS with an option in PA courses. The student will learn to apply the knowledge, skills and abilities they have garnered throughout the program by identifying, researching and presenting a current challenge or trend in healthcare. (3 hr. lecture)

Physics

AST1002**Descriptive Astronomy****3 credits**

The solar system, the nature of electromagnetic radiation, astronomical instruments, stars, galaxies, and cosmology. Sessions are devoted to viewing the sky and to laboratory activities. Special fee. (3 hr. lecture)

AST1002L**Descriptive Astronomy
Laboratory****1 credit**

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. (2 hr. lab.)

PHY1004**Physics with Applications 1****3 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. Special fee; (3 hr. lecture)

PHY1004L**Physics with
Applications 1 Lab****1 credit**

Laboratory for PHY 1004. Prerequisite: MAT 1033; Corequisite: PHY 1004. Laboratory fee. (2 hr. lab.)

PHY1005**Physics with Applications 2****3 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: PHY 1004; Corequisite: PHY 1005L. Special fee. (3 hr. lecture)

PHY1005L**Physics with****Applications 2 Lab****1 credit**

Laboratory for PHY 1005. Prerequisite: PHY 1004; Corequisite: PHY 1005. Laboratory fee. (2 hr. lab.)

PHY1025**Basic Physics****3 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. (3 hr. lecture)

PHY2048**Physics with Calculus 1****4 credits**

Foundation course for physical science and engineering majors. PHY 2048 covers classical mechanics and thermodynamics. PHY 2049 includes electricity, magnetism, waves and optics. Prerequisites: High school physics or PHY 1025, PHY 2053 or departmental approval and MAC 2311; Corequisite: PHY 2048L. Special fee. (4 hr. lecture)

PHY2048L**Physics with Calculus 1 Lab****1 credit**

Laboratory for PHY 2048. Prerequisite: High school physics or PHY 1025 or PHY 2053 or departmental approval and MAC 2311; Corequisite: PHY 2048. Laboratory fee. (2 hr. lab.)

PHY2049**Physics with Calculus 2****4 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; Corequisites: PHY 2049L and MAC 2312. Special fee. (4 hr. lecture)

PHY2049L**Physics with Calculus 2 Lab****1 credit**

Laboratory for PHY 2049. Prerequisite: PHY 2048; Corequisites: PHY 2049 and MAC 2312. Laboratory fee. (2 hr. lab.)

PHY2053**Physics (without Calculus) 1****3 credits**

An introduction to the basic principles of physics. PHY 2053 covers mechanics, sound and thermodynamics. Prerequisite: MAC 1114 or MAC 1147; Corequisite PHY 2053L. Special fee (3 hr. lecture)

PHY2053L**Physics (without Calculus) 1****Lab****1 credit**

Laboratory for PHY 2053. Prerequisite: MAC 1114 or MAC 1147. Corequisite: PHY 2053L. Special fee. (2 hr. lab.)

PHY2054**Physics (without Calculus) 2****3 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. Special fee. (3 hr. lecture)

PHY2054L**Physics (without Calculus) 2****Lab****1 credit**

Laboratory for PHY 2054. Prerequisite: PHY 2053; Corequisite: PHY 2048. Laboratory fee. (2 hr. lab.)

PHY3019**Technology in****Physics Teaching****3 credits**

This course will expose the prospective teacher to a broad collection of technologies currently used in the physics classroom environment and beyond. The student will produce specific applications for varied educational settings, demonstrate a fair command of the most popular tools, and design original projects using the available technology. Prerequisites: PHY 2049, 2049L. (3 hr. lecture)

PHY3101**Modern Physics****3 credits**

This course will provide students with a deep understanding in areas of physics that lie beyond the scope of classical mechanics, thermo-dynamics and electromagnetism. Its content includes: the theory of relativity; wave properties of matter; an introduction to the quantum theory of atoms; the properties of molecules and solids; nuclear properties, interactions and applications; a brief description of elementary particles; and an overview of modern cosmology. The course will emphasize descriptive models and problem-solving techniques. Prerequisites: PHY 2048, 2049; Corequisite: PHY 3125L. (3 hr. lecture)

PHY3101L**Modern Physics Laboratory****1 credit**

This course is a laboratory course designed to enhance the student's practice and understanding of areas of physics that lie beyond the scope of classical mechanics, thermo-dynamics and electromagnetism. These areas are covered in PHY 3101. While the main purpose of the course is to promote scientific understanding, the student will also acquire and demonstrate skills in the observation, measurement, recording, analysis, and reporting of experimental data. Prerequisites PHY 2049, MAP 2302; Corequisite: PHY 3125. (2 hr. lab.)

PHY3504**Thermodynamics & Waves****4 credits**

This course is an introduction to mechanical

waves and classical thermodynamics. The student will learn the physics of oscillations and mechanical waves and the postulates and results of the kinetic theory of gases, the laws of thermodynamics and their applications to heat engines. (3 hr. lecture)

PHY3802L**Intermediate Physics****Laboratory****1 credit**

This is a laboratory course consisting of a series of experiments related to intermediate courses in classical mechanics, waves, thermodynamics, electromagnetism and modern physics. The student will learn skills in the design, performance and reporting of physics experiments as well as reinforcing concepts learned in the corresponding physics courses. Prerequisites: PHY 2048L, 2049L, PHY 3504. (2hr. lab.).

PHY4220**Classical Mechanics****3 credits**

This one-semester course will provide students with a deep understanding of some fundamental topics of classical mechanics, reinforcing the concepts learned in PHY 2048, and providing a sound foundation for their comprehension. Most of the topics of elementary mechanics will be studied in a rigorous manner, requiring a higher level of math. Content includes Newtonian particle mechanics, oscillations, non-inertial reference frames, central forces, dynamics of systems, mechanics of rigid bodies, the Lagrangian formulation of dynamics, and an overview of the Hamiltonian formulation. The course will emphasize problem-solving techniques and computer simulations. Prerequisites: PHY 2048, 2049, MAP2302. (3 hr. lecture)

PHY4320**Intermediate****Electromagnetism****3 credits**

This course will provide students with a deep understanding of electricity and magnetism at an intermediate level. It will reinforce the concepts learned in PHY 2049, providing a better understanding of the fundamental electromagnetic phenomena. Content includes: vector calculus, electrostatics, dielectrics, electric currents, magnetostatics, electromagnetic induction, Maxwell's equations, wave optics, and electromagnetic radiation. The course will emphasize classical models and problem-solving techniques. Prerequisites: PHY 2049, MAP 2302, PHZ 3113. (3 hr. lecture)

PHY4424**Geometrical & Physical Optics****3 credits**

This course is an intermediate study of topics in classical optics, as well as a conceptual introduction to modern optics. The student will learn the fundamental principles and applications of classical optics and optical instruments, and will gain an understanding of unfamiliar optical phenomena through inquiry activities. Prerequisites: PHY 2048, 2049, MAP 2302, PHY 3504. (3 hr. lecture)

PHZ3113**Mathematical Physics****3 credits**

This course will reinforce the background gained in the previous math courses. It will also supplement those topics with new theory and applications, while providing some powerful math tools to be used in the 3000-4000 level physics courses. Prerequisites: MAC 2311, 2312, MAP 2302, PHY 2049. (3 hr. lecture)

PSC1121**General Education****Physical Science****3 credits**

A study of the major concepts and principles from each of the following areas: physics, chemistry, and astronomy. Prerequisite: MAT1033. (3 hr. lecture)

PSC1191**Physical Science Lab****Fundamentals****1 credit**

Students will learn to develop observation, measurement, analysis, and presentation skills using hands-on collaborative physics and chemistry activities. These skills will enhance future performance in science, technology, engineering and mathematics (STEM) courses and careers. Students will use current technology as well as critical thinking. (2 hr. lab.)

PSC1515**Energy in the****Natural Environment****3 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. Special fee. (3 hr. lecture)

PSC1515L**Energy in the Natural****Environment Laboratory****1 credit**

A laboratory course designed to complement PSC 1515. Laboratory exercises explore the ways in which energy moves through the atmosphere, hydrosphere, lithosphere and biosphere, the advantages and disadvantages of various energy sources, and the potential of conservation as an energy resource. Laboratory fee. (2 hr. lab.)

Political Science

CPO2100**Comparative European Government****3 credits**

This course discusses the structures and functioning of the systems of government of three European states: Britain, France, and the Federal Republic of Germany. An attempt is made to analyze some of the current problems facing parliamentary governments, and to assess their performance in resolving them. A prior course in History or Social Science is desirable. Offered first semester. Given in English. Offered through Overseas Study Program. (3 hr. lecture)

INR1949**Co-op Work Experience 1:****INR****3 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 Cooperative Education Office to obtain registration approval. (3 hr. lecture)

INR2002**International Relations****3 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. (3 hr. lecture)

INR2440**International Law and Organization****3 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. (3 hr. lecture)

INR2949**Co-op Work Experience 2: INR****3 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 Cooperative Education Office to obtain registration approval. (3 hr. lecture)

ISS2270**Multicultural Communications and Relations****3 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. (3 hr. lecture)

POS2041**American Federal Government****3 credits**

The American Constitution and its development, the organization and functions of the

national government, political parties and the electoral process, and the relationship of the individual to the federal government. (3 hr. lecture)

POS2112**State and Local Government in America 3 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. (3 hr. lecture)

POS2141**Introduction to Issues of Urban Politics 3 credits**

Presentation and exploration of a variety of topics, priorities, advocacy strategies, crisis channeling and constructive possibilities characteristic of urban politics will be offered as these are advanced by the identification, definition and strategic management of issues in highly populated jurisdictions in the U.S.A. Economics, ethnicity, education, health care, and other issues will be featured. (3 hr. lecture)

POS2014**European Political Theory 1 3 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. (3 hr. lecture)

Portuguese Language

POR1120

Elementary Portuguese 1 4 credits
An integrated (multi-media) approach to acquire proficiency in the basic skills (of the language) - listening/understanding, speaking, reading, writing, and cross-cultural awareness. Emphasis on practical vocabulary and accurate pronunciation. Practice in class and laboratory in understanding and using the spoken language; reading and writing with progressive grammatical explanations. (4 hr. lecture)

POR1121

Elementary Portuguese 2 4 credits
A continuation of POR 1120. A proficiency-oriented course emphasizing the mastery of the basic skills of the language. Prerequisite: POR 1120. (4 hr. lecture)

POR2220

Intermediate Portuguese 1 4 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. (4 hr. lecture)

POR2221**Intermediate Portuguese 2 4 credits**

Understanding, speaking, reading, writing and cross-cultural awareness, through a systematic review of reading and writing skills with emphasis on oral as well as written expression. Prerequisite: POR 2200. (3 hr. lecture)

Psychology

CLP1006**Psychology of Personal Effectiveness 3 credits**

This is an applied psychology course which emphasizes the understanding of the principles of effective human behavior and their application to the areas of personal awareness, interpersonal relations, communication, and work/career development. (3 hr. lecture)

CLP2000**Dynamics of Behavior 3 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. (3 hr. lecture)

CLP2001**Basic Human Development 2-3 credits**

Identification and classification of personal strengths, potentials, feelings, needs and values, to articulate personal goals, and to develop behavioral guidelines to increase the possibility of achieving these goals. Emphasis is on congruity between strengths, needs, feelings, and values, and behavior in order to experience greater interpersonal integrity and self-esteem. This is an experientially-taught course, with regular use of student interaction in dyads, triads, and small group experience. (2-3 hr. lecture)

CLP2140**Abnormal Psychology 3 credits**

This course examines the major categories of mental disorders. Diagnostic criteria, treatment methods, cultural factors, public attitudes, community resources, ethical issues and legislation applicable to individuals with mental disorders are studied. The impact of mental disorders on individuals, families and society are discussed. (3 hr. lecture)

DEP2000**Human Growth and Development 3 credits**

The nature of human behavior as a dynamic developmental phenomenon. While the emphasis is psychological, an understanding of the physical aspects of development

and their social implications is included. Observation and written analysis of principles of learning involved in human development are required. The course meets teacher certification requirements in the area of psychological foundations. (3 hr. lecture)

DEP2100**Child Growth and Development 3 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. (3 hr. lecture)

DEP2481**Death Attitudes and Life Affirmation 3 credits**

An analysis of the psychology, philosophy, and social function of death and dying, especially in relation to the general negative view of death in American society. Encourages a reconstruction of the participant's approach to living through a confrontation of their fear of death and of those life-denying traits and values which inhibit their growth. The course also investigates humane possibilities for funeral, bereavement, and counseling the terminally ill. (3 hr. lecture)

INP2390**Psychology of Work 3 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. (3 hr. lecture)

PCO2731**Human Relations 3 credits**

Emphasizes an awareness of the problems of a person's relationship to others, and the known laws and generalizations about the action patterns of individuals and groups. Effort is made to develop an awareness of the techniques of effective interpersonal relations. (3 hr. lecture)

PSB2442**The Psychology of Addiction 3 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. (3 hr. lecture)

PSY1949**Co-op Work Experience 1: PSY 3 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 employ-

er. 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. (3 hr. lecture)

PSY2012

Introduction to Psychology 3 credits
Blends classic material with the most recent developments in psychological theory. Provides an understanding of human behavior as a natural phenomenon subject to scientific study. (3 hr. lecture)

SOP2002

Social Psychology 3 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. (3 hr. lecture)

SOP2772

Human Sexuality 1-3 credits
Emphasizes the interrelationships between the biological, socio-psychological and cultural aspects of human sexuality. Among the topics covered are the bio-psycho-social states of development, sexual arousal, the historical basis of Western sexual values and behavior, sex laws, the Kinsey-Masters-Johnson reports and sexuality in the arts. (1-3 hr. lecture)

Public Administration

PAD2002

Introduction to Public Administration 3 credits
Presentation and exploration of the distinct components, structure, philosophy and purposes of administration in the public (government) sector, emphasizing unique features compared to the private (business) and independent (voluntary) sectors within the contemporary United States. Concepts, competencies, ethics and professionalism in a diverse society implementing a variety of public policies through various government agencies at various levels will be studied. (3 hr. lecture)

Quantitative Methods In Business

QMB2100

Basic Business Statistics 3 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; Corequisite: QMB 2100L. Gordon Rule Assigned. (3 hr. lecture)

QMB2100L

Basic Statistics Laboratory 1 credit
Laboratory for QMB 2100. Selected examples designed to give interested students further practice in interpreting and solving business problems related to business. Corequisite: QMB 2100. Laboratory fee. Gordon Rule Assigned. (2 hr. lab.)

Radiation Therapy Technology

RAT1001

Introduction to Radiation Oncology 2 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. (2 hr. lecture)

RAT1021

Principles and Practice of Radiation Therapy 1 2 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. (2 hr. lecture)

RAT1211

Human Disease 1 credit
The relationship of the human body to neoplastic and other pathologic diseases. Topics will include cells, tissues, organs and systems. Skeletal, muscular, nervous, endocrine, circulatory, reticuloendothelial, digestive, urinary, respiratory, and reproductive systems will be discussed. Prerequisites: ENC 1101, MAC 1105, BSC 2085, BSC 2085L; Corequisites: RAT 1001, 1840. (1 hr. lecture)

RAT1242

Clinical Oncology & Pathology 2 credits
Malignant conditions, etiology, and methods of treatment. Patient management, treatment planning, patient prognosis, treatment results, and the use and effect of combined therapies will be discussed. Contributing factors, growth and biologic behavior of neoplastic diseases as well as specific types of tumors and tumor sites will also be discussed. Corequisites: RAT 1619, 2022, 2241. (2 hr. lecture)

RAT1614

Radiation Therapy Physics 1 2 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. (2 hr. lecture)

RAT1619

Elements of Treatment Planning 2 credits
Determination of radiation doses in treatment planning using computerized methodology. Corequisites: RAT 2690, 2834L. (2 hr. lecture)

RAT1657

Radiation Protection/Quality Assurance 2 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 evaluated. (2 hr. lecture)

RAT1801L

Introduction to Clinic 2 credits
Students will rotate through various diagnostic imaging areas of the hospital in order to observe the equipment, procedures, and images produced. Opportunities to apply the skills learned in HSC0003 as well as the competencies achieved in RTE1000 will be included. Prerequisite: RAT 1840. (6 hr. clinic)

RAT1804L

RAT Clinic 1 5 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. (240 hr. clinic)

RAT1814L

Clinic 2 8 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. (384 hr. clinic)

RAT1824L

Clinic 3 8 credits
Continuation of advanced patient treatment competencies under the supervision of an ARRT Certified Radiation Therapy Technologist. Prerequisite: RAT 1814L; Corequisites: RAT 2243. (24 hr. clinic)

RAT1840

Clinical Applications of Anatomy 1 credit
Content and practice experiences shall be designed for sequential development, application, analysis, integration, synthesis and evaluation of concepts and theories in clinical anatomy for radiation therapy. Through structured sequential assignments, concepts of

clinical anatomy from various modalities for radiation therapy will be discussed, examined and evaluated. Prerequisites: BSC 2085, 2085L. (1 hr. lecture)

RAT2022
Principles & Practice of Radiation Therapy 2 2 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. (2 hr. lecture)

RAT2241
Radiobiology 2 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. (2 hr. lecture)

RAT2243
Clinical Oncology & Neoplasms 2 credits

A continuation of medical oncology and pathology 1. Corequisites: RAT 1021, 1614, 1814L. (2 hr. lecture)

RAT2618
Radiation Therapy Physics 2 2 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. (2 hr. lecture)

RAT2690
Integration of Radiation Therapy Concepts 2 credits

This course integrates anatomy, clinical oncology and neoplasms, radiation physics, radiation biology, and radiation protection as they relate to the treatment planning process. Basic concepts used to develop the treatment plan for patients with particular needs will be discussed. Prerequisite: RAT2022; Corequisites: RAT 1619, 2690. (2 hr. lecture)

RAT2834L
Clinic 4 6 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. (18 hr. clinic)

Radiologic Technology

RTE1000
Orientation to the Imaging Sciences 2 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. (2 hr. lecture)

RTE1001
Orientation to Radiographic Clinic 1 credit

This course is designed to introduce the student to the radiology department as well as the hospital environment. Students will be provided the opportunity to observe all facets of the department, as well as participate at a minimal level in the various areas by rotating through a hospital radiology department. (3 clinical hrs. per week)

RTE1418 Radiographic Technology 1 3 credits

Introduction to radiographic imaging including the relation of technical factors and accessories. The chemistry of manual and automatic film processing is included. Prerequisites: RTE 1503, 1503L, 1804. (3 hr. lecture)

RTE1503
Radiographic Positioning 1 3 credits

Basic routine positioning of the chest, abdomen, upper and lower extremities, digestive and urinary systems. Prerequisites: RTE 1000, 1418, 1503L, 1804. (3 hr. lecture)

RTE1503L
Radiographic Positioning Laboratory 1 1 credit

Laboratory for RTE 1503. Corequisite: RTE 1503. Laboratory fee. (2 hr. lab)

RTE1513
Radiographic Positioning 2 3 credits

Positioning of the bony pelvis, shoulder girdle, bony thorax, spinal column, skull and facial bones. Prerequisites: RTE 1418, 1503, 1503L, 1804; Corequisites: RTE 1513L, 1613, 1814. (3 hr. lecture)

RTE1513L
Radiographic Positioning Laboratory 2 1 credit

Laboratory for RTE 1513. Corequisite: RTE 1513. Laboratory fee. (2 hr. lab)

RTE1613
Radiologic Physics 2 credits

Basic principles of physics involving x-radiation equipment, production and control. Prerequisite: RTE 1000. (2 hr. lecture)

RTE1804
Radiographic Clinic 1 5 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. Corequisites: RTE 1418, 1503, 1503L. (15 hr. clinic)

RTE1814
Radiographic Clinic 2 5 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 1804; Corequisites: RTE 1513, 1513L, 1613. (15 hr. clinic)

RTE1824
Radiographic Clinic 3 5 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. (24 hr. clinic)

RTE2010
New Imaging Modalities in Radiology 1 credit

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. Prerequisites: RTE 1418, 1613, 2457; Corequisite: RTE2854. (1 hr. lecture)

RTE2385
Radiation Biology 2 credits

The biologic effects of the interaction of ionizing radiation with living matter. Prerequisite: RTE1000; 2834. (2 hr. lab)

RTE2457
Radiologic Technology 2 3 credits

A more in-depth study of radiographic exposure factors as they relate to specialized procedures and equipment. Prerequisite: RTE 1824; Corequisites: RTE 2563, 2834, 2782. (3 hr. lecture)

RTE2563
Radiographic Positioning 3 2 credits

Radiographic procedures which utilize contrast media, sterile techniques, and/or specialized equipment and accessories. Prerequisite: RTE1824; Corequisites: RTE 2457, 2782, 2834. (2 hr. lecture)

RTE2782
Radiographic Pathology 2 credits

Basic disease processes, nature and cause of disease and injury, and their related radiographic significance. Prerequisite: RTE 1824; Corequisites: RTE 2457, 2563, 2834. (2 hr. lecture)

RTE2834
Radiographic Clinic 4 5 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; Corequisites: RTE 2457, 2563, 2782. (15 hr. clinic)

RTE2844

Radiographic Clinic 5 8 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 para-nasal sinuses or facial bone studies. Prerequisite: RTE 2834. (24 hr. clinic)

RTE2854

Radiographic Clinic 6 3 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. (9 hr. clinic)

Reading

REA1125

Reading Skills Review 1-3 credits
This course is designed to help students to develop specific literal and critical reading comprehension skills which are needed in preparation for the CLAST exam. Course content will focus on prescribed instruction based on reading assessment scores. (1-3 hr. lecture)

Reading College Preparatory

REA0007

Developmental Reading I 4 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. Laboratory fee. Prerequisite: Computerized Placement Test (CPT) or the Post-secondary Education Readiness Test (PERT). (2 hr. lecture; 4 hr. lab.)

REA0017

Developmental Reading II 4 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. Laboratory fee. Prerequisite: Computerized Placement Test (CPT) or the Postsecondary Education Readiness Test (PERT). (2 hr. lecture; 4 hr. lab.)

Reading Education

RED3009

Early and Emergent Literacy 3 credits
This writing intensive course is designed to familiarize students with early literacy development and conditions promoting total literacy from birth through lower elementary grades. All aspects of literacy learning are explored: reading, writing, listening and speaking. Students are familiarized with theory and current research based approaches fostering early literacy. Minimum 20 hours observation/teaching reading in educational setting(s) required. Meets the guidelines of Sunshine State Standards and the Educator accomplished practices and addresses the Council for Exceptional Children's Content Standards for All Beginning Special Education Teachers. (3 hr. lecture)

RED3013

Reading Foundations and Practices 3 credits
This methods course emphasizes the development of reading instruction from birth to secondary levels. Students will learn theory and current research-based approaches. All aspects of the reading process are explored: phonemic awareness, phonics, vocabulary, fluency and comprehension. Fifteen hours of field experience are required. Special fee. (3hr. lecture)

RED3352

Reading in the Content Areas 3 credits
This course is designed to enable pre-service teachers of subject matter content to acquire knowledge, skills and techniques necessary to guide secondary level students to be successful learners. Students will also learn and evaluate the methodology currently available for combining reading instruction with subject matter instruction. Special attention will be given to determining the relationship between the methodology and research-based principles of learning and effective teaching in the area of reading. (3 hr. lecture)

RED3393

Differentiated Instruction in Content Reading 3 credits
This methods course focuses on utilizing best practices in the instruction of efferent reading with an emphasis on differentiated instruction. Students will learn to meet the needs of diverse learners, organize the classroom, scaffold for effective instruction, and determine criteria for choosing instructional materials. Fifteen hours of field experience are required. Special fee. (3 hr. lecture)

RED4348

Literacy Development K-12 3 credits
This course provides an understanding of reading instruction through the elementary, middle school, and secondary school levels. It presents learning to read as a continuous process that impacts all academic success. Reading theories, methods, and practices

as they relate to comprehension and other aspects of the reading process are introduced. An emphasis is placed on approaches that help students with delayed reading acquisition skills. Prerequisite: RED 3009. (3 hr. lecture)

RED4519

Diagnosis and Instructional Intervention in Reading 3 credits
This methods course emphasizes the use of assessments to identify reading strengths and weaknesses. Topics include assessment of comprehension, word recognition, phonics, and cognitive strategies. Students will learn diagnosis of reading problems, administration of assessments, evaluation of results, and planning instructional interventions. Fifteen hours of field experience are required. (3hr. lecture)

Real Estate

REE2040

Real Estate Principles and Practices (P&P 1) 4 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. (4 hr. lecture)

REE2085

Post Licensure Education for Salespersons 3 credits
Is a state required course that all newly licensed salespersons must complete within two years of obtaining their first sales license. This survey course covers finance, appraising, salesmanship, property management and office management. It is the intent of the Florida Real Estate Commission that this course prepare a new licensee in a more functional and in-depth basis than does the license course. (3 hr. lecture)

REE2200

Real Estate Finance 3 credits
Methods of financing Real Estate, in fixed rate, variable rate, FHA, VA, and graduated mortgage compared from the lenders', and the borrowers' point of view. Creative financing techniques such as buy-downs and wrap-around mortgages will be discussed. (3 hr. lecture)

REE2270

Mortgage Banking and Brokerage 3 credits
Development of an understanding of the finance industry as it relates to real estate. Detailed information concerning legal aspects of mortgages, brokerage regulation, ethics and all major sources of funds for real estate financing will be covered. Prerequisite: REE 2200 (3 hr. lecture)

Religion

REL1210

Religion of the Old Testament 3 credits

The historical sources and material in the Old Testament, with emphasis on its literary and cultural importance. (3 hr. lecture)

REL1240

Religion of the New Testament 3 credits

The historical sources and material in the New Testament, with emphasis on its literary and cultural importance. (3 hr. lecture)

REL2121

Survey of Religion in the U.S. 3 credits

A survey of non-native American religions in the United States from the 17th century to the present and their impact on American culture. The course will examine four general areas: the colonial era; the religions of the frontier, the South and African-American responses to before and after the Civil War; the 19th century continuing social, political and theological tension. (3 hr. lecture)

REL2300

Survey of World Religions 3 credits

A survey of the origins, beliefs and contemporary practices of the world's religions: Hinduism, Islam, Taoism, Zen Buddhism, Judaism, Christianity and Confucianism. Attention is given to the interactions between specific religions and the cultures in which they are practiced. (3 hr. lecture)

REL2600

Jewish History and Culture 3 credits

A survey of the development of Jewish history and culture from Biblical times to the present. (3 hr. lecture)

Respiratory Therapy Technician

RET1024

Introduction to Respiratory Care

2 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; Corequisite: RET 1024L, 1484. A.S. degree credit only. (2 hr. lecture)

RET1024L

Introduction to

Respiratory Care Laboratory 1 credit

Laboratory for RET 1024. Corequisite: RET 1024. Laboratory fee. (2 hr. lab.)

RET2264

Advanced Modalities and Monitoring

2 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. A.S. degree credit only. (2 hr. lecture)

RET2350

Respiratory Care

2 credits

Pharmacology
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. (2 hr. lecture)

RET2414

Pulmonary Studies

2 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 2414. (2 hr. lecture)

RET2414L

Pulmonary Studies

Laboratory

1 credit

Laboratory for RET 2414. Simulated clinical settings of diagnostic techniques used to evaluate pulmonary functions. Laboratory fee. (2 hr. lab.)

RET2503

Respiratory Care

Pathophysiology 2

3 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. A.S. degree credit only. (2 hr. lecture)

RET2601

Respiratory Care Seminar

2-3 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. A.S. degree credit only. (2-3 hr. lecture)

RET2714

Perinatal and Pediatric

Respiratory Care

2 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. A.S. degree credit only. (2 hr. lecture)

RET2714L

Perinatal & Pediatric

Respiratory Care Laboratory 1 credit

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. A.S. degree credit only. (2 hr. lab.)

RET2832

Respiratory Care Clinic 1

2 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. A.S. degree credit only. (6 hr. clinical)

RET2833

Respiratory Care Clinic 2

5 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. (15 hr. clinic)

RET2834

Respiratory Care Clinic 3

8 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. A.S. degree credit only. (24 hr. clinic)

Respiratory Therapy Technology

RET1484

Respiratory Care

Pathophysiology 1

2 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. A.S. degree credit only. (2 hr. lecture)

RET2274

Respiratory Care Theory 1

2 credits

Theory of supplemental oxygen and humidity in respiratory pathology. Special emphasis is given to the medical, surgical, and pediatric patients and their cardiopulmonary physiology as it relates to therapeutic oxygen techniques. Corequisites: RET 1024, 1484, 2274L. (2 hr. lecture)

RET2274L**Respiratory Care Theory****Laboratory 1 1 credit**

Laboratory for RET 2274. Corequisite: RET 2274. Laboratory fee. (2 hr. lab.)

RET2275**Respiratory Care Theory 2 2 credits**

Emphasis on pressure breathing modalities, chest physiotherapy, and incentive devices. Prerequisite: RET 2274; Corequisite: RET 2275L. (2 hr. lecture)

RET2275L**Respiratory Care Theory****Laboratory 2 1 credit**

Laboratory for RET 2275. Corequisite: RET 2275. Laboratory fee. (2 hr. lab.)

RET2284**Principles of Mechanical****Ventilation 2 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. A.S. degree credit only. Prerequisites: RET 2275, 2275L; Corequisite: RET 2284L. (2 hr. lecture)

RET2284L**Principles of Mechanical****Ventilation Laboratory 2 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. Laboratory fee. A.S. degree credit only. (4 hr. lab.)

RET2835**Respiratory Care Clinic 4 8 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. A.S. degree credit only. Prerequisite: RET 2834; Corequisite: RET 2601. (24 hr. clinic)

Russian Language

RUS1120**Elementary Russian 1 4 credits**

An integrated (multi-media) approach to acquire proficiency in the basic skills (of the language) - listening/understanding, speaking, reading, writing, and cross-cultural awareness. Emphasis on practical vocabulary and accurate pronunciation. Practice in class and laboratory in understanding and using the spoken language; reading and writing with progressive grammatical explanations. (4 hr. lecture)

RUS1121**Elementary Russian 2 4 credits**

A continuation of RUS 1120. A proficiency-oriented course emphasizing the mastery of the basic skills of the language. Prerequisite: RUS 1120. (4 hr. lecture)

Social Science

ISS1120**The Social Environment 3 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. (3 hr. lecture)

ISS1161**The Individual in Society 3 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. (3hr. lecture)

ISS1935**Social Science Seminar 1-3 credits**

Small group and individual work, to analyze in greater depth issues arising out of the interdisciplinary approach to the study of social environment and social economic change; it is designed for those students who are engaged in or have completed ISS 1120. (1-3 hr. seminar)

Social Work

SOW2054**Social Service Field****Experience 1 1-3 credits**

Directed field work with selected community service agencies involving direct student-client relationships with continuous in-service training and supervision. The student is expected to log a total of 40-120 hours.

SOW2055**Social Service Field****Experience 2 3 credits**

A continuation of SOW 2054 for the student desiring a more extensive experience. Prerequisite: SOW 2054. (Variable hours).

Sociology

SYG2000**Introduction to Sociology 3 credits**

This course engages in a scientific study of society providing an overview of sociology as a social science. It includes its development as a discipline and methodology. It examines culture as a basis for human behavior, how it is acquired and its norms obeyed. It explores the issues of social inequality within society, including the issues of ethnicity and gender. The issues of social change and social institutions are examined, along with those of demography and urbanization, together with the great challenges these currently pose to the modern world. (3 hr. lecture)

SYG2010**Social Problems 3 credits**

An analysis of the major contemporary and recurring social problems, emphasizing scientific search for variables involved and exploring alternative solutions. (3 hr. lecture)

SYG2230**Multi-Ethnic America 3 credits**

An introduction to the theory and problems of minority groups in American society. The focus is on structural inequality, institutional discrimination, and the changing patterns of prejudice and discrimination. (3 hr. lecture)

SYG2430**Marriage and the Family 3 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. (3 hr. lecture)

Sonography

SON1000L**Introduction to Sonography 1 1 credit**

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. (2 hr. lab.)

SON1001L**Introduction to Sonography 2 1 credit**

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; (2 hr. lab.)

SON1005L**Basic Sonography 2 credits**

This course is designed to cover the essential of the profession of Diagnostic Medical Sonography. Topics include: professionalism, medical ethics, hospital administration, sonographic terminology, quality assurance, photographic principles, related radiological specialties and scanning techniques. Laboratory experience will include equipment use and quality assurance techniques. Prerequisite: SON 1000L. Laboratory fee. (4 hr. lab.)

SON1006L**Professional Aspects of Sonography 1 credit**

An introduction to the professional aspects of Sonography. Topics include: medical ethics and law, hospital administration, quality assurance/quality control and management. Laboratory experience includes actual phantom scanning conducting equipment protocols, and participation on a mock ethics board. (2 hr. lab.)

SON1100L**Principles of Protocols of Imaging 2 credits**

An introduction to radiographic film, its handling & processing and the various radiographic specialties. Laboratory experience includes: film composition and identification, rapid processing, photographic techniques, reading H&D curves, performing sensitometry and identifying film artifacts. During radiographic specialties, there will be an introduction to CT, MRI, and the areas of radiologic technology in order to discover how these modalities compliment Sonography. (4 hr. lab.)

SON1111C**Abdominal Sonography 1 2 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 1000L. (1 hr. lecture; 2 hr. lab.)

SON1112C**Abdominal Sonography 2 2 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. Laboratory fee. (1 hr. lecture; 2 hr. lab.)

SON1113L**Sonography Cross Sectional Anatomy 2 credits**

A thorough course aimed at teaching the student to understand anatomical relationships

and recognize structures on cross-sectional and sagittal diagrams, photographs of gross anatomy and sonography. The laboratory conducted in conjunction with the classroom lectures is designed to identify all normal anatomical landmarks in multiple planes in actual scanning situations. (4 hr. lab.)

SON1115L**Duplex Abdominal Sonography 1 credit**

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. (2 hr. lab.)

SON1121C**Obstetrics/Gynecology Sonography 1 2 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), indications for ultrasonic studies, clinical presentation, clinical data, pathophysiological basis of disease, ultrasonic manifestations of diseases, recognition of adequate images and scanning pitfalls. Corequisite: SON 1000L. (1 hr. lecture; 2 hr. lab.)

SON1122C**Obstetrics/Gynecology Sonography 2 2 credits**

An in-depth course designed to cover all aspects of clinical OB/GYN ultrasound studies. Subject matter includes: review of normal anatomy (ultrasound appearance), indications for ultrasonic studies, clinical presentation, clinical data, pathophysiological basis of disease, ultrasonic manifestations of diseases, recognition of adequate images and scanning pitfalls. Prerequisite: SON 1121C. (1 hr. lecture; 2 hr. lab.)

SON1141C**Small Parts Sonography 2 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 1112C. (1 hr. lecture; 2 hr. lab.)

SON1145L**Pediatric Sonography 1 credit**

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. (2 hr. lab.)

SON1804**Clinic 1 2 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. (16 hr. clinic)

SON1814**Clinic 2 2 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. (8 hr. clinic)

SON1824**Clinic 3 3 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. (24 hr. clinic)

SON2139L**Cardiovascular Principles 1 credit**

An introductory course to techniques other than echocardiography utilized in the diagnosis of cardiovascular disease. Topics discussed include physical examination, electrocardiogram, phonocardiogram, cardiac catheterization and nuclear medicine cardiology. Prerequisite: SON 2400C; Corequisite: SON 2401C. (2 hr. lab.)

SON2161C**Neurosonography 2 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. Special fee. (1 hr. lecture; 2 hr. lab.)

SON2171C**Vascular Sonography 2 credits**

This course is designed to cover aspects of Clinical Vascular Technology. Topics include the pathophysiological levels of disease, clinical presentation and data, hemodynamic of blood flow, anatomy and physiology of the vascular system and anatomical appearance. Prerequisite: SON 2161C. (1 hr. lecture; 2 hr. lab.)

SON2400C**Echocardiography 1 2 credits**

An in-depth course designed to present 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. Prerequisite: SON 1000L. (1 hr. lecture; 2 hr. lab.)

SON2401C**Echocardiography 2 2 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. Prerequisite: SON 2400C. (1 hr. lecture; 2 hr. lab.)

SON2614C**Acoustical Physics and Instrumentation 1 2 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. (1 hr. lecture; 2 hr. lab.)

SON2618C**Acoustical Physics and Instrumentation 2 2 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. (1 hr. lecture; 2 hr. lab.)

SON2619C**Doppler Principles and Instrumentation 2 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. Laboratory fee. (1 hr. lecture; 2 hr. lab.)

SON2834**Clinic 4 2 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. (16 hr. clinic)

SON2844**Clinic 5 3 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. (24 hr. clinic)

SON2854**Clinic 6 3 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. (24 hr. clinic)

SON2910L**Directed Research 1 credit**

This course is designed to afford students an opportunity to develop their research skills, broaden their educational horizons, and further investigate a particular area of interest in the field of ultrasound. Students will select a topic for research, investigate and gather information, and compile the results for presentation, competition and publication. (2 hr. lab.)

SON2930L**Seminar in Sonography 1 credit**

Students will participate in the various types of continuing education. This may include: society meetings, seminars, conferences and in-services. (2 hr. lab.)

SON2931L**Film Critique 1 1 credit**

An extensive laboratory to prepare 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 class includes all technical and clinical information as well as interpretation by the supervising physician. Prerequisite: SON 1000L. Laboratory fee. (2 hr. lab.)

SON2932L**Film Critique 2 1 credit**

An extensive laboratory to prepare 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 class includes all technical and clinical information as well as interpretation by the supervising physician. Prerequisite: SON 2931L. Laboratory fee. (2 hr. lab.)

SON2933L**Film Critique 3 1 credit**

An extensive laboratory to prepare 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 class includes all technical and clinical information as well as interpretation by the supervising physician. Prerequisite: SON 2932L; Corequisite: SON 2401C. (2 hr. lab.)

SON2934L**Film Critique 4 1 credit**

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 2933L. Laboratory fee. (2 hr. lab.)

SON2935L**Film Critique 5 1 credit**

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. Laboratory fee. (2 hr. lab.)

SON2950L**Journal Review 1 credit**

Students select scientific articles from sonography journals for review and presentation in class. (2 hr. lab.)

Spanish Language & Literature

SPN1030**Spanish for Health Professionals 1 4 credits**

Conversational Spanish for students in the Allied Health programs only. Emphasis is on the practical application of Spanish to situations relative to patients and personnel. A.S. degree credit only. (3-4 hr. lecture)

SPN1120**Elementary Spanish 1 4 credits**

An integrated (multi-media) approach to acquire proficiency in the basic skills (of the language) – listening/understanding, speaking, reading, writing, and cross-cultural awareness. Emphasis on practical vocabulary and accurate pronunciation. Practice in class and laboratory in understanding and using the spoken language; reading and writing with progressive grammatical explanations. (4 hr. lecture)

SPN1121**Elementary Spanish 2 4 credits**

A continuation of SPN 1120. A proficiency-oriented course emphasizing the mastery of the basic skills of the language. Prerequisite: SPN 1120. (4 hr. lecture)

SPN1170**Spain Travel Study 3 - 6.00 credits**

A course designed for students who wish to combine the study of Spanish with subsequent travel to a Spanish-speaking country. Prerequisites: SPN 1000, 1120 or permission of instructor. Offered through overseas study program. (3 hr. lecture)

SPN2220

Intermediate Spanish 1 4 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. (4 credit lecture)

SPN2221

Intermediate Spanish 2 4 credits
Understanding, speaking, reading, writing and cross-cultural awareness, through a systematic review of reading and writing skills with emphasis on oral as well as written expression. (3 hr. lecture)

SPN2240

**Intermediate Spanish 1
Conversation & Composition** 3 credits
Promotes facility in understanding, speaking and writing the language. Emphasis on everyday conversation. Prerequisite: SPN 2201 or equivalent. (3 hr. lecture)

SPN2241

**Intermediate Spanish 2
Conversation & Composition** 3 credits
Oral practice with idiomatic expressions; oral reports on collateral readings; class discussions. Prerequisite: SPN 2240 or equivalent. (3 hr. lecture)

SPN2340

Spanish for Native Speakers 1 3 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. (3 hr. lecture)

SPN2341

Spanish for Native Speakers 2 3 credits
A continuation of SPN 2340. Prerequisite: SPN 2340 or equivalent. (3 hr. lecture)

SPT2842

**Contrastive Analysis
Spanish/English** 3 credits
Comparison/contrastive study of the phonology, morphology and syntax of Spanish and English. Recommended for students of translation and interpretation. Prerequisite: SPN 1121 or equivalent. (3 hr. lecture)

SPW2010

**Selected Readings
in Spanish Literature** 3 credits
A study of outstanding works, authors, genres, or major literary currents in Spain. (3 hr. lecture)

SPW2020

**Selected Readings
in Latin American Literature** 3 credits
A study of outstanding works, authors, genres, or major literary currents in Latin America. (3 hr. lecture)

Speech Communication

SPC1017

**Fundamentals of
Speech Communication** 3 credits
This course provides students with the oral communications skills necessary for success in personal, professional and educational settings. Students will learn through the study and experiential practice of interpersonal communication, presentational speaking and group dynamics of communication and be able to use them effectively. Gordon Rule assigned. Special fee. (3 hr. lecture)

SPC2050

Voice and Diction 3 credits
Effective voice production and articulation, acceptable pronunciation, intonation, rhythm, and phrasing, a consideration of elementary vocal anatomy and the fundamentals of the science of sound. Specific speech problems will be handled on an individual basis. (3 hr. lecture)

SPC2511

Argumentation and Debate 3 credits
The principles of argumentation, including analysis, evidence, inference and refutation, and their application to issues of current public interest. The course provides opportunities for debating practice. Prerequisite: SPC 2608 or equivalent. (3 hr. lecture)

SPC2594

Forensic Laboratory 1-3 credits
Advanced techniques of debate and other forensics, keyed primarily to those interested in intercollegiate forensic competition. Prerequisite: Permission of the instructor. May be repeated for credit. (2-6 hr. lab.)

SPC2601

Advanced Public Speaking 3 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. (3 hr. lecture)

SPC2608

**Introduction to
Public Speaking** 3 credits
Students will learn the basic skills of speaking and listening through classroom exercise, group discussions and public address. Special emphasis is given to the principles of logical organization. Special fee. (3 hr. lecture)

SPC2940

**Peer Teaching in Speech
Communication** 3 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. (3 hr. lecture)

Statistics

STA2023

Statistical Methods 3 credits
This course will introduce students to statistical methods. Students will learn topics to include collecting, grouping and presenting; measures of central tendency and dispersion; probability; testing hypotheses; confidence intervals; and correlation. Prerequisite: MAT 1033. Special fee. Gordon Rule Assigned (3 hr. lecture)

STA3164

Statistical Methods 2 3 credits
Topics include tests of variance, analysis of variance, analysis of covariance, regression, correlation, and non-parametric statistics. Prerequisites: MAC 2312 or STA 2023 (3 hr. lecture)

Student Life Skills

SLS1125

Student Support Seminar 3 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. (3 hr. lecture)

SLS1130

College Survival Seminar 1 credit
An introduction to the campus, college policies, student services and self-discovery for entering freshmen. (1 hr. lecture)

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." Special fee. (1-6 hr. lecture).

SLS1502

College Study Skills 1.00 - 3 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. (1-3 hr. lecture)

SLS1505

College Survival Skills 1 credit
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 proce-

dures, effective study strategies, and making sound academic and career choices. (1 hr. lecture)

SLS1510

Preparing for Student Success 3 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. (3 hr. lecture)

Surveying

SUR1001C

Construction Survey 3 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. Special fee. (2 hr. lecture; 2 hr. lab.)

SUR1101C

Surveying 1 4 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. Prerequisite: EGS 1111C, ETD 1200. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

SUR1202C

Surveying 2 4 credits

Advanced study in route, land, and mapping surveying to include triangulation, astronomic observations, topographic and photogrammetric mapping. Field demonstrations and surveys performed with many modern types of survey instruments. Prerequisite: SUR 1101C. Laboratory fee. (2 hr. lecture; 4 hr. lab.)

Teaching English as a Second Language

TSL3240

Applied Linguistics 3 credits

This course provides an introduction to the analysis and classroom application of Linguistic theories in the field of second language acquisition for LEP (Limited English Proficient) students. Required for Florida Add-On ESOL Endorsement. (3 hr. lecture)

TSL3331

ESOL: Language Principles and Acquisition 3 credits

This course provides an introduction to the analysis and classroom application of

Linguistic theories for first and second language acquisition and literacy development as well as the study of language and its structure. Students will examine and apply this knowledge to enhance instruction for culturally and linguistically diverse learners. Prerequisite EDG 3321. (3 hr. lecture)

TSL3520

ESOL II: Communication and Culture 3 credits

This course provides an overview of topics related to the field of cross cultural studies and implications for instruction. The students will learn to plan and implement curriculum, instruction, and assessment activities to meet the needs of culturally and linguistically diverse learners. Fifteen hours of field experience required. (3hr. lecture)

TSL3520C

Cultural Dimensions of ESOL 3 credits

This course provides an overview of topics related to cross-cultural communication by introducing students to the cultures of different U.S. language groups with a focus on language groups found in Florida. Students develop an awareness and understanding of the complexities surrounding language, culture, and learning in order to meet the needs of linguistically and culturally diverse learners. Required for Florida Add-On-ESOL Endorsement. (3 hr. lecture)

TSL4140C

TESOL Curriculum and Materials 3 credits

This course provides knowledge and application of TESOL theories, principles, and current research in the analysis, planning, design and evaluation of curriculum and materials appropriate for LEP (Limited English Proficient) students. Required for Florida Add-on ESOL Endorsement. (3 hr. lecture)

TSL4324C

ESOL Strategies for Content Area Teachers 3 credits

This course provides students taking education courses in content areas with strategies for analyzing, applying and adapting ESOL methods, curriculum, and assessment to enhance instruction for linguistically and culturally diverse students. Fulfills META requirements for content-area teachers with LEP (Limited-English Proficient) students - except primary language arts and ESE instructors. Minimum 20 hours of structured field experience required. (3 hr. lecture)

TSL4340C

TESOL Methods 3 credits

This course provides knowledge and application of TESOL theories, principles, and current research in the understanding and use of instructional techniques and methodologies appropriate for teaching LEP (Limited English Proficient) students. Minimum 20 hours of structured field experience required. Required for Florida Add-On ESOL Endorsement. (3 hr. lecture)

TSL4347

ESOL III: Methods of Teaching ESOL Students 3 credits

This course focuses on the application of TESOL instructional methods and strategies as well as the analysis, planning, design, and evaluating of curriculum and materials. Students will learn to select, develop, and adapt assessment instruments. Standardized ESOL assessment instruments will be examined. Fifteen hours of field experience are required. (3 hr. lecture)

TSL4441C

ESOL Testing and Evaluation 3 credits

This course provides knowledge and application of TESOL theories, principles, and current research in the selection, development, and adaptation of assessment instruments/evaluation materials appropriate for LEP (Limited English Proficient) students, including study of standardized ESOL instruments. Minimum 20 structured hours of field experience required. Required for Florida Add-On Endorsement ESOL Endorsement. (3 hr. lecture)

Theater Arts

THE1925

Studio Theatre Production 3 credits

Theoretical and practical experience with all aspects of studio theatre production including design, directing, lighting, technical and casting. The course will include faculty supervised public performances. May be repeated for credit. Prerequisite: Permission of department chairperson. (3 hr. lecture)

THE2000

Theatre Appreciation 3 credits

The development of drama from its beginning to contemporary theatre. Included are the analyses and study of major plays exemplary of outstanding periods of theatre history. Required of drama and drama education majors. Gordon Rule Assigned. (3 hr. lecture)

THE2051

Children's Theatre Production 3 credits

The theory of children's theatre, its development with the American theatrical scene, its function within the American community and applications of the theories in actual productions before audiences. (3 hr. lecture)

THE2052

Children's Theatre Workshop 3 credits

Application of the theories of children's theatre and utilization of the associated arts and skills of directing, stage design, lighting, costume design and theatre management in actual production of children's plays. Prerequisite: THE 2051 or TPA 1200, 1220 or equivalent. (3 hr. lecture)

THE2083**Theatre Problems 1-3 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. (1-3 hr. lecture)

TPA1200**Stagecraft 3 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. (2 hr. lecture; 2 hr. lab.)

TPA1202**Introduction to Entertainment Technology 3 credits**

An historical overview of the scope, current trends, methods and vocabulary connected with the variety of venues used for live entertainment (arenas, stadiums, discos, theater-auditorium, convention centers, casinos, recorded entertainment at film and video sound stages and music studios); the producing organizations of entertainment and their different styles of production management (sports, music film, video, dance, theater, theme parks); and the business aspects of equipment vendors and leasing companies. An overview of theatrical unions, engineering and professional groups and their influence on standard practices will also be addressed. (3 hr. lecture)

TPA1215**Audio-Visual, Multi-Media 4 credits**

This course presents the principles and practice of unpacking, unloading, setting up and operating visual aids for conference and convention, and A/V for industrial shows, conventions, concerts and special events. Also covered is media using recorded sound (A/V) and media accompanying live presenters (V/A) including 8, 16, 35 and 70 mm movie, single and multi-media. Students will practice this technology in labs and in performance environment, under performance conditions. Prerequisite: Permission of department. (2 hr. lecture; 4 hr. lab.)

TPA1220**Lighting 3 credits**

Technical theatre practices with emphasis on lighting, sound effects and design concepts. (2 hr. lecture; 2 hr. lab.)

TPA1225**Automation and Computers 3 credits**

This course presents the principles and practices of automated robotics lighting (intelligent lighting), automated machinery, rigging, wagons, turntables, lifts, event sequencing between pyro, multi-media, sound and stage

lights, automated show control of up to ninety-nine elements of production and computerize control of light and sound. Prerequisite: Permission of department. (2 hr. lecture; 2 hr. lab.)

TPA1230**Theatre Costuming 3 credits**

An introduction to three basic areas of concentration in costuming history of dress, design concepts, and building techniques. (2 hr. lecture; 2 hr. lab.)

TPA1248**Makeup for the Stage 3 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. (3 hr. lecture)

TPA1253**Entertainment Technology: Technician 1 3 credits**

This course presents the principles and practice of stage rigging, stage carpentry, road crew and gripping. Students will practice the use of hardware, knots, hemp, counter-weight and motorized flying system for scenery, curtains and ground rigging, temporary and permanent stages, sound stages or on location, expositions and/or special outdoor events. Also covered are the principles and practices of the installation and operation of wagons, winches, chain hoists and trusses, lighting equipment, sound for on-stage or studio performance, gripping for motion pictures or video production. Occupational health and safety issues are discussed and practiced. (2 hr. lecture; 2 hr. lab.)

TPA1254**Entertainment Technology: Technician 2 3 credits**

This course is an advanced course in entertainment technology and continuation of the principles and practices covered in Entertainment Technology Technician 1. (2 hr. lecture; 2 hr. lab.)

TPA1255**Concert and Stage Lighting 4 credits**

This course presents the principles and practices of installation and operation of lighting technology for a variety of entertainment venues: theater, dance, opera, rock and roll concert tours philharmonic orchestras, music festivals, industrial shows, theme parks. Special attention will be paid to venues for performances outdoors, indoors and on sound stages. Also covered are the principles and practices involved with the installation and operation of film studio, location gaffing and equipment technology. AC and DC electrical current will be studied as it applies to lighting technology with special emphasis on power supplies, cabling electricians, and basic maintenance of generic equipment as currently used in the field. Occupational health and safety, fire safety and CPR are discussed and practiced. Prerequisite: Permission of department. (2 hr. lecture; 4 hr. lab.)

TPA1260**Concert and Stage Sound 4 credits**

This course presents the principles and practices of the installation and strike of sound technology for a variety of entertainment venues: theater, dance and opera, rock and roll concert tours, orchestras, choirs and music festivals, theme parks, themed entertainment and industrial shows, special events, casino and cruise line shows. Special attention is paid to venues for performances outdoors, indoors and on sound stages. Also covered are the principles and practices associated with the installation and operation of film studio, location sound and sound studio set-up technology. Emphasis is placed on equipment and its specific use in the field together with practice in cabling, patching, system layout rigging and basic maintenance of generic equipment. Occupational health safety, fire safety issues and CPR are discussed and practiced. Prerequisite: Permission of department. (2 hr. lecture; 4 hr. lab.)

TPA1274**Properties Practical's Non-Electrified Special Effects 3 credits**

This course provides the student: the principles and practice of unloading, installing, pre-setting operating, striking, storing, loading and packing properties, practical's, physical effects and set dressing; the preparation, care and handling and clean-up of food used during a live performance and filming; the preparation, pre-set/strike, organization and storage of properties before, during and after performance and film shots. Students learn how to take instructions from management, designers and decorators for the installation and running for furniture, dressing and effects and executing cues for their movement and operation. Prerequisite: Permission of department. (2 hr. lecture; 2 hr. lab.)

TPA1275**Special Effects-Electrified Laser and Pyrotechnics 3 credits**

This course presents the principles and practice of operating scenic, mechanical, sound, and lighting special effects including laser light and pyro-technics. Also covered are the standard practices, rules, regulations, procedures, guidelines and precautions for the safe operation of currently available devices used in industry today and those invented or special events. Prerequisite: Permission of department. (2 hr. lecture; 2 hr. lab.)

TPA2233**Mainstage Production-Costumes & Makeup 1 credit**

Practical experience in theatrical costuming and makeup through participation in a major theatrical production. May be repeated for credit. Prerequisite: Permission of department chairperson. (2 hr. lab.)

TPA2256**Costumes and Makeup 3 credits**

This course presents the principles and practices of unloading, receiving, unpacking and distributing costumes, wigs and accessories

for live performances and the load-out duties of collecting and packing the same, and the equivalent duties for on-location trailers and/or studio wardrobe. Perform costume changes as well as other reshoot and post production set-ups and strikes. Perform maintenance duties including laundry, repair, dyeing, starching, spot cleaning, ironing, pressing, steaming, shoe repair and painting, gluing, hand and machine sewing, embroidery, millinery pattern making, tailoring/alterations, leather work, beading and other costume crafts. The principles of make-up for the stage, studio and screen and preparation and maintenance of wigs, falls and other hair pieces including beards and mustaches is also practiced. Taking instructions from management, designers, and supervisors, executing clues, collaborating with others part of a crew has equal emphasis along with occupational health, safety, fire safety and CPR principles and practices. (3 hr. lecture)

TPA2276

Entertainment Technology:

Crafts 1 3 credits

This course presents the principles and practices of woodworking, welding, smithing, casting, weaving, paperhanging, painting, ceramics, plaster sewing and plastics technology for the entertainment industry. State of the art tool technology, shop and field practice, health and safety standards will be emphasized. These crafts are entertainment industry oriented with a perspective that states that objects created are to be used for production. Prerequisite: Permission of department. (2 hr. lecture; 2 hr. lab.)

TPA2277

Crafts 2 3 credits

This course is a continuation of the study of the principles and practices covered in Crafts 1. Prerequisite: TPA 2276 or departmental permission. (2hr. lecture; 2 hr. lab.)

TPA2291

Mainstage Production-Technical & Lighting

1 credit

Practical application of theatrical skills in technical support, and lighting through participation in a major theatrical production. May be repeated for credit. Prerequisite: Permission of department chairperson. (2 hr. lab.)

TPA2292

Production Lab 1-3 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. (2-6 hr. lab.)

TPA2600

Introduction to

Stage Management 3 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. (3 hr. lecture)

TPP1100

Acting 1 3 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. (3 hr. lecture)

TPP1110

Acting 1 3 credits

Continuation of TPP 1100. Prerequisite: TPP 1100. (3 hr. lecture)

TPP1120

Improvisation Ensemble 3 credits

The student will develop the skills of improvisation for use in role development and for performance. (3 hr. lecture)

TPP1123

Improvisation Ensemble 3 credits

The student will develop ensemble and individual improvisational technique for performance. May be repeated for credit. (1 hr. lecture; 4 hr. lab.)

TPP1150

Scene Study 1 3 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. (1-3 hr. lecture)

TPP1160

Voice and Movement 1 3 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. (3 hr. lecture)

TPP1161

Voice and Movement 1 3 credits

Continuation of TPP 1160. Prerequisite: TPP 1160. (3 hr. lecture)

TPP1170

Beginning Characterization 3 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. (3 hr. lecture)

TPP1172

Advanced Characterization 3 credits

A course which builds upon the centered foundation of creating a role developed in TPP 1100 and TPP1110 and TPP 1170. The student continues to refine a subjective approach to creating a character which differs from him/her physically, culturally and psychologically. He/she attempts ever greater degrees of transformation with internal and external sensitivity. Prerequisite: TPP 1170. (3 hr. lecture)

TPP1190

Studio Theatre-Cast 1 credit

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. (2 hr. lab.)

TPP1250

Musical Theatre 1 3 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. (1 hr. lecture; 2-4 hr. lab.)

TPP1606

Playwriting 1/2 3 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. (3 hr. lecture)

TPP1700

Voice for the Stage 3 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. (3 hr. lecture)

TPP2111

Acting 2 3 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. (3 hr. lecture)

TPP2112

Acting 2 3 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. (3 hr. lecture)

TPP2151

Advanced Scene Study 3 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. (3 hr. lecture)

TPP2152

Scene Study 3 3 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. (3 hr. lecture)

TPP2162

Voice and Movement 2 3 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, non-conscious application of acquired voice and movement skills. Prerequisite: TPP 1161. (3 hr. lecture)

TPP2163

Voice and Movement 2 3 credits
Continuation of TPP 2162. Prerequisite: TPP 2162. (3 hr. lecture)

TPP2191

Mainstage Production - Cast 1-3 credits
Participation in a major theatrical production as a member of the cast. Mainstage productions will be presented publicly to the student body and community. May be repeated for credit. Prerequisite: Permission of department chairperson. (2-6 hr. lab.)

TPP2256

Musical Theatre 2 3 credits
A continuation of TPP 1250 in which the student is expected to develop further the performing skills of singing, dancing and acting. (3 hr. lecture)

TPP2260

Acting for the Camera 1 3 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. (2 hr. lecture; 2 hr. lab.)

TPP2261

Acting for the Camera 2 3 credits
Advanced acting students will continue to develop skills in performance technique for the lens. A lecture/lab course which is designed to give actors practical experiences necessary to make informed choices in use of self-vocal levels and character business. Prerequisite: TPP 2260 or permission of instructor. (2 hr. lecture; 2 hr. lab.)

TPP2300

Introduction to Play Directing 3 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. (3 hr. lecture)

TPP2303L

Mainstage Production-Assistant Designer/Director 1 credit
Practical experience in theatrical design and directing through participating in a major production. May be repeated for credit. Prerequisite: Permission of department chairperson. (2 hr. lab.)

Travel Industry Management

HFT1454

Food and Beverage Cost Controls 3 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. (3 hr. lecture)

HFT1949

Co-op Work-Study Internships I 3 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 credit only. A.S. degree only. (3 hr. lecture)

HFT2949

Co-op Work-study Internships 2 3 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. (3 hr. lecture)

Vision Care Technology/ Opticianry

OPT1110

Physical & Geometrical Optics 4 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. Corequisites: OPT 1205, 1330. (4 hr. lecture)

OPT1150

Ophthalmic Lenses 2 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; Corequisites: OPT 1331, 1331L. (2 hr. lecture)

OPT1205

Ocular anatomy, Physiology & Pathophysiology 3 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. (3 hr. lecture)

OPT1330

Clinical Data Collection 1 2 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. (2 hr. lecture)

OPT1331

Clinical Data Collection 2 2 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 1150, 1331L. (2 hr. lecture)

OPT1331L

Clinical Data Collection 2 Laboratory 1 credit
Laboratory for OPT1331 in which students are under the supervision of a licensed practitioner. Corequisite: OPT 1331. Laboratory fee. (2 hr. lab.)

OPT1450

Ophthalmic Dispensing Procedures 1 1 credit
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 1330; Corequisites: OPT 1331, 1331L, 1450L. (1 hr. lecture)

OPT1450L

Ophthalmic Dispensing Procedures 1 Laboratory 1 credit
Laboratory for OPT 1450. Corequisite: OPT 1450. Laboratory fee. (2 hr. lab.)

OPT2060

Ophthalmic Management Policy & Procedures 2 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 1330, 2800L. (2 hr. lecture)

OPT2070L

Computers for Vision Care 1 credit
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. (2 hr. lab.)

OPT2375

Refractometry 1 credit
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. (1 hr. lecture)

OPT2375L

Refractometry Laboratory 1 1 credit
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. (2 hr. lab.)

OPT2376L

Refractometry Lab 2 1 credit
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. (2 hr. lab.)

OPT2377L

Refractometry 3 Laboratory 1 credit
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. (2 hr. lab.)

OPT2420

Eyewear Fabrication 1 2 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 1150; Corequisites: OPT 1450, 1450L, 2420L, 2505. (2 hr. lecture)

OPT2420L

Eyewear Fabrication 1 Laboratory 1 credit
Laboratory for OPT 2420. Corequisite: OPT 2420. Laboratory fee. (2 hr. lab.)

OPT2421C

Eyewear Fabrication 2 3 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. (1 hr. lecture; 4 hr. lab.)

OPT2422C

Eyewear Fabrication 3 3 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 edgers, and maintenance of equipment. Prerequisites: OPT 2420, 2421C. (1 hr. lecture; 4 hr. lab.)

OPT2451

Ophthalmic Dispensing Procedures 2 1 credit
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. (1 hr. lecture)

OPT2451L

Ophthalmic Dispensing Procedures Laboratory 1 credit
Laboratory for OPT 2451. Corequisite: OPT 2451. Laboratory fee. (2 hr. lab.)

OPT2505

Contact Lenses 1 3 credits
Basic principles of contact lens fitting, emphasizing soft lenses. Topics include lens-related terminology, anatomy and physiology, patient examination, soft lens materials, design, parameters, handling, fitting and care. Includes introduction to rigid lenses. OPT 1110, 1205. (3 hr. lecture)

OPT2506

Contact Lenses 2 2 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. (2 hr. lecture)

OPT2506L

Contact Lenses 2 Lab 1 credit
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. (2 hr. lab.)

OPT2800L

Vision Care Clinic 1 2 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 1331, 1331L, 1450, 1450L. Laboratory fee. (6 hr. lab.)

OPT2801L

Vision Care Clinic 2 4 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 2800L. Laboratory fee. (12 hr. clinic)

OPT2802L

Vision Care Clinic 3 4 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; Corequisite: OPT 2060 Laboratory fee. (12 hr. clinic)

OPT2830C**Contact Lenses Clinic 1 2 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 2506, 2506L. Laboratory fee. (4 hr. clinic)

OPT2831L**Contact Lens Clinic 2 1 credit**

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. Laboratory fee. (3 hr. clinic)

OPT2875L**Ophthalmic Dispensing Practicum 1 2 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 2420, 2420L, 2451, 2451L; Corequisite: OPT 2801L. (6 hr. lab.)

OPT2876L**Ophthalmic Dispensing Practicum 2 2 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. (6 hr. lab.)

Selected Studies

###1920**WORKSHOP****3 credits**

Designed to provide in-depth study in various occupational areas. It may be varied according to faculty and student planning. This offering is numbered 1920 or 2920, with prefix of the subject area, in the department or discipline of study. May be repeated for credit.

###2920**WORKSHOP****3 credits**

Designed to provide in-depth study in various occupational areas. It may be varied according to faculty and student planning. This offering is numbered 1920 or 2920, with prefix of the subject area, in the department or discipline of study. May be repeated for credit.

###2990**SELECTED STUDIES****3 credits**

Designed to offer an in-depth treatment of special areas under the various occupational categories; it may be varied each term according to faculty and student planning. This offering is numbered 2990, with prefix of the subject area, in the department or discipline of study. Credits apply only to an Associate in Science degree. Prerequisite: Permission of the instructor and department chairperson.

###2995**OCCUPATIONAL PRACTICUM 3 credits**

Serves the teachers in various occupational disciplines. To study practical problems of an assigned discipline or critical study or curriculum development, laboratory planning, literature, research, and practice. May be repeated for credit.



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).

Accounting

ACO0101
Accounting 1 **2.50 credits**
This course emphasizes double-entry bookkeeping; methods and principles of recording business transactions; the preparation of various documents using recording income, expenses, acquisition of assets incurrence of liabilities, and changes in equity and the preparation and basic interpretation of financial statements. Special fee. (75 contact hrs.)

ACO0102
Accounting 2 **2.50 credits**
This course is designed to continue the study of accounting principles. Topics include depreciation, inventory, accruals, deferrals, notes, payroll, and tax-related forms. Computer application will be provided. Special fee. (75 contact hrs.)

ACO0111
Accounting (Lab) Applications **1 credit**
This course is intended to provide additional time on task for students who are attempting to fulfill the requirements of the Accounting Operations Certificate Program. The course is individualized according to each student's need. Special fee. (30 contact hrs.)

ACO0202
Accounting (Lab) Applications 2 **1 credit**
This course is intended to provide additional time on task for students who are attempting to fulfill the requirements of the Accounting Operations Certificate Program. The course is individualized according to each student's need. Special fee. (30 contact hrs.)

ACO0511
Microcomputers in Bookkeeping and Business **2.50 credits**
This course is concerned with the use of microcomputers for accounting applications. It includes the preparation, interpretation, and use of microcomputer information in financial decision making. Other business applications will be explored. Special fee. (75 contact hrs.)

ACO0751
Income Tax Accounting **2.50 credits**
This course provides the student with an overview of the federal income tax system, presents the accounting procedures and rules that need to be understood to minimize the tax amount due to the government, within the tax laws. Special fee. (75 contact hrs.)

ACO0752
Business Forms **2.50 credits**
This course provides an introduction to federal, state and local forms that must be filed by most businesses, including payroll returns and sales taxes. Special fee. (75 contact hrs.)

ACO0948
Co-op Work Experience:
ACO **1-3 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 Departmental approval and completion of ACO 0948 Co-Op Work Experience. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Cooperative Educational Office to obtain registration approval. Special fee. (30-90 contact hrs.)

Apprenticeship - Electricity

BCA0350
Electricity 1 **3 credits**
This course provides students with a foundation in electrical theory, electrical safety, OSHA standards, and mathematical principles and formulas for the electrical industry. (90 contact hrs.)

BCA0351
Electricity 2 **3 credits**
This course presents the National Electrical Code (NEC) and its application to electrical wiring. Students are also introduced to various types of test equipment, fittings, conductors, blueprints, and residential and commercial wiring. (90 contact hrs.)

BCA0352
Electricity 3 **3 credits**
Circuits, current, and motor theory and application are presented in this course. The student also learns about grounding, conduit systems, and conductor installations. (90 contact hrs.)

BCA0353
Electricity 4 **3 credits**
This course presents techniques for cable tray assembly and installation, crimping and splicing cable, and installation of various types of electrical services. Students also learn about circuit breakers and fuses, contactors and relays, as well as lighting and lighting fixtures. (90 contact hrs.)

BCA0354
Electricity 5 **3 credits**
This course focuses on calculating loads and conductors. It also presents information on requirements for overcurrent protection, outlet and junction boxes, and wiring devices. (90 contact hrs.)

BCA0355
Electricity 6 **3 credits**
Students are provided with information on transformer operations and principles of light. Motor calculations, maintenance, and controls are also presented. (90 contact hrs.)

BCA0356
Electricity 7 **3 credits**
This course provides skills in calculating loads and circuits for various types of electrical systems. It offers the first part in a two-part series on motor maintenance. It also presents information on basic electronic theory, standby and emergency systems, fire alarm systems, and specialty transformers. (90 contact hrs.)

BCA0357
Electricity 8 **3 credits**
This is the second part of a two-part series on motor maintenance. It also presents the topics of advanced controls, and heating, ventilation, and air conditioning controls. (90 contact hrs.)

BCA0358
Electricity Co-op 1 **18.13 credits**
This a Year One, Semester One, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the electricity Apprenticeship Program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

BCA0359
Electricity Co-op 2 **18.13 credits**
This a Year One, Semester Two, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Electricity Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

BCA0360
Electricity Co-op Summer 1 **30.40 credits**
This a Year One, Summer One, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Electricity Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (912 contact hrs.)

BCA0361
Electricity Co-op 3 **18.13 credits**
This a Year Two, Semester One, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for

the Electricity Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

BCA0362
Electricity Co-op 4 18.13 credits

This a Year Two, Semester Two, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Electricity Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

BCA0363
Electricity Co-op
Summer 2 30.40 credits

This a Year Two, Summer Two, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Electricity Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (912 contact hrs.)

BCA0364
Electricity Co-op 5 18.13 credits

This a Year Three, Semester One, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Electricity Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

BCA0365
Electricity Co-op 6 18.13 credits

This a Year Three, Semester Two, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Electricity Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

BCA0366
Electricity Co-op
Summer 3 30.40 credits

This a Year Three, Summer Three, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Electricity Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (912 contact hrs.)

BCA0367
Electricity Co-op 7 18.13 credits

This a Year Four, Semester One, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Electricity Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

BCA0368
Electricity Co-op 8 18.13 credits

This a Year Four, Semester Two, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Electricity Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

BCA0369
Electricity Co-op
Summer 4 30.40 credits

This a Year Four, Summer Four, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Electricity Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (912 contact hrs.)

ACO0752
Business Forms 2.50 credits

This course is an introduction to federal, state and local forms that must be filed by most businesses, including payroll returns and sales taxes. Special fee. (75 contact hrs.)

ACO0948
Co-op Work Experience:
ACO 1-3 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 Departmental approval and completion of ACO 0948 Co-op Work Experience. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Cooperative Educational Office to obtain registration approval. Special fee. (30-90 contact hrs.)

Apprenticeship - Fire Sprinkler

BCA0470
Fire Sprinkler 1 2.67 credits

This course provides an introduction to the

Fire Sprinkler Fitter Trade and introduces workplace safety, materials, common tools and other topics necessary for the first semester apprentice. (80 contact hrs.)

BCA0471
Fire Sprinkler 2 2.67 credits

This course continues the topics introduced in Fire Sprinkler 1, and identifies and describes various types of tubing and pipe systems. (80 contact hrs.)

BCA0472
Fire Sprinkler 3 2.67 credits

This course provides information on various types of sprinkler systems for the second year apprentice. (80 contact hrs.)

BCA0473
Fire Sprinkler 4 2.67 credits

This course identifies and describes the purpose and operation of wet fire sprinkler systems and dry pipe fire sprinkler systems. (80 contact hrs.)

BCA0474
Fire Sprinkler 5 2.67 credits

This course provides an understanding of the planning and design of the fire sprinkler systems and the mathematics used to perform sprinkler system design and installation for the third year apprentice. (80 contact hrs.)

BCA0475
Fire Sprinkler 6 2.67 credits

This course continues the planning and design of the fire sprinkler systems, with emphasis on supply systems. (80 contact hrs.)

BCA0476
Fire Sprinkler 7 2.67 credits

Information on special extinguishing systems and fire pumps is presented in this course for fourth year apprentices. (80 contact hrs.)

BCA0477
Fire Sprinkler 8 2.67 credits

This course continues special extinguishing systems with basic hydraulic concepts, system design, and hydraulic calculations. An introduction to foremanship, documentation and tracking is included. (80 contact hrs.)

BCA0480
Fire Sprinkler Co-op 1 18.13 credits

This is a Year One, Semester One, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Fire Sprinkler Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

BCA0481
Fire Sprinkler Co-op 2 18.13 credits

This is a Year One, Semester Two, coordinated work-study program that reinforces the educational and professional growth of stu-

ACR0931**HVAC Co-op 2****18.13 credits**

This is a Year One, Semester Two, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Heating, Ventilation and Air Conditioning Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

ACR0932**HVAC Co-op 3****18.13 credits**

This is a Year Two, Semester One, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Heating, Ventilation and Air Conditioning Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

ACR0933**HVAC Co-op 4****18.13 credits**

This is a Year Two, Semester Two, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Heating, Ventilation and Air Conditioning Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

ACR0934**HVAC Co-op 5****18.13 credits**

This is a Year Three, Semester One, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Heating, Ventilation and Air Conditioning Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

ACR0935**HVAC Co-op 6****18.13 credits**

This is a Year Three, Semester Two, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Heating, Ventilation and Air Conditioning Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

ACR0936**HVAC Co-op 7****18.13 credits**

This is a Year Four, Semester One, coordi-

nated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Heating, Ventilation and Air Conditioning Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

ACR0937**HVAC Co-op 8****18.13 credits**

This is a Year Four, Semester Two, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Heating, Ventilation and Air Conditioning Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

ACR0940**HVAC 1****2.67 credits**

This course provides an introduction to the Heating, Ventilation and Air Conditioning Trade and presents information on mathematics and tools of the trade for first year apprentices. (80 contact hrs.)

ACR0941**HVAC 2****2.67 credits**

This course continues the topics presented in HVAC 1, and introduces students to heating and cooling systems. (80 contact hrs.)

ACR0942**HVAC 3****2.67 credits**

This course provides instruction for second year apprentices in gas laws and the properties of air, as well as the use and installation of various types of duct systems. The principles of combustion, mechanical maintenance, and basic electronics are also presented. (80 contact hrs.)

ACR0943**HVAC 4****2.67 credits**

The focus of this course is in understanding the function and operation of control systems, metering devices, compressors and heat pumps. Students will be able to complete the installation and servicing of this equipment. (80 contact hrs.)

ACR0944**HVAC 5****2.67 credits**

This course provides skills in maintenance and troubleshooting of various types of HVAC systems and equipment for the third year apprentice. (80 contact hrs.)

ACR0945**HVAC 6****2.67 credits**

This course is a continuation of HVAC 5, with the addition of information on air distribution and steam systems, as well as establishing and maintaining good customer relations. (80 contact hrs.)

ACR0946**HVAC 7****2.67 credits**

This course provides advanced blueprint reading, and presents the fourth year apprentice with information on energy conservation and management equipment and systems. (80 contact hrs.)

ACR0947**HVAC 8****2.67 credits**

Students learn about water quality and treatment, and how to design heating and cooling systems. This course also covers commercial and industrial refrigeration. (80 contact hrs.)

Apprenticeship - Plumbing

BCA0444**Plumbing Summer****Co-op 1****16.70 credits**

This is a Year One, Summer One coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Plumbing Apprenticeship Program Field Activities. This summer cooperative experience is the continuation and completion of Plumbing Co-op 1 and 2. (500 contact hrs.)

BCA0445**Plumbing Summer****Co-op 2****16.70 credits**

This is a Year Two, Summer Two coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Plumbing Apprenticeship Program Field Activities. This summer cooperative experience is the continuation and completion of Plumbing Co-op 3 and 4. (500 contact hrs.)

BCA0446**Plumbing Summer****Co-op 3****16.70 credits**

This is a Year Three, Summer Three coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Plumbing Apprenticeship Program Field Activities. This summer cooperative experience is the continuation and completion of Plumbing Co-op 5 and 6. (500 contact hrs.)

BCA0447**Plumbing Summer****Co-op 4****16.70 credits**

This is a Year Four, Summer Four coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Plumbing Apprenticeship Program Field Activities. This summer cooperative experience is the continuation and completion of Plumbing Co-op 5 and 6. (500 contact hrs.)

BCA0450**Plumbing 1****2.70 credits**

This course covers the essentials of code law and careers related to plumbing, tools, pipes and fittings used in plumbing installation, safety and hazardous materials training and review of basic mathematics and sciences applied to the plumber's craft. (80 contact hrs.)

BCA0451**Plumbing 2****2.70 credits**

This course provides an overview of installation practices of plumbing fixtures, faucets and valves, first aid, occupational safety and health, and blueprint reading and sketching. (80 contact hrs.)

BCA0452**Plumbing 3****2.70 credits**

Instruction includes plumbing installation techniques, including water pipes, distribution systems, water heaters, sewage and drainage fixtures and continued development of applied mathematics skills. (82 contact hrs.)

BCA0453**Plumbing 4****2.80 credits**

This course teaches welding techniques and safety, including soldering, brazing and cutting, metal-arc and oxy-acetylene welding and pipe tacking. Other topics include plumbing installation techniques involving sewage pumps and ejectors, venting, and hangers; scientific concepts of water and water pressure related to plumbing; rigging and hoisting techniques and safety are reviewed. (83 contact hrs.)

BCA0454**Plumbing 5****2.50 credits**

This course introduces residential and commercial installation of plumbing fixtures and appliances, develops more mathematical concepts used by plumbers, and covers gas codes for installation, inspection and testing. (76 contact hrs.)

BCA0455**Plumbing 6****2.50 credits**

This course covers more topics in applied mathematics used by plumbers including calculations of tank capacities, volume and weight of water, sizing storm drains and piping expansion. Advanced applied scientific topics include heat transfer, basic electricity, electric current, electrical safety and electrical troubleshooting and advanced structural blueprint reading, including floor plans, site plans, plumbing, electrical, HVAC, and detail plans. (76 contact hrs.)

BCA0456**Plumbing 7****2.50 credits**

This course introduces repairs and servicing of residential, commercial, institutional and industrial fixtures and piping systems. Mathematical concepts are advanced using formulas and tables to calculate pipe and system sizing. Heating systems are covered, including hot water boilers, steam boilers, hydroid, warm air, solar and humidification systems. (76 contact hrs.)

BCA0457**Plumbing 8****2.60 credits**

This course continues the science applications related to pumps and pump repair and maintenance. Advanced blueprint reading, sketching and materials take-off and estimates are covered. Plumbing codes are emphasized including regulations regarding sanitary drainage systems, medical facility plumbing, private sewage disposal, portable water supply pumps for mobile homes and trailer parks. (77 contact hrs.)

BCA0460**Plumbing Co-op 1****25 credits**

This is a Year One, Semester One, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom studies and field experience for the Plumbing Apprenticeship Program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (750 contact hrs.)

BCA0461**Plumbing Co-op 2****25 credits**

This is a Year One, Semester Two, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom studies and field experience for the Plumbing Apprenticeship Program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (750 contact hrs.)

BCA0462**Plumbing Co-op 3****25 credits**

This is a Year Two, Semester One, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom studies and field experience for the Plumbing Apprenticeship Program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (750 contact hrs.)

BCA0463**Plumbing Co-op 4****25 credits**

This is a Year Two, Semester Two, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom studies and field experience for the Plumbing Apprenticeship Program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (750 contact hrs.)

BCA0464**Plumbing Co-op 5****25 credits**

This is a Year Three, Semester One, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom studies and field experience for

the Plumbing Apprenticeship Program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (750 contact hrs.)

BCA0465**Plumbing Co-op 6****25 credits**

This is a Year Three, Semester Two, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom studies and field experience for the Plumbing Apprenticeship Program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (750 contact hrs.)

BCA0466**Plumbing Co-op 7****25 credits**

This is a Year Four, Semester One, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom studies and field experience for the Plumbing Apprenticeship Program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (750 contact hrs.)

BCA0467**Plumbing Co-op 8****25 credits**

This is a Year Four, Semester One, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom studies and field experience for the Plumbing Apprenticeship Program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (750 contact hrs.)

Apprenticeship - Sheet Metal

PTA0300**Sheet Metal Co-op 1****18.13 credits**

This is a Year One, Semester One, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Sheet Metal Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

PTA0301**Sheet Metal Co-op 2****18.13 credits**

This is a Year One, Semester Two, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Sheet Metal Apprenticeship program. Field activities are coordinated with classroom activities

to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

PTA0302

Sheet Metal Co-op 3 18.13 credits

This a Year Two, Semester One, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Sheet Metal Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

PTA0303

Sheet Metal Co-op 4 18.13 credits

This a Year Two, Semester Two, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Sheet Metal Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

PTA0304

Sheet Metal Co-op 5 18.13 credits

This a Year Three, Semester One, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Sheet Metal Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

PTA0305

Sheet Metal Co-op 6 18.13 credits

This a Year Three, Semester Two, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Sheet Metal Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

PTA0306

Sheet Metal Co-op 7 18.13 credits

This a Year Four, Semester One, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Sheet Metal Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

PTA0307

Sheet Metal Co-op 8 18.13 credits

This a Year Four, Semester Two, coordinated

work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Sheet Metal Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

PTA0390

Sheet Metal 1 2.70 credits

This course provides first year apprentices with an introduction to the sheet metal trade, as well as mathematics of the trade, tools of the trade, and steel and other metals, including fasteners, hangers and supports. (81 contact hrs.)

PTA0391

Sheet Metal 2 2.70 credits

This course provides instruction in principles of layout, sheet metal processes and parallel line development. (81 contact hrs.)

PTA0392

Sheet Metal 3 2.70 credits

This course provides second year apprentices with a continuation of mathematics for the trade, and an introduction to piping practices, radial line development, bend allowances and soldering. Students will also learn to interpret and use blueprints and specifications. (81 contact hrs.)

PTA0393

Sheet Metal 4 2.70 credits

Students will learn about standards and codes for the industry, including sheet metal duct fabrication standards. Information on insulation, gutters and downspouts, and roof flashing are also presented. (81 contact hrs.)

PTA0394

Sheet Metal 5 2.70 credits

Third year apprentices will learn about principles of airflow and of refrigeration, as well as about the equipment used in heating, ventilation and air conditioning. (81 contact hrs.)

PTA0395

Sheet Metal 6 2.70 credits

This course provides knowledge of the fabrication and layout of fiberglass duct, the principles of triangulation, and skills associated with field measurement. Students will also acquire knowledge and skills in welding, brazing and cutting, including safety requirements and practices. (81 contact hrs.)

PTA0396

Sheet Metal 7 2.70 credits

Fourth year apprentices learn about shop production and organization, including efficient operations and utilization of manpower. They also learn about the principles of air balance and air distribution systems. (81 contact hrs.)

PTA0397

Sheet Metal 8 2.70 credits

This course provides students with knowl-

edge of louvers, dampers, access doors, hoods, and ventilators. Students will also learn about fume and exhaust systems design. (81 contact hrs.)

PTA0941

Sheet Metal Co-op Summer 1 30.40 credits

This a Year One, Summer One, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Sheet Metal Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (912 contact hrs.)

PTA0942

Sheet Metal Co-op Summer 2 30.40 credits

This a Year One, Summer Two, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Sheet Metal Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (912 contact hrs.)

PTA0943

Sheet Metal Co-op Summer 3 30.40 credits

This a Year Three, Summer Three, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Sheet Metal Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (912 contact hrs.)

PTA0944

Sheet Metal Co-op Summer 4 30.40 credits

This a Year Four, Summer Four, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Sheet Metal Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (912 contact hrs.)

Architectural Drafting Technology

ARV0307

Cooperative Education Architectural Drafting 2 3 credits

This course is an advanced internship in the

field of architectural drafting. A signed agreement must specify the learning objectives that the student will accomplish, and must be signed by the student, faculty coordinator, and employment site supervisor. Special fee. (90 contact hrs.)

Banking

BAN0930 **Banking for Tellers** 1.50 credits

This course provides the necessary background information and hands-on training for an individual who wishes to obtain employment in today's banking industry. It includes orientation to different types of financial institutions and the regulations that affect them. Special fee. (45 contact hrs.)

BRC0109 **Teller Training** 3.50 credits

This course emphasizes the hands-on skills that a bank teller needs to master to perform effectively. Topics include cash handling and balancing at the end of the work shift, processing transactions and deposits, and compliance with banking laws and regulations. Customer service techniques and attitudes are also included. Special fee. (105 contact hrs.)

Business

MKA0250 **Economic Principles of Import/Export** 1 credit

This course will help the student understand the economic forces which affect import and export activity. The course will demonstrate the effect of the economic decisions of both U.S. and foreign governments on international commerce. Emphasis will be placed on real-world solutions. Special fee. (30 contact hrs.)

MKA0251 **Import/Export Financing** 2 credits

This course will show the student how public and private financing programs operate. A variety of financing vehicles, including letters of credit, will be discussed in a hands-on environment. Special fee. (60 contact hrs.)

MKA0300 **Customer Service/Business** 2.50 credits

This course follows a curriculum originally developed in cooperation with American Express. Topics include understanding of the customer, effective techniques in dealing with difficult customers, and supervision of customer service. Special fee. (75 contact hrs.)

MKA0949 **Cooperative Education Work Experience** 3-6 credits

This course provides an opportunity for the

student to put into practice the theory that is learned in the classroom/lab. A contract signed by the student, faculty coordinator, and work supervisors is required, which sets forth the learning objectives. Special fee. (90-180 contact hrs.)

SBM0002 **Small Business Management, Introduction** 2.50 credits

This course focuses on the problems that must be faced and overcome for the small business entrepreneur to be successful. Among topics covered are financial banking, employee relations, marketing plan, and legal considerations. Special fee. (75 contact hrs.)

Business Law

BUL0243 **Business Law I** 2.50 credits

The objectives of business law recognize the fact that classes are comprised of business and accounting students with varying abilities, previous experience and different backgrounds, and that they are seeking the basic legal concepts and skills necessary for personal, social and business effectiveness. Special fee. (75 contact hrs.)

Computer Science & Related Technologies

CGS0281 **Wireless Networking I** 2.50 credits

This course provides the student with a complete foundation of knowledge for entering into or advancing in the wireless networking industry. Topics include: an introduction to wireless LANs; RF antennas and accessories; wireless LAN standards; and wireless LAN organizations to link budget math, troubleshooting, performing a site survey. This course delivers hands-on training that benefits the novice as well as the experienced network professional. Prerequisites: CGV 0010 & CGS 0890. Laboratory fee. (75 contact hrs.)

CGS0282 **Wireless Networking II** 2.50 credits

This course provides the student with a complete foundation of knowledge for entering into or advancing in the wireless networking industry. Topics include: 802.11 architecture, MAC and physical layer discussions, troubleshooting wireless LAN installations, wireless LAN security and site survey fundamentals. This course is a second level course that delivers hands-on training that benefits the novice as well as the experienced network professional. Prerequisites: CGS 0286. Laboratory fee. (75 contact hrs.)

CGS0306 **Information Systems Development** 2.50 credits

Students will learn the design of management information systems (MIS) by using concepts of charting, investigating, documenting, and reporting. This is developed by using computerized case study software. Special fee. (75 contact hrs.)

CGS0566 **Microcomputer Operating Systems (DOS)** 2.50 credits

This is a comprehensive course in the use of operating systems for DOS Microcomputers. DOS concept, features, commands and their applications are presented. Commercial utility programs, hard disk utilization, Edlin and DOS batch programming will be covered in detail. Special fee. (75 contact hrs.)

CGS0948 **Co-op Work Experience** 1-3 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 Departmental approval and completion of CGS 0948 Co-op Work Experience. 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. Special fee. (30-90 contact hrs.)

CGV0250 **Database Applications** 2.50 credits

This is a comprehensive course in the use of a database for microcomputers. The concepts, features, and commands of a database are applied to a variety of applications. The contents of this course will continually change to keep pace with current technology. Prerequisite: CGV 0010 or computer experience is required. Special fee. (75 contact hrs.)

CTS0035 **Introduction to the "C" Program** 2.50 credits

An introductory course covering the syntax and rules of the "C" language. Students will learn the topics of program design, variables, output, flow control, and functions. Students are required to code and execute business applications. Special fee. (75 contact hrs.)

CTS0036 **Advanced "C" Programming** 2.50 credits

An advanced study in the techniques of programming using the "C" language. Structured modular programming and data structure are emphasized throughout the course. Students are required to code and execute business applications. Prerequisite: CTS 0035. Special fee. (75 contact hrs.)

CTS0050 **Introduction to Microcomputers** 2.50 credits

This course introduces the student to modern

microcomputer hardware and software. The topics covered include operation of microcomputer hardware and peripherals, operating system commands, word processing software and database management software. The 75 contact hours encompass both lecture and laboratory components. Special fee. (75 contact hrs.)

CTS0053**Word Processing 2.50 credits**

This is an introductory course using commercial microcomputer word processing software. The concepts, features, and commands of a word processing system are supplied to a variety of practical business applications. Classes are conducted in a hands-on lecture/laboratory environment. Each student is assigned a microcomputer to use during class. No previous computer training or experience is required. Special fee. (45 contact hrs.)

CTS0055**Electronic Spreadsheets with Applications 2.50 credits**

This course is a comprehensive course in the use of a spreadsheet for microcomputers. The concepts, features, and commands of a spreadsheet are applied to a variety of applications. Programming concepts will be introduced. Classes are conducted in hands-on lecture/laboratory environment. The content of this course will continually change to keep pace with current technology. Prerequisite: CGV 0010 or equivalent. Special fee. (75 contact hrs.)

CTS0065**Database and Applications & Programming 2.50 credits**

This course is designed as an entry level programming language course for those who have a basic knowledge of microcomputer software. The student will create a database and then write user friendly programs to add, delete, and modify and create various reports. The 75 contact hours are comprised of lecture and laboratory sessions or equivalent knowledge. Prerequisites: CGV 0010 or equivalent. Special fee. (75 contact hrs.)

CTS0080**Supporting Windows Server 2.50 credits**

This course includes a study of selection criteria for network hardware, management strategies, network performance optimization, advanced printing concepts, remote console management, multiple protocol support, and prevention and maintenance techniques. Special fee. (75 contact hrs.)

CTS0081**Supporting Windows Professional 2.50 credits**

A study of the terminology, components, design, installation and management of local area networks and a consideration of other data communication equipment are the focus in this course. Featured topics: elements of LAN system, LAN standards, design considerations, installation, LAN administration, and user operation. Special fee. (75 contact hrs.)

CTS0091**Implementing a Network Infrastructure 2.50 credits**

The student will be provided the opportunity to develop the skills necessary to install, configure, manage, and support a network infrastructure. Additionally, the student will configure the DHCP Server service, configure the DNS Server service, configure WINS, configure network security protocols, configure network security by using Public Key Infrastructure (PKI), configure network security by using Internet Protocol Security (IPSec), configure remote access to a network, support remote access to a network. Prerequisite: CTS 0080. Special fee. (75 contact hrs.)

CTS0092**Designing a Network Infrastructure 2.50 credits**

This course will provide the knowledge and skills necessary to develop a Windows networking services solution for enterprise networks. The course focuses on developing strategies for TCP/IP, DHCP, DNS, WINS, RAS, Remote Authentication Dial-in User Service (RADIUS), connection manager, routing, multicasting, demand-dial routing, VPN, IPSec, connection sharing, and proxy server. This course also introduces the process of translating business goals into strategies for implementing and managing the Windows networking services. Prerequisite: CTS 0093. Special fee. (75 contact hrs.)

CTS0093**Implementing Directory Services 2.50 credits**

The student will be provided the opportunity to gain the knowledge and skills necessary to install, configure, and administer Windows directory services. The course also focuses on implementing group policy and performing the group policy-related tasks required to centrally manage users and computers. Prerequisite: CTS 0080. Special fee. (75 contact hrs.)

CTS0094**Designing Directory Services 2.50 credits**

This course provides students with the knowledge and skills necessary to design a Windows directory services infrastructure in and enterprise network. Strategies are presented to assist the student in identifying the information technology needs of an organization, and then designing a directory services structure that meets those needs. Prerequisite: CTS 0093. Special fee. (75 contact hrs.)

CTS0095**Information Security 2.50 credits**

This course provides the student with a complete foundation of knowledge for entering into or advancing in the information technology security field. Topics include: an introduction to general security concepts; communication security; infrastructure security; basic cryptography; operational and orga-

nizational security. Including topics from troubleshooting to performing a site survey, this course delivers hands-on training that benefits the novice as well as the experienced network professional. Prerequisite: CTS 0091. Laboratory fee. (75 contact hrs.)

CTS0098**Infrastructure Security 2.50 credits**

This course will explore concepts of network defense and countermeasures as well as hardware and software required to design, configure, and implement secure networks. Security topics covered include in-depth TCP/IP packet and signature analysis, securing routers, securing network resources through Access Control List (ACL), and implementation of IPSEC using Linux and Windows Operating Systems (OS). The student will obtain hands-on instruction installing and using various security tools. Techniques for collecting, monitoring and auditing various activities will be afforded to the student. Students will analyze threats and intrusions for various business scenarios, and then determine which security policy provides the most protection at given acceptable levels of risk in order to conduct normal business activities. The course will provide a detailed presentation on the Internet and WWW structure, and the security issues associated with begin online. A combination of lectures, demonstrations, discussions, online assignments, and scenario-based projects are used. This course may be repeated up to three (3) times with different versions of the software when there have been substantial or significant version changes. Laboratory fee. (75 contact hrs.)

EEV0554**Networking Essentials 2.50 credits**

The student will be provided the opportunity to develop the skills necessary to identify the type, components, and design of a Local Area Network most appropriate for a given site. Additionally, the student will identify media, differentiate between networking standards, protocols, access methods, and determine which would be most appropriate for a given LAN. Prerequisite: CGV 0010. Special fee. (75 contact hrs.)

Criminal Justice & Related Technologies

CJC0104**Correctional Officer Basic Defensive Driver Training 0.53 credits**

This course is a combination of classroom and practical exercises designed to evaluate the corrections recruit's ability to operate an emergency vehicle. Students will learn the psychological factors affecting vehicle operations, the elements of emergency driving skills, and skid-pan recoveries. For School of Justice Basic Correctional Officer students only. Special fee. (16 contact hrs.)

CJD0601**Traffic Accident**

Investigator 2.66 credits
This course prepares students to become Traffic Accident Investigators by teaching them how to manage traffic accident crash scenes and how to complete an on-scene accident investigation. This course is limited to School of Justice students only. Special fee. (80 contact hrs.)

CJK0007**Introduction to****Law Enforcement**

1.36 credits

This is an introduction to law enforcement in Florida and students will learn the history of the Criminal Justice System in Florida and contemporary law enforcement issues. (11 contact hrs.)

CJK0008**Legal**

2.30 credits

This is an introduction to law and the students will learn the basics of law, ethics elements of a crime, professionalism, and court room procedure. (69 contact hrs.)

CJK0011**Human Issues**

1.33 credits

This course provides the student with a basic understanding of human relations with an emphasis on the student's ability as a Police Officer to influence others in a positive manner using interpretation skills. The student will learn the important role interpersonal skills play in the relationship between the police and community. For School of Justice students only. (40 contact hrs.)

CJK0017**Communications**

2.53 credits

In this course students will learn to take statements from victims, witnesses, and suspects; write clear concise and accurate incident and arrest reports; and will engage in note taking skills such as grammar, spelling and proper sentence structure. For School of Justice students only. (76 contact hrs.)

CJK0020**CMS Law Enforcement****Vehicle Operations**

1.60 credits

Students will learn the physiological and psychological factors affecting vehicle operations and 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. (48 contact hrs.)

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. (40 contact hrs.)

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. (80 contact hrs.)

CJK0041**Public Service Aide****Basic Training**

3.66 credits

This course prepares students to become Community Service Officers/Police Service Aides by providing them with the basic knowledge needed to conduct preliminary property crimes investigations. For School of Justice students only. Special fee. (110 contact hrs.)

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. (80 contact hrs.)

CJK0060**Patrol**

1.90 credits

This course provides potential police officers with the knowledge, skills and abilities to function as a Patrol Officer in a law enforcement agency. Various methods of patrol activity, officer safety, and techniques will be examined. For School of Justice students only. (57 contact hrs.)

CJK0061**Patrol 1**

1.93 credits

Students will learn problem solving, officer safety and survival, patrolling the assigned area and patrol functions. This course is the patrol 1 section of the Florida Department of Law Enforcement, Criminal Justice Standards and Training Commission New Basic Law Enforcement Recruit Training Program. CMS BRT Program, Version 2008.04. (58 contact hrs.)

CJK0062**Patrol 2**

1.33 credits

Students will learn about incident command, crowd control, criminal street gangs and extremist groups. Students will learn about Hazmat and Weapons of Mass Destruction. This is a vocational course in the patrol 2 section of the Florida Department of Law Enforcement, Criminal Justice Standards and Training Commission new Basic Law Enforcement recruit Training Program. CMS BRT Program, Version 2008.04. (40 contact hrs.)

CJK0070**Investigations**

1.77 credits

This course provides training for new recruits in the search and location of physical evidence, along with the reproduction and identification collection, preservation and transporting of evidence to the crime laboratory. A basic understanding of the investigation of crimes needed by the street officer in their initial involvement of a crime scene will be provided. In addition, the fundamentals of interviewing, interrogation and statement taking will be addressed. For School of Justice students only. (53 contact hrs.)

CJK0071**Criminal Investigations**

1.86 credits

The students will learn what is required when doing searches and location of physical evidence, along with the reproduction and identification collection, preservation and transporting of evidence to the crime laboratory. The students learn the basic understanding of the investigation of various crimes encountered by a street officer in their initial involvement of a crime scene. In addition, the fundamentals of interviewing, interrogation and statement taking will be addressed. For School of Justice students only. (56 contact hrs.)

CJK0075**Investigating Offenses**

1.33 credits

This course includes the causes and effects of domestic violence; common facts and misconceptions about suicide and risks procedures for prevention and intervention and an officers responsibilities; identifying signs of adult, elder and child abuse and the proper procedure for reporting each. This course also includes methods and skills for conducting an initial investigation, a death: The definition, characteristics and situation in which an officer may encounter Sudden Infant Death Syndrome (SIDS); procedures for crime scene management; evidence collection and handling; developing information; and preparing and investigation report. (40 contact hrs.)

CJK0076**Crime Scene Investigations**

0.80 credits

The students will learn the causes and effects of domestic violence; common facts and misconceptions about suicide and risks procedures for prevention and intervention and officer's responsibilities; identifying signs of adult, elder and child abuse and the proper procedure for reporting each. Students will learn the methods and skills for conducting an initial investigation, a death investigation, Sudden Infant Death Syndrome (SIDS) investigations, procedures for crime scene management; evidence collection and handling; developing information; and preparing an investigation report and characteristics and situations an officer may encounter. (24 contact hrs.)

CJK0082**Traffic Stops**

0.80 credits

This course is designed to teach students the necessary methods and skills for stopping a

vehicle for a violation or other lawful reason. Students will learn traffic laws, professionalism, how to make traffic stops, the unknown risks of a traffic stop, and identifying, initiating and making high-risk traffic stops. Special Fee. For School of Justice students only. (24 contact hrs.)

CJK0083
DUI Traffic Stops 0.80 credits

This course is designed to teach students to detect impaired driving. Students will learn to administer field sobriety tests, make arrests when appropriate, and record the evidence of a DUI violation. Special fee. For School of Justice students only. (24 contact hrs.)

CJK0086
Traffic Crash Investigations 1.06 credits

The student will learn traffic crash investigations; knowledge of common violations resulting in crashes; information gathering skills; identification and handling of evidence; photographing evidence; crash scene management, determining cause of accident; and completion of crash reports and driver exchange forms and returning the scene to normal. (32 contact hrs.)

CJK0090
Tactical Applications 1.80 credits

This course includes the Florida court system structures and how courts relate to law enforcement; instruction in the first response to emergency situations and rescue; general information involving law enforcement officers dealing with bomb explosives, bomb threats and weapons of mass destruction. Students will learn skills to perform different law enforcement functions while assigned to a special detail such as indoor or outdoor public events; the elements of unlawful assemblies and riots; and types of force that can be used in riotous situations and riot control procedures. For School of Justice students only. (54 contact hrs.)

CJK0095
Criminal Justice
Special Topics 0.67 credits

In this course students will receive additional instruction on topics from Modules 1-4 to reinforce learning and strengthen skills as needed. Based on the school's prior training experience, the school will select suitable topic(s) and identify topic(s) to students prior to the starting date of the basic recruit training academy. For School of Justice students only. (20 contact hrs.)

CJK0096
Criminal Justice Officer
Physical Fitness Training 2 credits

The student will learn the benefits of maintaining physical fitness to include nutrition and 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. (60 contact hrs.)

CJK0100
Interpersonal Skills 1 2.07 credits

This course provides an understanding of human behavior competencies as it relates to correction work. This course includes facts, information, and data concerning human behavior, with emphasis not only of the inmate population, but also on the Correction Officer as well. For School of Justice students only. (63 contact hrs.)

CJK0101
Interpersonal Skills 2 1.67 credits

This course is a continuation of CJK 0100 with greater emphasis on the inmates, their culture, how to communicate effectively, and ultimately to control inmate behaviors. The student will comprehend the characteristics, categories, purposes and functions of inmate societies. The factors of pressures, deprivations, and adjustments to imprisonment are also discussed. Students will learn the basic responsibilities and objectives of supervising inmates. For School of Justice students only. (51 contact hrs.)

CJK0102
Correctional Operations 4.60 credits

This module is dedicated to training Correctional Officers to perform daily operational duties and their responsibilities in the performance of same. For School of Justice students only. (63 contact hrs.)

CJK0109
State Exam Review for
Correctional Officer
Certification 0.70 credits

This course is designed to provide substantive course review of the Criminal Justice Standards and Training basic Correctional Officer curriculum. Diligent use of review materials in this course will serve as excellent preparation for the FDLE Correctional Officer Certification Exam. This course is for SJSA Correctional Officers only. (21 contact hrs.)

CJK0212
Cross-Over CO to
LE CMS High-Liability 0.26 credits

Basic recruit students will learn the required Firearms High-Liability Proficiency Skills using a handgun (revolver or semi-automatic pistol for both daylight and night) and a long gun (shotgun or semiautomatic rifle/carbine), pursuant to Rule 11B-35.0024, F.A.C. (8.0 contact hrs.)

CJK0221
Correctional Cross-Over to
LE Introduction and Legal 1.56 credits

The students will learn and understand the importance of ethics, values, and professionalism, both in their personal lives and in their role as law enforcement officers. (47 contact hrs.)

CJK0222
Correctional Cross-Over
to LE Communications 1.86 credits

Students will learn to take statements from victims, witnesses, and suspects; write clear

concise and accurate incident and arrest reports; and will engage in note taking skills such as grammar, spelling and proper sentence structure. For School of Justice students only. (56 contact hrs.)

CJK0223
Correctional Cross-Over
to LE Human Issues 1.06 credits

This course provides the student with a basic understanding of human relations with an emphasis on the student's ability as a Police Officer to influence others in a positive manner using interpretation skills. The student will learn the important role that interpersonal skills play in the relationship between the police and community. For School of Justice students only. (32 contact hrs.)

CJK0270
Criminal Justice Legal 1 1.53 credits

This section introduces the students to some historical and legal foundations. It also covers ethical considerations in Corrections and them provides the student with a foundation in Substantive and Procedural Law. The student is acquainted with constitutional rights of inmates through Inmate Rights and Responsibilities. For School of Justice students only. (46 clock hours)

CJK0271
Criminal Justice Legal 2 0.73 credits

This section introduces the student to the foundation of Constitutional Law, establishing this country as a "Rule of Law" nation. It also presents concepts and rules of evidence. Substantive crimes such as homicide and theft are covered, in addition to some procedural matters such as involuntary admission procedures. For School of Justice students only. (21 contact hours)

CJK0272
Criminal Justice
Communications 1.40 credits

This course is designed to familiarize the students with the skills needed to take notes in practical exercises. Additionally, students will gain knowledge about the procedures to follow when taking statements from inmates, and they will demonstrate their ability to write reports relevant to the field: incident, disciplinary, use of force, etc. For School of Justice students only. (42 contact hours)

CJK0280
CMS Criminal Justice Officer
Physical Fitness Training 1.33 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. Special fee. (40 contact hrs.)

CJK0422
Dart-Firing Stun Gun 0.26 credits

Students will learn how a dart-firing stun gun works, what effects a dart-firing stun gun has

on the human body, and the necessary medical considerations for individuals exposed to a dart-firing stun gun. This course satisfies the statutory requirements of FS. 943.1717(2) for an officer to use a dart-firing stun gun in Florida. Special fee. (8 contact hrs.)

CJK0441**Public Service Aide Basic****Training****3.66 credits**

This course prepares students to become Community Service Officers/Police Service Aides by providing them with the basic knowledge needed to conduct preliminary property crimes investigations. For School of Justice students only. Special fee. (110 contact hrs.)

CJK0451**Parking Enforcement Specialist****Training 1****0.53 credits**

This course prepares students to become Parking Enforcement Specialists by teaching them traffic law, enforcement and control concepts. Course content will also include interpersonal skills, courtroom procedures and how to complete traffic citations. This course is limited to School of Justice students only. (15.9 contact hrs.)

CJK0480**Emergency Preparedness****0.86 credits**

Students will learn how to handle emergency situations in a correctional setting such as fires, host age situations, riots and disturbances, and hazardous materials, etc. For School of Justice students only. Special fee. (26 contact hrs.)

CJT0801**Private Security Guard****Training 2: Class "G"****License****0.94 credits**

This course is necessary for compliance with the state minimum training standard for a Class "G" (armed Security Guard License. (28.20 contact hours)

SCY0010**Surety Agent****4 credits**

This course includes introduction to the Criminal Justice system, duties of surety and bail bonding agents; bail bonding process, bail bond laws and regulations; contract law, civil and criminal laws, laws of arrest and arrest techniques, judgment and indemnifications, courtroom organizations, community relations, employability skills and firearm safety. Special fee. (120 contact hrs.)

SCY0051**Private Investigator Intern****Course A****0.8 credits**

This course requires twenty four hours of training as required by Section 493.6203(b) ES. 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. (24 contact hrs.)

SCY0052**Private Investigator Intern****Course B****0.53 credits**

This course requires sixteen hours of training as required by Section 493.6203(b) ES. 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, pre-trial responsibilities, and the investigator as a witness. Prerequisite: SCY 0051. (16 contact hrs.)

SCY0501 Basic Security**Guard Training****1.33 credits**

This course is designed to prepare students to apply for Class "D" Private Security Officer license. Students will learn regulatory compliance, first aid and CPR, emergency procedures, ethics and entrepreneurship, public relations, courtroom procedures, interviewing techniques, the fundamentals of personal security, traffic direction and crowd control, and other security issues that may arise. Special Fee. (40 contact hours)

Engineering Technology-General

EEV0555**Maintenance Troubleshooting****Network Devices 1****2.50 credits**

The prospective network technician will learn concepts needed to understand the basis for maintaining and troubleshooting computer systems. Topics covered will include preventive maintenance, maintenance, environmental operating conditions and diagnostic tools. Special fee. (75 contact hrs.)

EEV0561**Microcomputer Maintenance****& Repair 1****2.50 credits**

This course is designed to provide a technician with the theoretical and practical requirements for maintenance and repair of microcomputer equipment. Topics include data communication codes and standards, transmission impairment, modems with lab applications. Special fee. (75 contact hrs.)

EEV0562**Microcomputer Maintenance****& Repair 2****2.50 credits**

This course teaches troubleshooting skills to repair microcomputers and printers, with emphasis on a hard disk maintenance and repair. Special fee. (75 contact hrs.)

EEV0811**D.C. Analysis****3.20 credits**

This course will introduce the field of electronics, clarify the basic laws of electricity, and provide hands-on training with various types of D.C. circuits and power supplies. Special fee. (95 contact hrs.)

EEV0813**Solid State Components****and Circuits****4.20 credits**

This course will introduce the solid state devices that are found in electronic equipment and provide hands-on training with circuits that contain these devices. Special fee. (126 contact hrs.)

EEV0821**Electronic Fundamentals****2.50 credits**

The course will introduce paper lab and safety procedures, provide hands-on soldering training, and introduce proper recording and reporting procedures. Special fee. (75 contact hrs.)

TDR0356C**Advanced CAD-Technical****4 credits**

This course focuses on the preparation of detailed drawings in 2-D and 3-D utilizing advanced practices with AutoCAD. Drawing will be generated as machine assemblies, foundation plans, roofing schedules, wall and window sections, piping drawings and sheet metal developments. Bills of materials and scheduling are presented as integrated drawings. Prerequisite: ETD 0542C. Lab time required. Special fee. (120 contact hrs.)

Film, Radio, TV Technology

RTT0002**Broadcast News****1.50 credits**

This course will familiarize students with the procedures followed in producing and writing broadcast news. The student will become familiar with news writing formats and style-book applications. The students will write several news stories and a newscast. Special fee. (45 contact hrs.)

RTT0170**Television Graphics****Procedures****3 credits**

This course requires the students to participate in the practical use of and production of visual graphics material for television, covering the standards and procedures established in the field, and the most common techniques and materials. Special fee. (90 contact hrs.)

RTT0176**TV Production Procedures 2****5 credits**

Students will refine skills as a member of a TV Studio Production Crew. Students will perform crew operations during various studio productions. Special fee. (150 contact hrs.)

RTT0177**Field Production Procedures 1****5 credits**

Students will participate in several single camera field productions. Students will shoot, edit and post produce single-camera field productions. Special fee. (150 contact hrs.)

RTT0178**Field Production Procedures 2****5 credits**

Students will learn and participate in

advanced single-camera production. Students will edit single-camera production using BetaCam SP A/B Roll Equipment. Students will learn and participate in a multi-camera format production outside the studio environment. Each student will perform various job functions, resulting in a class project. Special fee. (150 contact hrs.)

RTT0181
TV Production Procedures 1 5 credits
This course is to familiarize the student with the different equipment that prepares them to function as a member of a technical team for a video production in a Television Studio. Special fee. (150 contact hrs.)

RTT0182
Television Directing Procedures 5 credits
Students will learn the disciplines, techniques and procedures used by the Television Director during the studio production process. The student will assume the responsibilities of the Television Director and coordinate the various production elements from the Control Room. Students will learn key terms used by the Director and master the Control Room equipment. Prerequisite: RTT 0176. Special fee. (150 contact hrs.)

RTT0184
TV Editing Procedures 5 credits
This course is designed to familiarize the student with an editing suite and to give the student the opportunity to perform the functions of an editor. In order to do this, we will use BetaCam editing equipment and the Sony BVE 910 edit control. Students will also operate Character Generators, switchers and DVE generators to enhance assignments. Non-Linear editing has been added to this course. Students will work with and get an appreciation on the AVID non-linear editing system. Prerequisite: RTT 0177. Special fee. (150 contact hrs.)

RTT0189
TV Film Computer Applications Procedures 3 credits
Applications of software and computer languages in the television industry are presented to the student. Includes introduction to integrated software for scriptwriting, storyboarding, production scheduling, cost controls, project inventory and computer generated graphics. Special fee. (90 contact hrs.)

RTT0193
Advanced Editing Procedures 5 credits
This course is designed to familiarize students with non-linear editing. The course also gives the student the opportunity to perform the activities of a non-linear editor. In order to accomplish this, the course will use three non-linear editing systems; the AVID and Media 100 non-linear computer editing system for video and audio editing and DegiDesign with Pro Tools for audio only non-linear editing. Prerequisite: RTT 0184. Special fee. (150 contact hrs.)

RTT0200
Broadcast Communication Survey 1.50 credits
This course takes a look at the past, present and future of Broadcasting in the United States. Course content will include a brief history of broadcasting a look at the various technologies, and the relationship of Broadcast to the Government. The effect on human beings will also be examined. Special fee. (45 contact hrs.)

RTT0201
Radio Productions 3 credits
The purpose of this course is to prepare students for initial employment as a radio programming announcer broadcast technician, or to provide supplemental training for persons previously for currently employed in these occupations. Special fee. (90 contact hrs.)

RTT0210
Radio Programming Operations 2.50 credits
This course provides instruction and practice in the preparation and delivery of various types of radio programming. Knowledge station organization and procedure is combined with announcing in a manner required of announcer-operators in smaller radio stations. Special fee. (75 contact hrs.)

RTT0222
Announcing on Radio 2.50 credits
This course emphasized the fundamentals of good speech, effective oral delivery, interview materials that are included in the third class license exam, and introduces employability skills needed in the industry. Special fee. (75 contact hrs.)

RTT0400
TV Master Control Operations 3 credits
This course is designed to familiarize the student with master control operations typical of a commercial broadcast station, cable company or independent provider. The course includes station operation, programming, logs reading, SMPTE time code reading, switching operations, audio design and operation, satellite and microwave operation. Also includes: back-timing calculations, emergency procedures, documentation of engineering errors, and other techniques typical of a master control room operator. Reinforcement of operational functions learned in Television Production 1 including, video tape, audio mixer, switcher, character generator, and routing switcher operations. Special fee. (90 contact hrs.)

RTT0940
Television Studio Internship 1 5 credits
This is a 150-hour activity course that provides hands-on experience in a commercial or in-house television house production studio. A contractual agreement listing the learning objectives of the course must be drawn up and signed by the student, faculty member, and site supervisor. Special fee. (150 contact hrs.)

RTT0944
Radio Internship 1 5 credits
This course provides practice in the skills needed for employment in a smaller type radio station. The course is established by determination of six learning objectives which are approved and evaluated in writing by student, supervisor and faculty coordinator. Special fee. (150 contact hrs.)

RTT0945
Radio Internship 2 5 credits
This course provides more advanced practice in the skills needed for employment in a smaller type radio station. The course is established by determination of learning objectives which are approved and evaluated in writing by student, supervisor and faculty coordinator. Special fee. (150 contact hrs.)

Fire Science

FFP0021
Fire Fighter Minimum Standards 15 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. (450 contact hrs.)

FFP0077
First Responder 1.50 credits
This course is designed as 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. Special fee. (45 contact hrs.)

General Business

GEB0036
Entrepreneurship and Private Enterprise System 2.50 credits
This course is designed to provide an introduction to the American private enterprise system and to business problem solving techniques. Topics include: human relations, entrepreneurship, decision making, business law concepts and characteristics of the American enterprise system. Special fee. (75 hrs.)

GEB0251
Cultural Issues in Conducting Business Abroad 1 credit
This course will examine the development of culture and foster its understanding, and will identify various behavioral patterns and communications styles within different cultures. In addition, this course will focus on the enhancement of interpersonal sensitivities

during the interactions with individuals of different ethnicity, gender, age, background, etc., and the impact of these differences when conducting international activities. Special fee. (30 contact hrs.)

Graphic Arts

GRA0420 **Computer Graphic Design** 4 credits

This course is intended to train the desktop publishing student in programs that enable one to create and manipulate graphic illustrations. The two standard programs that are used in the industry are utilized, with lab activities that highlight important program features. Special fee. (120 contact hrs.)

GRA0430 **Desktop Publishing** 4 credits

This class explores the qualities and abilities of Aldus PageMaker, and industry-standard page layout program. Desktop publishing techniques are thought as foundation for the production of high quality printed publications using relatively inexpensive equipment: personal computers, desktop scanners, and laser printers. Class lectures are supported with audiovisual presentation and extensive handouts. Laboratory classes consist of a series of typical page layout jobs. Special fee. (120 contact hrs.)

GRA0446 **Principles of Typography** 4 credits

Typography is the art of designing printed matter using type as a medium. The history and development of typography, the use of printer's measurements and the aesthetic uses of type will be covered in the lecture form. Instruction also will include industry standard typesetting equipment, desktop publishing personal computers, software and the production of learned through hands-on project assignments. Special fee. (120 contact hrs.)

GRA0451 **Graphic Photography Processes** 4 credits

Graphic photo processes-line is a basic course in the use of a graphic arts process camera, films, and chemistry. Numerous hands-on projects will include determining exposure and development times, enlargements and reductions, copying, scaling, print making, and proofing. Special fee. (120 contact hrs.)

GRA0452 **Halftone Processes for Graphic Arts** 4 credits

The purpose of this course is to teach the students to create and manipulate halftone screens. Numerous hands-on projects will cover the use of this technique, the manipulation of tones by controlled exposures and development procedures. Prerequisite: GRA 0451. Special fee. (120 contact hrs.)

GRA0455 **Color Reproduction Technology 1** 2 credits

This course is designed to introduce the theory of how the eye distinguishes color based on its hue, brightness, and saturation. Theory is then applied to how it is reproduced through the printing process. Course highlights include additive and subtractive colors, transmission and reflection copy, paper and ink requirements, and the different printing processes are discussed throughout this class. Special fee. (60 contact hrs.)

GRA0457 **Color Electronic Scanning** 3 credits

This course is an advanced approach to electronic methods to color reproduction. The student will learn state-of-the-art methodology for color printing. Prerequisite: GRA 0455. Special fee. (90 contact hrs.)

GRA0460 **Graphic Design 1** 4 credits

This is an introduction to the basic skill technique of visual communication problems such as those involving perspective, proportion, and representative drawing. Special fee. (120 contact hrs.)

GRA0461 **Graphic Design 2** 4 credits

This course trains on the process of quality layout and graphic design. It covers studio projects such as ads, brochures, and logo designs. The basics of formal graphic design are covered in a creatively professional standard. Special fee. (120 contact hrs.)

GRA0463 **Graphic Design 4** 4 credits

This is a problem-solving course in graphic communications. Studio projects such as self-identity campaigns, book covers, label design and similar are covered. Electronic publishing skills in packages as Illustrator, Freehand, and Photoshop are utilized. Special fee. (120 contact hrs.)

GRA0465 **Digital Graphic Painter** 4 credits

This course is designed for students, working from photographs, representing the natural world on the newest artistic media: the personal computer. Fractal Design's Painter software enables student to use a wide variety of digital tools and surfaces to create electronic illustrations. Special fee. (120 contact hrs.)

GRA0472 **Offset Stripping 2** 4 credits

This is a vocational credit course that is an advanced course in film assembly for multi-color and 4 color process film assembly using the emulsion-up method. Hands-on projects will range from simple mechanically separate (fake color) projects to 4-color process separations for an 8-page brochure. This course is highly recommended because of the increased demand for color within the advertising field. Special fee. (120 contact hrs.)

GRA0474 **Offset Presswork 1** 4 credits

This is a vocational credit course that is divided into two sections: theory/practice and co-op training. The theory/practice section will cover the six main systems of a press covering the names of each part, its function, techniques and make-ready. The six systems are the feeder, register, main printing, delivery, dampening, and inking. Practice sessions setting up each system for each different paper sizes and stocks will be given to each student. The Co-op training section will have the student working in a local printing plant with live jobs to gain additional skills and to increase efficiency. Special fee. (120 contact hrs.)

GRA0481 **Paper in Graphics** 1.50 credits

This course is a review of the various types and specifications of paper that are used for various types of graphic production tasks. The course is appropriate also for upgrading for persons involved in purchasing departments. Special fee. (45 contact hrs.)

GRA0840 **Web Page Design One** 4 credits

This course is an introduction to the technologies and techniques of designing for the World Wide Web. This course covers all the key elements of Web design from concept to completion. The course also covers a basic introduction to WYSIWYG HTML editors. Special fee. (120 contact hrs.)

GRA0948 **Co-Op Work Experience: GRA** 1-3 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 departmental approval and completion of GRA 0948 Co-op Work Experience. 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. Special fee. (30-90 contact hrs.)

GRV0540 **Advanced Electronic Publishing** 4 credits

This course will teach students this high-end electronic publishing program whose features include extremely tight typographic and photographic controls. A series of job layouts will be executed in the lab. Special fee. (120 contact hrs.)

Health Information Management

HIM0001 **Introduction to Health Information Management** 1-2 credits

This is an introductory course in the prin-

ciples of health information management. Students will learn ethical aspects and components of the health record, proper documentation, purposes and uses; legal principles that govern the health information field including access to patients' records, confidentiality, and informed consent. (30-60 contact hrs.)

HIM0013**Medical Law and Ethics 1 credit**

This course focuses on the ethics of medicine and medical practice. Legal requirements and implications to the medical profession are stressed. Special fee. (30 contact hrs.)

HIM0061**Medical Record Transcription 1 1.50 credits**

This course covers the basic foundations of medical transcription to include role, ethics and legal responsibilities of the transcriptionist. Equipment, types of medical reports, quality control and reference materials are also discussed. Special fee. (45 contact hrs.)

HIM0061L**Medical Record Transcription Applications 1 6 credits**

This course is the applications for HIM 0031. Student will improve typing skills and correct use of basic transcription equipment. Prerequisite: HIM 0061. Special fee. (180 contact hrs.)

HIM0062**Medical Record Transcription 2 1.50 credits**

This course is an in-depth study of types of medical reports and their components, qualitative and quantitative control standards and phraseology and language of various medical specialties. Special fee. (30-60 contact hrs.)

HIM0062L**Medical Record Transcription Applications 2 6 credits**

This course is the applications for HIM 0032. Transcription from selected medical specialties. Prerequisite: HIM 0062. Special fee. (60-180 contact hrs.)

HIM0063**Medical Record Transcription 3 1-2 credits**

This course focuses on the reports and terminology used primarily in pathology and autopsy procedures. Employability skills will also be discussed. Special fee. (30-60 contact hrs.)

HIM0063L**Medical Record Transcription Applications 3 2-7 credits**

This course is the laboratory for HIM 0033. Transcriptions of reports and paraphrasing according to the content of dictation and terminology used in pathology and autopsies are focused. Basic principles of word processing are practiced. A level of speed and accuracy consistent with employment standards is required. Prerequisite: HIM 0063. Special fee. (60-120 contact hrs.)

HIM0220**ICD-9-CM Coding 1 1 credit**

This course examines the organization and development of nomenclatures and classification systems. Introduction to the international classification of disease (ICD-9-CM), volumes 1, 2 and 3. The characteristics and conventions of ICD-9-CM. Special fee. (30 contact hrs.)

HIM0220L**ICD-9-CM Coding Applications Laboratory 1 1 credit**

This course deals with the application of the basic principles, characteristics and conventions of ICD-9-CM. Special fee. (30 contact hrs.)

HIM0228**ICD-9-CM Coding 2 1.50 credits**

This course focuses on the analysis and coding of diagnosis, procedures and symptoms with ICD-9-CM. Definitions and principles of the Uniform Hospital Discharge Data Set (UHDDS) with emphasis on assignments of the principal diagnosis and sequencing. Special fee. (45 contact hrs.)

HIM0228C**ICD Coding Systems 5 credits**

This is a core International Classification of Disease (ICD) coding course. Students will learn ICD coding systems using sample exercises and medical records to develop skill and accuracy in coding in various health care settings, including use of official coding guidelines and reporting requirements appropriate to the coding situation. Corequisite: HIM 0472. (150 contact hrs.)

HIM0228L**ICD-9-CM Coding Applications Laboratory 2 2 credits**

This course focuses on analyzing and coding of diagnosis, procedures, and symptoms with ICD-9-CM. Application of principles of the Uniform Hospital Discharge Data Set (UHDDS), selection of the principle diagnosis, and sequencing. Prerequisite: HIM 0220L; Corequisite: HIM 0228. Special fee. (60 contact hrs.)

HIM0230**ICD-9-CM Coding 3 1.50 credits**

This course explores the relationship of diagnosis related groups (DRGs) and the Protective Payment System (PPS) to coding. The components of the DRG system and the Protective Payment regulations. Procedures for ensuring data quality. Special fee. (45 contact hrs.)

HIM0230L**ICD-9-CM Coding Applications 3 Laboratory 2 credits**

This course focuses on the application of the Prospective Payment Regulations for DRG validation assignment of the DRGs and procedures for ensuring data quality. Prerequisite: HIM 0228L; Corequisite: HIM 0230. Special fee. (60 contact hrs.)

HIM0250**Current Procedural Terminology (CPT-4) Coding 1.50 credits**

Current procedural terminology (CPT-4) coding principles are emphasized. The course will involve activities in which medical record professionals code and classify procedures in CPT for purposes in standardization, retrieval, and statistical analysis. Special fees. (45 contact hrs.)

HIM0250**Current Procedural Terminology (CPT-4) Coding 1.50 credits**

Current procedural terminology (CPT-4) coding principles are emphasized. The course will involve activities in which medical record professionals code and classify procedures in CPT for purposes in standardization, retrieval, and statistical analysis. Special fees. (45 contact hrs.)

HIM0250C**Ambulatory Care Coding Systems 2 credits**

This is an introductory course on coding using HCPCS/CPT systems in the ambulatory care environment. Students will learn ambulatory care coding of all body systems, coding guidelines and reporting requirements, using sample exercises to develop skill and accuracy. Prerequisites: HIM 0472, 0228C. Corequisite: HIM 0285C. (60 contact hrs.)

HIM0271**Computerized Medical Insurance Billing 1.50 credits**

Computers in the medical office and their use in billing insurance are the focus of this course. Electronic claims transmission and how it affects cash flow in the medical office is explored. The advantages of a computer system versus a manual system are discussed. Special fee. (30 contact hrs.)

HIM0271L**Computerized Medical Insurance Billing Applications 1.50 credits**

This course addresses applications for automated medical insurance billing. The student will learn how to file medical insurance claims using one or more medical insurance billing software programs. Electronic claims transmission is explored. Emphasis is placed on understanding the insurance claim process from beginning to end. Corequisite: HIM 0271. Special fee. (45 contact hrs.)

HIM0274**Health Insurance Claims/Delinquent Claims and Problem Solving 1.50 credits**

This course reveals how insurance claims are developed and processed from the health care provider's office to the insurance company. Delinquent claims and solving common billing problems are explored. Various health plans are discussed. Prerequisites: HIM 0228, 0228L; Corequisites: HIM 0230, 0230L. Special fee. (45 contact hrs.)

HIM0274C**Health Care Billing and Reimbursement****4 credits**

This is a foundation course in healthcare reimbursement. Students will learn the reimbursement methods and concepts related to healthcare and prospective payment system including DRGs, APCs and ASC groups, patient billing and accounting software in claims processing, compliance, the role HIM plays in the Charge Master maintenance and revenue cycle. Prerequisite: HIM 0650. (120 contact hrs.)

HIM0280C**Physician Coding****2 credits**

This course will examine coding, data quality, and physician services billing. Students learn to read and interpret physician office documentation. Special emphasis is placed on assigning Evaluation and Management (E/M) codes, outpatient diagnostic coding guidelines, Current Procedural Terminology (CPT), Health Care Financing Administration Common Procedure Coding Systems (HCPCS) codes, and local codes. Prerequisite: HIM 0250. Corequisites: HIM 0271, 0271L. Special fee. (60 contact hrs.)

HIM0290C**Advanced Coding Systems****3 credits**

This is an advanced course in ICD, CPT and HCPCS coding systems. Students will learn guidelines and applications to more complex case studies and health records according to current ethical standards of practice, Inpatient and Outpatient Prospective Payment Systems, encoding software and grouper practice applications. Prerequisite: HIM 0228C. Corequisite: HIM 0250C. (90 contact hrs.)

HIM0434**Basic Principles of Disease****2 credits**

This is a basic course in human disease. The student will learn all body systems diseases and conditions, including etiology, clinical features, therapy and prognosis; basic pharmacology by body systems including antivirals, antibiotics, vaccines, immunizations and chemotherapy agents. Prerequisite: HIM 0450. (60 contact hrs.)

HIM0450**Human Anatomy and Physiology for Health****Information Management****2 credits**

The structure and functions of the systems of the human body are emphasized. Dynamics of physiology, terminology and physiological relationships of the systems are addressed. Special fee. (60 contact hrs.)

HIM0473**Medical Terminology****2.50 credits**

This is a foundation course in the structure of medical terms with emphasis on spelling, pronunciation and definition. Students will learn medical terms related to major disease processes diagnostic procedures, laboratory tests, abbreviations, drugs and treatment modalities. Corequisite: HIM 0228C. (75 contact hrs.)

HIM0615**Computer Operations for Medical Applications****1 credit**

This course provides instruction in basic word-processing skills that are required to perform computer operations in health care facilities. Special fee. (30 contact hrs.)

HIM0650**eHealth Care Delivery Systems****2 credits**

This is an introductory course in basic computer software skills. Students will learn about commonly available software tools used in healthcare, including introduction to encoding tools and computer assisted coding software, electronic health record processes and the unique computerized systems environment found in U.S. healthcare delivery systems. (60 contact hrs.)

HIM0801**Medical Record Transcription****Clinical Practice****5 credits**

This course focuses on the clinical practice in various health care settings in the community. The student will utilize all types of medical transcription procedures in preparation for transition into the work place. Special fee. Prerequisites: HIM 0061, 0061L, 0062, 0062L. (150 contact hrs.)

HIM0817**Professional Practice****Experience****3.80 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. Prerequisite: HIM 0228C, 0250C, 0285C. (120 contact hrs.)

Health Science

HSC0003**Introduction to Health Care****3 credits**

This course is an introduction to the health care environment, focusing on the health care team and delivery systems. Emphasis is placed on legal responsibilities, ethical issues, safety, infection control, communication, interpersonal behaviors, wellness and disease. (90 contact hrs.)

Management

MAN0001**Introduction to Management****2.50 credits**

This course is designed to provide an introduction to Management and its basic functions. Tapes include human relations, entrepreneurship, goal setting and planning, decision making and motivation, and counseling in problem situations. Special fee. (75 contact hrs.)

MAN0005**Effective Supervision****2.50 credits**

This course helps develop the skills that are necessary for success in a supervisory or managerial position. Topics include communication skills, leadership and motivation, and counseling in problem situations. Special fee. (75 contact hrs.)

MNA0103**Human Relations at Work****2.50 credits**

This course explains specific ways to improve interpersonal communications and other human relations skills. Students will also examine the role of self-esteem, values, attitude, and personality traits in performing their job. Special fee. (75 contact hrs.)

MNA0789**Presentation Skills Business****1 credit**

This course intends to make the participant aware of the specific steps necessary for making an oral or written communication. Special fee. (30 contact hrs.)

MNA0991**Selected Studies****1-5 credits**

This course is designed to offer an in-depth treatment of special areas under the various occupational categories: It may be varied each term according to faculty and student planning. This offering is numbered 0991, with prefix of the subject area, in the department or discipline of study: Credits only apply to PSAV certificate. Prerequisite: Permission of the instructor and department chairperson. (30-150 contact hrs.)

Marketing

MKA0011**Survey of Marketing****2.50 credits**

This course represents the key role of marketing in today's business-oriented society. The participant is required to apply the basic concepts of marketing to a local business enterprise, and hands-on application is the focus of the course. Special fee. (75 contact hrs.)

MKA0023**Effectiveness in Sales****1 credit**

This course helps participants identify strengths and weaknesses in sales effectiveness, analyzes one's sales approach with a selected customer, helps improve negotiating skills, and review suggestions from experts in salesmanship. Special fee. (30 contact hrs.)

MKA0061**Strategic Marketing for the Small Business****2.50 credits**

The course provides strategic and practical applications for the small business owner and entrepreneur. Topics to be covered are marketing mix, small business marketing, low cost media marketing strategies, recession planning, and the development of a marketing plan. Special fee. (75 contact hrs.)

MKA0242**Export/Import Marketing Introduction****2.50 credits**

This is a practical course designed to assist the participant enter the field of importing and exporting in a metropolitan that is of the major international marketing areas in the world. A step-by-step application of procedures is followed. Special fee. (75 contact hrs.)

MKA0243**Introduction to Foreign Trade****1 credit**

This course will serve as an overview of the international business environment and the institutions which affect business in the international arena. International economic, political, cultural, and trade business issues will be analyzed and international business theory will be introduced within a practical application format. A broad view of the international economy will be included as well as the importance and impact of economic interdependence. Special fee. (30 contact hrs.)

MKA0244**Gathering Facts for****International Marketing****1 credit**

This course will help participants identify profitable international markets and business areas, as well as new product lines. Sources of information for successful international marketing will be identified and discussed. Special fee. (30 contact hrs.)

MKA0245**Import/Export 1****1 credit**

This is a nuts and bolts class for the novice and the experienced importer or exporter. The student will learn how to start and maintain import/export companies, how to identify the market, find the supplies and customers, and buy and sell overseas. Special fee. (30 contact hrs.)

MKA0246**Import/Export 2****1 credit**

This is a continuation of Import/Export 1. Previous topics will be reviewed and will continue with these topics: buying and selling overseas, how to ship and document correctly, maintaining business records, what taxes are to be paid, and to make a profit. Special fee. (30 contact hrs.)

MKA0248**Marketing Strategies for Foreign Trade****1 credit**

This course will address the international trade globalization and the specific characteristics of different markets, not only from a strategic viewpoint but also from a product-specific perspective. Geo-demographic distribution of the "common markets" will also be discussed. Special fee. (30 contact hrs.)

MKA0516**Public Relations****2.50 credits**

The goal of Public Relations is for students to gain valuable skills and insights related to the Public Relations professional, which will enable them to become more productive

employees and entrepreneurs. Students will gain these skills and will have an insight into business problem analysis, and will receive practical experience in both written and oral communication skills. Special fee. (75 contact hrs.)

MKA0623**Food Store Sanitation****1.50 credits**

This course provides food store personnel with a comprehensive understanding and basic knowledge needed to plan and implement a workable sanitation plan and to show how to keep it going while saving money too. Special fee. (45 contact hrs.)

MKA0624**Food Store Security****1 credit**

This course provides food store personnel with a comprehensive procedures and policies to follow to prevent employee theft, vendor theft, front end losses, shoplifting, robberies, and burglaries, thereby reducing figures and increasing store profits. Special fee. (30 contact hrs.)

MKA0625**Food Merchandising:****Principles and Practices****1.50 credits**

This course provides food store personnel a comprehensive understanding of the basic principles underlying food merchandising practices in the United States. Special fee. (45 contact hrs.)

MKA0626**Grocery Management Operations****1 credit**

This course provides practical instruction in essential management areas such as inventory management, merchandising, operating for profit, as well presenting a product breakdown of the grocery department such as dairy, frozen foods, general merchandise, health and beauty aids. Special fee. (30 contact hrs.)

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 musculoskeletal system and innervations. Special fee. (75 contact hrs.)

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 musculoskeletal systems and innervations as well as clinical pathologies related on those systems. Special fee. (75 contact hrs.)

MSS0215**History and Standards for Massage Therapy****1 credit**

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. Special fee. (30 contact hrs.)

MSS0250**Introduction to Massage Therapy****1 credit**

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. Special fee. (30 contact hrs.)

MSS0250L**Introduction to Massage Therapy Laboratory****6 credits**

This course is the laboratory for MSS 0250. This course provides opportunities for the practical application of the theories and principles of therapeutic massage. Special fee. (180 contact hrs.)

MSS0281**Allied Modalities****3.50 credits**

This course covers the study of the advanced theories and techniques for massage therapy. Content includes: Oriental Bodywork, Reflexology, Trager Approach, Rolfing, Craniosacral Therapy, Infant Massage, Pregnancy Massage and Aromatherapy. Special fee. (105 contact hrs.)

MSS0300**Hydrotherapy Modalities****1 credit**

This course focuses on the history and development of hydrotherapy, application in equipment used, and the associated standards. Special fee. (30 contact hrs.)

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. Special fee. (45 contact hrs.)

MSS0803C**Massage Therapy Clinical Practicum****3 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. Special fee. (90 contact hrs.)

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. (240 contact hrs.)

MSS0996**Massage Therapy - Transitional****8 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 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. (240 contact hrs.)

Mathematics - Vocational Level

MTB0102**Business Mathematics****2.50 credits**

This course is a review of basic mathematics: in business. Topics include but are not limited to the following: cash and trade discounts, commissions, mark-up, depreciation, interest and bank discounts, payroll records, taxes, analysis of financial statements, stocks and bonds, inventory calculations, notes and installment credit, bank records, annuities, and sinking funds. Special fee. (75 contact hrs.)

Medical Assisting

HIM0540**Electrocardiography/Emergency Procedures****2 credits**

Students will learn 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. Furthermore the maintenance of emergency equipment and implementing emergency procedures in the medical office is revised. Special fee. (60 contact hrs.)

MEA0204**Theoretical Aspects of Clinical Skills****1 credit**

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. (30 contact hrs.)

MEA0204L**Application of Clinical Skills****2 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. Special fee. (60 contact hrs.)

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. Special fee. (60 contact hrs.)

MEA0234**Pathophysiology & Disease for Medical Assistants****4 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. (120 contact hrs.)

MEA0242**Pharmacology for the Medical Assistant****3 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. Special fee. (90 contact hrs.)

MEA0254**Physician Office Laboratory Procedures****2 credits**

This course focuses on the fundamentals of diagnostic tests, including urinalysis, basic office bacteriology, hematology, blood chemistry, theoretical concepts of specimen collection and processing. The principles of aseptic techniques, infection control, and safety procedures are discussed. Compliance with quality assurance practices is emphasized. (60 contact hrs.)

MEA0254L**Physician Office Laboratory Procedure Applications****2 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. Special fee. (60 contact hrs.)

MEA0258**Radiology for the Medical Assistant****3 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. Special fee. (90 contact hrs.)

MEA0322**Office Management and Professional Issues for the Medical Assistant****3 credits**

This course prepares the student to demonstrate 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. Special fee. (90 contact hrs.)

MEA0334C**Medical Coding/Insurance Billing with Collections****4 credits**

The student will learn processing health insurance claims using procedural and diagnostic coding and apply current government regulations affecting third-party reimbursement. Billing, electronic claims transmission, and collection systems are emphasized. Special fee. (120 contact hrs.)

MEA0343**Computers in the Medical Office****3 credits**

This course is intended to provide 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. Special fee. (90 contact hrs.)

MEA0540**Electrocardiography/Emergency Procedures****2 credits**

The student will learn 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 is also reviewed. Special fee. (60 contact hrs.)

MEA0802**Clinical Externship for the Medical Assistant****3 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. Special fee. (90 contact hrs.)

MEA0810**Administrative Externship for the Medical Assistant****3 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. (90 contact hrs.)

MEA0832**Diagnostic Externship in Medical Assistant****3 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. Special fee. (90 contact hrs.)

Medical Laboratory Technology

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. Special fee. (15 contact hrs.)

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. (45 contact hrs.)

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. Special fee. (15 contact hrs.)

Office Technology

OCA0301**Beginning Word Processing****2.50 credits**

This course provides a comprehensive orientation to the features of one or more leading word processing software programs (i.e., WordPerfect) with hands-on experience in a lecture/laboratory environment. Topics include: creating, editing, formatting, and printing simple documents; blocking text for modification; working with hidden codes; moving and copying paragraphs; searching and replacing words; and using the spell checker and thesaurus. No previous computer training or experience required. Basic control of the keyboard is highly recommended prior to this class. Special fee. (75 contact hrs.)

OCA0312**Advanced Word Processing****2.50 credits**

Students will complete formatting applications on microcomputers using at least two microcomputer word processing programs. Comparisons of most recent release to that of former releases will be made; use of program dictionary, Thesaurus, and electronic publishing will be included. Special fee. (75 contact hrs.)

OTA0101**Beginning Keyboarding****1.50 credits**

This course emphasizes techniques and skills in keyboarding/typewriting and introduces how to format business papers such as letters, manuscripts and tabulated material. Students who have satisfactorily completed one year of typewriting in high school normally should not enroll in this course. Special fee. (45 contact hrs.)

OTA0102**Intermediate Keyboarding****2.50 credits**

This course introduces techniques to maximize speed and accuracy, which will allow students, maximized office productivity. Prerequisite: OTA 0101 or one year of high school typewriting with a minimum speed of 35 wpm. Special fee. (75 contact hrs.)

OTA0105**Advanced Keyboarding****2.50 credits**

This course presents advanced formatting/typewriting work including: detailed business reports, office correspondence, tables, legal and/or medical documents. Students are required to use word processing skills and develop straight copy speed to meet office production standards. Prerequisites: OTA 0102 with a grade of "C" or better, and OFT 0712 with a grade of "C" or better. Special fee. (75 contact hrs.)

OTA0171**Machine Transcription****2.50 credits**

This course is designed to enable the student to learn to transcribe from recorded dictation. Specifically, the student will learn to transcribe business documents in acceptable format. Special fee. (75 contact hrs.)

OTA0303**Writing for Business****2.50 credits**

This course is designed for students who are interested in developing a new attitude regarding business correspondence by omitting old verbiage. Students will learn to utilize and demonstrate good communication skills in their business writing. Special fee. (75 contact hrs.)

OTA0311**Basic Business English****2 - 2.50 credits**

This course prepares the student to demonstrate skills in grammar, punctuation, spelling and proofreading required for work in a business or office environment. Special fee. (60-75 contact hrs.)

OTA0421**Office Procedures 1****2.50 credits**

This course introduces students to careers in Office Technology and emphasizes various ways information is electronically processed in today's office environment. Special emphasis is placed on units in career information, business telephone usage, filing, and human relations skills needed to be successful as an office worker. Special fee. (75 contact hrs.)

OTA0426**Office Procedures 2****2.50 credits**

This course is designed to provide students with advanced realistic office applications and problems that will require students to perform specific outcomes at required competency level. Special fee. (75 contact hrs.)

OTA0470**Legal Office Procedures****2.50 credits**

This course is designed to train students to become entry-level assistants to paralegals/legal assistants and attorneys. Specifically, it will provide skills for working in a legal office. It will also enable secretaries to make the transition from business and industry to the legal field. Special fee. (75 contact hrs.)

OTA0905**Open Office Technology Lab****1 credit**

This course is intended to provide additional time-on task for students who are attempting to fulfill the requirements of the Word Processing or Secretarial Vocational Credit Certificate programs. The course is individualized to accommodate itself to each student's needs. Special fee. (30 contact hrs.)

OTA0932**Professional Legal****Secretary (PLS) Review****1.50 credits**

This is a 45-hour overview of the PLS Examination utilizing group discussions, formal instruction, and materials created spe-

cifically for the PLS Certification Program. It is designed to help prepare those students seeking the PLS designation for the PLS Certification Exam. Special fee. (45 contact hrs.)

Pharmacy Technician

PTN0003

Introduction to Pharmacy Practice and Medical Terminology

3 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. Prerequisite: HSC 0003; Corequisite: PTN 0006. (90 contact hrs.)

PTN0004

Pharmacy Practitioner Applications

3 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. Special fee. (90 contact hrs.)

PTN0006

Pharmacy Calculations

3 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. (90 contact hrs.)

PTN0021

Drug Classifications

3 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. (90 contact hrs.)

PTN0041

Pharmacy Technician Hospital Field Experience

10 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, and 0021; Corequisite: PTN 0049. (300 contact hrs.)

PTN0049

Pharmacy Technician Retail Store Field Experience

10 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, and 0021; Corequisite: PTN 0041. (300 contact hrs.)

Photography

PGY0296

Electronic Workshop

4 credits

This course is designed for the experienced electronic publisher, graphic designer or graphic arts person who wishes to integrate black and white and color photography into their page layouts or paint programs. It will provide the basics of desktop scanning, retouching and color correcting. Special fee. (120 contact hrs.)

Practical Nursing

HCP0107C

Articulated Nursing Assistant Clinic

1.30 credits

This course provides the clinical and hands-on experience that are an integral part of the Articulated Nursing Assistant course. Students will learn patient care skills associated with a nursing assistant that include physical comfort a safety function, personal care, and infection control. Prerequisite: HSC 0003; corequisites: HCP 0123, 0123L, PRN0067, 0067L. (1.3 contact hrs.)

HCP0123

Articulated Nursing Assistant Lecture

0.07 credits

This course provides the theoretical knowledge necessary for actualization of the role of the articulated nursing assistant. Students will learn interpersonal skills, medical terminology, legal and ethical responsibilities, safe and efficient work, gerontology, nutrition, pet-facilitated therapy, health and safety including Cardio-pulmonary Resuscitation (CPR) - heart saver level, and employability skills. Prerequisite: HSC0003; corequisites: HCP 0123L, 0107C, PRN 0067, 0067L. (21 contact hrs.)

HCP0123L

Articulated Nursing Assistant Laboratory

0.50 credits

This course provides the laboratory activities/skills and hands-on experiences that are an integral part of the Articulated Nursing Assistant course. Students will learn the use of safety procedures, tools, equipment, materials, and processes related to the articulated nursing assistant. Prerequisites: HSC0003; corequisites: HCP 0123, 0107C, PRN 0067, 0067L. (15 contact hrs.)

PRN0067

Practical Nursing 1 Lecture

5.50 credits

This course provides the theoretical founda-

tion knowledge necessary for actualization of the role of the Practical Nurse. Students will learn the anatomy and physiology of the human body, human growth and development, principles of nutrition, and an introduction to Nursing. Prerequisite: HSC 0003; corequisite: HCP 0123, 0123L, 0107C, PRN 0067L. (165 contact hrs.)

PRN0067L

Practical Nursing 1 Laboratory

0.05 credits

This course provides the foundation laboratory activities/skills and hands on experiences that are an integral part of the Practical Nursing course. Students will learn aseptic technique, patient physical comfort and safety measures, and foundation skills for practical nursing. Prerequisite: HSC 0003; corequisite: HCP 0123, 0123L, 0107C and PRN 0067. (15 contact hrs.)

PRN0068C

Practical Nursing 1 Clinic

3.60 credits

This course provides the foundation clinical hands-on experiences that are an integral part of the Practical Nursing course. Students will learn verbal and communication skills, application of aseptic technique, application of physical comfort and safety functions, and principles of nutrition. Prerequisites: HSC 0003, HCP 0123, 0123L, 0107C, 0067,0067L; corequisite: PRN 0205, 0205L. (108 contact hrs.)

PRN0124

Practical Nursing 3 Lecture

3.20 credits

This course provides the theoretical specialty knowledge necessary for actualization of the role of the Practical Nurse. Students will learn patient care skills associated with maternity/newborn, pediatrics, mental health, transitional and employability. Prerequisites: HSC 0003, HCP 0123, 0123L, 0107C, PRN 0067, 0067L, 0068C, 0205, 0205L; corequisites: PRN 0302C, 0124L. (96 contact hrs.)

PRN0124L

Practical Nursing 3 Laboratory

0.50 credits

This course provides the specialty laboratory activities/skills and hands on experiences that are an integral part of the Practical Nursing course. Students will learn activities that include instruction in maternity/newborn, pediatrics and processes related to the specialties skills necessary for actualization of the role of the Practical Nurse. Prerequisites: HSC0003, HCP 0123, 0123L, 0107C, PRN0068C, 0067, 0067L, 0205, 0205L; corequisites: PRN0302C, 0124. (15 contact hrs.)

PRN0125C

Practical Nursing 3 Clinic

11.20 credits

This course provides the specialty clinical hands-on experiences that are an integral part of the Practical Nursing course. Students will learn the practical application in the patient care area for Maternity/Newborn, Pediatrics, and Mental Health. Prerequisites: HSC 0003,

HCP 0123, 0123L, 0107C, 0067, 0067L, PRN 0068C, 0205, 0205L, 0302C, 0124, 0124L. (336 contact hrs.)

PRN0205

Practical Nursing 2 Lecture 7.10 credits
This course provides the theoretical fundamental knowledge necessary for actualization of the role of the Practical Nurse. Students will learn nursing procedures, administration of medications, pre- and post-operative care, and medical & surgical care. Prerequisites: HSC 0003, HCP 0123, 0123L, 0107C, PRN 0067L; corequisites: PRN 0068C, PRN 0205L. (213 contact hrs.)

PRN0205L

Practical Nursing 2

Laboratory 1.90 credits
This course provides the fundamental laboratory activities/skills and hands on experiences that are an integral part of the Practical Nursing Course. Students will learn activities that include instruction in performance of advanced nursing procedures administration of medications, pre and postoperative procedures and disease and disorder procedures and processes related to the fundamental skills necessary for actualization of the role of the Practical Nurse. Prerequisites: HSC 0003, HCP 0123, 0123L, 0107C, PRN 0067, 0067L; corequisites: PRN 0068C, 0205. (57 contact hrs.)

PRN0302C

Practical Nursing 2 Clinic 6 credits

This course provides the foundation clinical hands-on experiences that are an integral part of the Practical Nursing course. Students will learn the practical application of nursing procedures, medication administration, pre- and post-operative care, and care for the medical and surgical patient. Prerequisites: HSC 0003, HCP 0123, 0107C, PRN 0067, 0067L, 0068C, 0205; corequisites: PRN 0124, 0124L. (180 contact hrs.)

Real Estate

REE0035

Mathematics for Real Estate 1.50 credits
This course is designed to help the individual become more proficient with basic mathematics as they are used in the real estate business. Topics include a review of basics, percent's in real estate, mortgage math, real estate taxes, legal descriptions and area problems, math in real estate appraising and prorating for closing statements. Special fee. (45 contact hrs.)

REE0044

Real Estate Sales 2.10 credits

Principles & Practices 1 is the beginning course for a student wishing to enter the Real Estate business and receive a Real Estate License. This is a survey course that looks into the legal relationship between sales-

man and client, salesman and customer, and salesman and broker. It is a study of many of the mechanical principles of the Real Estate business such as deeds, surveys, financing and appraising. Special fee. (63 contact hrs.)

REE0301

Real Estate Post-Licensing Brokers 2 1 credit

This course is the investment portion (part 2) of the State required Post-Licensing for Brokers. The objective of the course is to provide the licensee with advanced knowledge of Real Estate investment and finance. Prerequisite: REE 0801. Special fee. (30 contact hrs.)

REE0801

Real Estate Post-Licensing Brokers 1 1 credit

This is the management portion (Part 1) of the State required Post-Licensing course for Real Estate Brokers. The objective is to provide the licensed Brokers with advanced knowledge of the management and operation of a brokerage office. Special fee. (30 contact hrs.)

REE0802

Broker Estate Broker's License Exam Preparation 2.50 credits

The purpose of this course is to provide the licensed Real Estate Salesperson with the fundamental knowledge required by the Florida Real Estate Commission to successfully complete the State License Examination for the Real Estate brokers. The content includes appraising, finance, investment and much more. Special fee. (75 contact hrs.)

Risk Management And Insurance

RMI0003

Principles of Insurance 2.50 credits

This course introduces the participants to the nature of risk, the institutions that provide insurance, contracts dealing with the property, liability, life and accident insurance, and government regulations. Special fee. (75 contact hrs.)

RMI0092

40-Hour Health Agency License Preparation 1.50 credits

This is a state-required course designed to prepare the student for the 40-Hour Health Agent License exam. Topics covered are related to the selling of health insurance only for a licensed insurance agent. Special fee. (45 contact hrs.)

RMI0234

Investment Vehicles 1 credit

This course is affiliated with the American College of Life Insurance at Bryn Mawr. Topics include the role and scope of investments, security markets, investment strategies, financial statements, common stock analysis, bonds, options, futures and tax considerations. Special fee. (30 contact hrs.)

RMI0642

Repeat Life and Health Agent 1.50 credits

This course is offered for students who did not pass the end-of-course exam, but would like to repeat the course for the purpose of passing the exam, after which, the student will qualify to take the State exam. Special fee. (45 contact hrs.)

Student Life Skills

SLS0270

Practical Leadership Skills 1 credit

This course employs a small-group approach to improve leadership skills of individuals training for supervisory positions. Students will improve in problem identification and resolution, planning, and effective methods of communication with subordinates and co-workers. Special fee. (30 contact hrs.)

SLS0341

Employability Skills 1 credit

This course teaches the student the skills necessary to conduct a successful job search and to be successful in a job requiring positive human relation skills. Clothing, behavior, personal presentation and interpersonal relations are covered. Special fee. (30 contact hrs.)

Surveying

SUR0001

Construction Survey 4 credits

This course focuses on the practice of surveying as related to the Building and Construction industry. This course includes a combination



of classroom and practical field problems with the tape, level and transit. Lab time is required. Special fee. (120 contact hours)

Transportation And Traffic Management

TRA0701

Transportation/Geographical Considerations 1 credit

This course will address the logistics for important export. Types of pallets, air and sea containers, railroad shipping and inland freight will be discussed. Cargo consolidation for air and sea transport will be addressed as well as types of insurance required. Evaluating service from brokers, forwarders, and steam lines will also be addressed. In addition, geographical concepts will be addressed with the relative location of regions and nations evaluated in terms of specific physical environments, political and economic trends, demography and utilization. Ports of entry and other geographical considerations related to trade will also be examined. Special fee. (30 contact hrs.)

Travel Industry Management

HMV0722

Sales in the Travel Industry 2.50 credits

A concentration on the behavioral relationships necessary for the successful closing of a sale. Covers personal appearance, verbal skills, attitudinal factors, telephone competencies, group presentation capabilities, customer service. Special fee. (75 contact hrs.)

HMV0950

Communications for the Travel Professional 2 credits

Communications for the Travel professional will help students develop their writing and speaking skills so that they can effectively and confidently communicate on the job. Special fee. (60 contact hrs.)

Vocational Preparatory

VPI0111

Vocational Preparatory

Reading 1-6 credits
This course is intended for the student who has tested in at a level on the Test for

Adult Basic Education (TABE) that requires some work to improve basic reading skills. Individualized work on a computer is prescribed to enable the student to test out at an appropriate level to be successful in a Vocational program. (30-180 contact hrs.)

VPI0211

Vocational Preparatory Mathematics 1-6 credits

This course is intended for the student who has tested in at a level on the (TABE) test that requires some work to improve basic math skills. Individualized work in a computer is prescribed to enable the student to test out at an appropriate level to be successful in a Vocational program. (30-180 contact hrs.)

VPI0311

Vocational Preparatory English 1-6 credits

This course is intended for the student who has tested in at a level on the (TABE) test that requires some work to improve basic language skills. Individualized work on a computer is prescribed to enable the student to test out at an appropriate level to be successful in a Vocational program. (30-180 contact hrs.)

Selected Studies

###947

Co-op Work Experience 2 3 credits

This course is 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. Prerequisites: Co-op Department approval and completion of 0948 Co-op Work Experience. 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. (30-90 contact hrs.)

###991

Selected Studies 3 credits

Designed to offer an in-depth treatment of special areas under the various occupational categories: it may be varied each term according to faculty and student planning. This offering is numbered 0991, with prefix of the subject area, in the department or discipline of study: Credits only apply to a Vocational Credit certificate. Prerequisite: Permission of the instructor and department chairperson. (30-150 contact hrs.)

###999

Diagnostic Medical Externship 3 credits

This course provides experience in a variety of vocational disciplines. The externship will be provided in an approved establishment within the identified discipline area. May be repeated for credit. (90 contact hrs.)



Educator Preparation Institute

EPI0001

Classroom Management 3 credits

This segment prepares the participant to generate and maintain a record keeping system, establish classroom policies and procedures, plan and conduct lessons in a variety of learning environments, create objective-based lesson plans, develop effective communication skills, create and administer various forms of assessment, integrate Sunshine State Standards into lesson development and apply the code of ethics and school law. (3 hr. lecture)

EPI0002

Instructional Strategies 3 credits

This segment prepares the participant to employ varied teaching strategies, utilize diverse styles on presentations, create questions that address all levels of the cognitive domain, create lesson plans including objectives, anticipatory set, practice and assessment, develop skills to manage individual and classroom behavior, accommodate exceptional students in the classroom, and research professional literature to seek best practices and hone the craft of effective instruction. (3 hr. lecture)

EPI0003

Technology 3 credits

This segment prepares the participant to develop a Web page, incorporate technology in the classroom, utilize curriculum integrating strategies, employ technology to accomplish instructional objectives, develop and adopt technology-based curriculum materials, and evaluate ethical issues related to the use of technology in the classroom. (3 hr. lecture)

EPI0004

The Teaching and Learning Process 3 credits

This segment provides the participant with an understanding of learning theories, student motivation and persistence, exceptionalities, standardized testing, critical thinking, multiple intelligences, and second language acquisition. (3 hr. lecture)

EPI0010

Foundations of Research-Based Practices in Reading 3 credits

This module provides substantive knowledge of language structure and function and cognition of phonemic awareness, phonics, fluency, vocabulary, and comprehension. It provides knowledge of the integration of the reading components. Instruction in this module is grounded in scientifically-based reading research as a mechanism to inform instructional practice. (3 hr. lecture)

EPI0020

Professional Foundations 2 credits

This module provides the foundation for becoming a productive member of the teaching profession. The participants will gain understanding of the organization and administration of the public school, the laws gov-

erning teachers, the code of ethics, and the purpose of schools. This module develops a professional perspective and creates a sense of grounding in the profession of teaching. Corequisite: EPI 0940. (2 hr. lecture)

EPI0030

Diversity 2 credits

This module provides the participant with an understanding of the variety of backgrounds and cultures that may be found in a typical classroom. Field experiences give a broader view of the social aspects of diversity and cause the participant to reevaluate personal beliefs and prejudices that may adversely affect the learning process. Corequisite: EPI 0945. (2 hr. lecture)

EPI0940

Field Experience 1 credit

Participants will complete a series of experiences designed to give prospective teachers

a perspective on effective learning environments, educational strategies, and classroom management principles. Cohorts will meet together to discuss these experiences and to relate them to their observations of students as well as student behaviors and interactions in the schools. Corequisite: EPI 0020. (1 hr. lecture)

EPI0945

Field Experience 1 credit

Participants will complete a series of experiences designed to give prospective teachers a perspective on effective learning environments, educational strategies, and classroom management principles. Cohorts will meet together to discuss these experiences and to relate them to their observations of students as well as student behaviors and interactions in schools. Corequisite: EPI 0030. (1 hr. lecture)





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HELEN AGUIRRE FERRÉ is an award-winning, bilingual journalist in both print and broadcast media. With more than two decades of reporting, she is the Opinion Page Editor of *Diario Las Américas*, an independent, family-owned Spanish-language newspaper founded in Miami in 1953. Her commentary also extends to a Sunday column in *Diario Las Américas*, covering current, national and international affairs.

In the broadcast arena, Aguirre Ferré is the moderator of the weekly WPBT public affairs series *Issues*, reaching television audiences from the Treasure Coast to the Florida Keys. She also co-hosts "Yo Cuento" for Radio Cadena Univision and provides regular political analysis on WQBA radio's highest-rated afternoon show, "Prohibido Callarse."

Committed to community service, particularly in education, she is the first woman to chair the Board of Trustees of Miami Dade College, the largest community college in the country, and serves on the board of directors of the Association of Governing Boards of Universities and Colleges (AGB) in the United States, and the Council of Board Chairs of the AGB. Additionally, she is a member of the board of WPBT Channel 2, a PBS affiliate in Miami; a member of the Florida Chapter of the International Women's Forum; a national member of the Council on Foreign Relations; a director of the Inter American Democracy Institute; an advisory board member of the New Hampshire Institute of Politics, the Angels of Mercy, Mercy Hospital, The Mater Center, and the American Nicaraguan Foundation.

Through all her professional and community engagements, Aguirre Ferré has received many awards, including: Alumni of Distinction in Journalism Barry University 2009; Honorary Doctorate Degree in Journalism from Saint Anselm College 2008; the Chairman's Award of the South Florida Chapter of the American Red Cross 2007; Women's History Coalition Women of Impact Award 2007; Award of Distinction American Nicaraguan Foundation 2006; Distinguished Woman Professional Cuban Woman's Club 2006; CAMACOL Woman Business Professional 2006; Distinguished Alumni Archbishop Curley Notre Dame Academy 2005; Barry University Outstanding Alumni of the Year Award 2000; Dynamic Woman's Award American Cancer Society; and is named on the Professionals of Hispanic Media 100 list.

Aguirre Ferré co-founded Operation Saving Lives, which was a humanitarian task force responsible for sending money, medicine, food and clothing to victims of Hurricane Mitch in Central America. She was also appointed to the Florida State Committee of Higher Education Access Task Force in 2005 and the Florida Energy 2020 Commission, among others.

Aguirre Ferré holds a Bachelor of Arts in Political Science from Barry University and a master's in Interamerican Studies from the University of Miami, Florida. She is married and has three children.

ARMANDO J. BUCELO JR. is an attorney in private practice. His firm, the Law Offices of Armando J. Bucelo, Jr., has been based in the Coral Gables area since 1979.

For more than twenty years, he has served as special counsel to the Code Enforcement Board of the City of Miami, and special advisor to the City of Miami.

Bucelo has served as national chairman for the Cuban-American National Republican Senatorial Committee, and committeeman for the Republican Party. He was appointed by President George W. Bush to serve as chairman of the Board of Directors of the Securities Investor Protection Corporation, one of the administration's highest appointments made to a Hispanic. He was also appointed as a member of the Board of Directors of the National Housing Development Corporation, one of the most prestigious national institutions dealing with affordable housing. Under President Bush, he was the first Hispanic and first Floridian selected as a member of the Board of Directors of the Federal Home Loan Mortgage Corporation (Freddie Mac).

He has been involved in a myriad of community activities, including serving on the Board of Directors of the YMCA International, and the American Red Cross. Bucelo is a past President of both the Downtown Miami Business Association and the Cuban-American Bar Association.

He has been honored as one of the 100 Most Influential Hispanics on numerous occasions and has received proclamations from the U.S. House and Senate, the Florida House and Senate, and the cities of Coral Gables, Miami, Hialeah, West Miami, Sweetwater, and Miami-Dade County. Bucelo earned his Juris Doctor and Bachelor of Arts degrees from the University of Miami and is an alumnus of Miami Dade College.

MARILI CANCIO is an attorney specializing in transactional matters involving corporate, international, real estate, trademarks, and financial affairs. She is the managing partner of Cancio Johnson & Echarte PL. Previously, she served as a shareholder at Fowler White Burnett PA and senior counsel at Holland & Knight LLP. The daughter of Cuban exiles, Cancio is very involved in the community. She has served as chair of the Hispanic Affairs Advisory Board Miami-Dade County, as a member of the Community Relations Board of Miami-Dade County, trustee of Vizcaya Museum and Gardens, member of

Orange County's Women's and Minority's Business Certification Board, member of the Republican Executive Committee for Miami-Dade County, member of the Florida Federation of Republican Women and in other important organizations. In addition, she has served as Pro Bono Counsel for La Liga Contra el Cancer and as a past member of other charity boards and committees. Cancio was born in Miami Beach, but moved to Brazil as a young child attending Portuguese-speaking schools and graduating from high school in Rio de Janeiro. Marili moved back to the U.S. to attend Arizona State University. She later completed her bachelor's degree at Eastern College in Pennsylvania. She also completed classes at Miami Dade College. She obtained her law degree from Temple University. She most enjoys spending time with her family traveling, boating and playing tennis. She is married, has two adult children and a granddaughter.

ARMANDO J. OLIVERA is the chief executive officer and president of Florida Power & Light Company (FPL), a subsidiary of NextEra Energy, Inc. and one of the largest investor-owned electric utilities in the nation. He was appointed to his current position in 2003 and has served FPL for nearly four decades. As CEO and president of FPL, Trustee Olivera has managed a multiyear, multibillion dollar capital investment program that includes expansion of nuclear capacity, a new natural gas, combined-cycle power plant that is the most efficient of its kind in the nation, and three new solar energy centers that have made Florida No. 2 in the nation in solar power. Prior to being named to his current role, he was senior vice president of FPL's power systems business unit. Trustee Olivera is also a director of AGI Resources Inc., a member of the board and a past chairman of the Florida Reliability Coordinating Council, as well as a member of the board of Enterprise Florida and the Florida Council of 100. Trustee Olivera is a member of the Cornell University Board of Trustees, where he received a bachelor's degree in electrical engineering, and he holds a Master of Business Administration from the University of Miami.

BENJAMÍN LEÓN III is president and COO of Leon Medical Centers, a managed health care system offering superior comprehensive services to the residents of Miami-Dade County.

León has served at the helm of the organization since 1996, guiding the delivery of primary care, outpatient services and various specialty services to Medicare members. He began his career as a customer service representative for Clínica Cubana,

which his family opened in the 1960s to satisfy the health care needs of South Florida's growing Hispanic population.

León serves on the board of the Latin American Chamber of Commerce (CAMACOL) and is involved in numerous philanthropic organizations, such as the American Diabetes Association and the American Cancer Society.

He holds a bachelor's degree in organizational leadership from St. Thomas University.

JOSE K. FUENTES is the principal for The Fuentes Rodriguez Consulting Group, a governmental affairs advisory firm representing both private and public sector clients on issues ranging from capital projects funding to the development of legislative affairs strategies. Community involvement is a top priority for Mr. Fuentes. As part of his civic and community endeavors, he presently serves on the executive board of United HomeCare Services; as an advisory member of the Miami-Dade County DERM Wetlands Advisory Task Force; and is a board member of City Year Miami. Additionally, he volunteers at the Greater Miami Chamber of Commerce as a member of its Legislative Policy Council and serves as the political outreach chair of its Governmental Affairs Group. He is also a member of the City of Miami Waterfront Advisory Board; the Mayors International Council (City of Miami); and the Miami-Dade County Climate Change Advisory Task Force, where he is the chairman of the Sub Committee on Transportation & Greenhouse Gas. Prior to founding The Fuentes Rodriguez Consulting Group, he served as director of the South Florida Water Management District's Miami-Dade Regional Office; assistant to United States Senator Connie Mack; director of the

Office of the Speaker of the Florida House Representatives; legislative assistant to State Senator Rudy Garcia; and governmental/public affairs liaison for the Board of County Commissioners of Broward County. Trustee Fuentes is a proud Miami Dade College alumnus and earned his bachelor's degree from St. Thomas University.

MARIELENA A. VILLAMIL is the CEO, president and co-founder of the Washington Economics Group, Inc. (WEG), an economic, financial and educational consulting firm. She has led this well-respected organization since 1993 and has been an esteemed contributor to the South Florida community.

Prior to joining WEG, she worked for 17 years as a professor and associate dean at Miami Dade College. She has significant experience in governmental relations and in the education and training of multicultural and multilingual workforces.

Her community involvement is far reaching. Since June 2009, she has served as the chairman of the Board of the American Red Cross of Greater Miami and Keys, who awarded her the first Dr. Mario Villarreal International Leadership Award.

Presently, she serves on the South Florida Advisory Board of the Hispanic Scholarship Fund, on the National Board of the Cuban American National Council, and on the Board of the Coral Gables Community Foundation.

She also serves as the chair of both the Advisory Board of the South Florida Campus of the Sistema Universitario Ana G. Mendez and the South Florida Humanitarian Network for Cuba.

Villamil holds a Bachelor of Arts in Spanish and English from St. Mary's Dominican College and a Master of Arts in Spanish from Middlebury College.

An American by choice, **DR. EDUARDO PADRÓN** has served as president of Miami Dade College (MDC) since 1995. In 2009, he was named one of "The 10 Best College Presidents" in America by *TIME* magazine and "Floridian of the Year" by *Florida Trend* magazine. During his career, he has been selected to serve on posts of national prominence by five American presidents. Dr. Padrón's pace-setting work at MDC has been hailed as a model of innovation in higher education. He is credited with engineering a culture of success that has produced impressive results in student access, retention, graduation and overall achievement. MDC enrolls and graduates more minorities than any other institution in the country, including the largest numbers of Hispanics and African-Americans.

Dr. Padrón's energetic leadership extends to many of the nation's leading organizations.

He was recently appointed to the Advisory Commission of the National Museum of the American Latino and serves on the boards of the Association of American Colleges and Universities; American Council on Education; Carnegie Foundation for the Advancement of Teaching; Business/Higher Education Forum; League for Innovation in the Community College; RC 2020; the Collins Center for Public Policy; and the International Association of University Presidents.

Under Dr. Padrón's direction, MDC has received numerous accolades, including recent honors from the College Board, the *Chronicle of Higher Education*, the Florida Department of Education and Florida Campus Compact. Dr. Padrón holds a doctorate in economics from the University of Florida and is an MDC alumnus.



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Marili Cancio



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Marielena A. Villamil



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- María Johnston
Regional Director
External Affairs Department
AT&T
- Beatrice Louissaint, *Secretary*
President & CEO
Southern Florida Minority Supplier
Development Council
- Eduardo J. Padrón
President
Miami Dade College
- Jorge A. Plasencia, *Vice Chair*
Chairman & CEO
República
- Alfredo Salas
President & CEO
Koning Restaurants International LC
- Penny Shaffer,
Market President of South Florida
Blue Cross Blue Shield of Florida
- José A. Vicente
President, Wolfson Campus
Miami Dade College
- Alexandra Villoch
Senior Vice President
Advertising and Marketing
The Miami Herald Media Co.
- Louis Wolfson III
Founding Partner
Pinnacle Housing Group and PHG Builders

- MILLER, JOHN M., (1969-1987), B.S., M.Ed.
MILLER, MARY R., (1973-1991), B.A., M.Ed.
MILLS, QUILVIE G., (1970-1990), B.S., M.S.
MINDLIN, LEO, (1967-1987), B.A., M.A.
MIRON, STANLEY S., (1966-1996), B.A., M.A.
MISTRY, FIROZ R., (1970-1991), M.S.
MORGAN, EVELYN B., (1974-1996), B.S.N., M.S., Ed.D.
MORRIS, JOHN, (1967-1993), B.S., M.S.
MUÑOZ, GERMAN, (1976-2011), B.S., M.A., Ph.D.
MURRAY, MARCIA D., (1969-1988), B.A., M.A., M.F.A.
NAGLE, WILLIAM D., (1964-1995), B.A., M.A.
NAPOLI JR, VINCENT R., (1968-1999), B.A., M.A.
NEYENDORF, DORIS M., (1962-1981), B.S., M.A.
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.
OCHS, ROBERT P., (1964-1996), A.A., B.Ed., M.Ed.
OCONNOR, DOROTHY B., (1974-1992), B.S., M.Ed.,
Ed.D.
OLSON, JOSEPH L., (1963-1985), B.A., M.Ed.
ORSELL, WALLACE H., (1967-1993), B.S., M.S., Ph.D.
OSSIP, BARBARA A., (1964-1996), A.A., B.A., M.A.,
Ed.D.
OZAN, MAHMUT E., (1963-1993), B.A., M.Ed.
PALOW, WILLIAM P., (1969-2003), B.S., M.Ed., Ed.D.
PARRAGA, CHARLOTTE N., (1965-1985), B.A., M.Ed.,
Ph.D.
PATTERSON, ROBERT K., (1969-1993), B.S., M.S.,
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PÉREZ-CAPOTE, JUAN M., (1977-1999), B.A., M.A.
PERDUE, BENNIE L., (1974-2009), A.A., B.A., M.S.
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.
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RICH, JANET C., (1967-1998), B.A., M.S., Ph.D.
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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.,
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SANDOVAL, MERCEDES C., (1967-2003), B.A., M.A.,
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SAPPHIRE, 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.
SCHULTZ, SANDRA, (1978-2011), B.A., M.S., Ph.D.
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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 E., (1966-1996), B.A., L.L.D.
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ZUCKERMAN, CLAIRE S., (1968-1993), B.B.A., M.A.,
M.S.
ZUCKERMAN, IRVING H., (1967-1992), B.A., L.L.M.,
M.A., J.D.

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 state-approved advanced specialized programs designed for students who already have an Associate in Science degree and wish to supplement their degree.

Basic Skills Assessment: A test that enables the College to identify the student's academic strengths and weaknesses in reading, writing, and math skills to be used to provide advisement and

placement in courses. See Computerized Placement Test (CPT).

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 three-credit 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 state-approved 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 College-Level 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 (non-credit), 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 non-credit 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, test scores 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 16-week terms and six credits or more in the six-week terms. Credits taken in a 12-week term (summer A and summer B) count as half value in each six-week term. Credits enrolled for audit or by departmental examination do not count in computation of full-time status.

In specialized circumstances, the College may define full-time student status as less than the above. This special College-defined status would occur only in unusual circumstances related to the College's Standards of Academic Progress program.

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 career-oriented degrees and certificates.

Prerequisite: An academic requirement, which must be met before a certain course can be taken.

Program: A curriculum or series of courses leading to a degree or certificate in a specific field of endeavor.

Registration: Process of enrolling for

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.

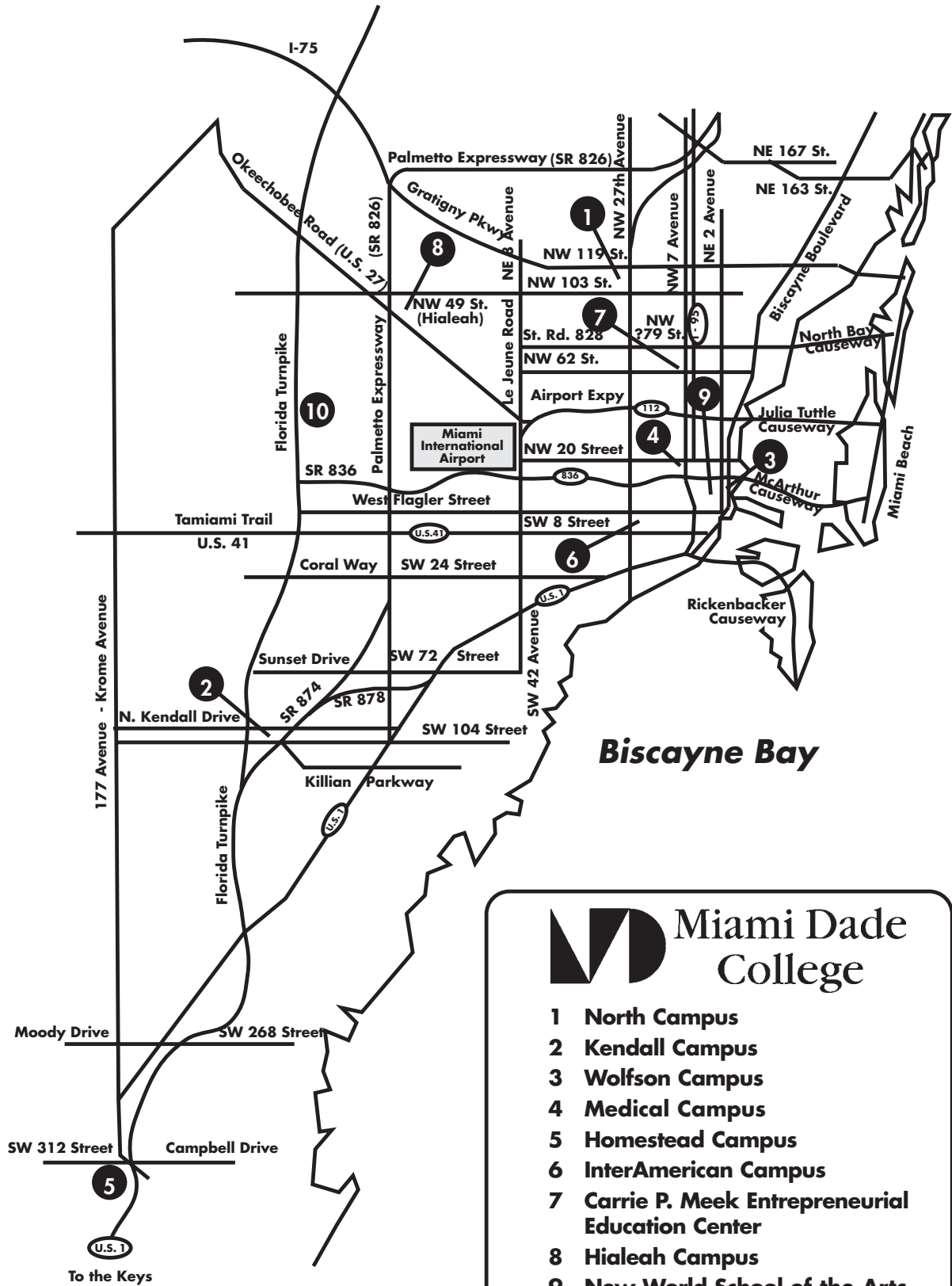
* Note: Some courses are scheduled for the combined summer A/summer B term of 12 weeks.

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.





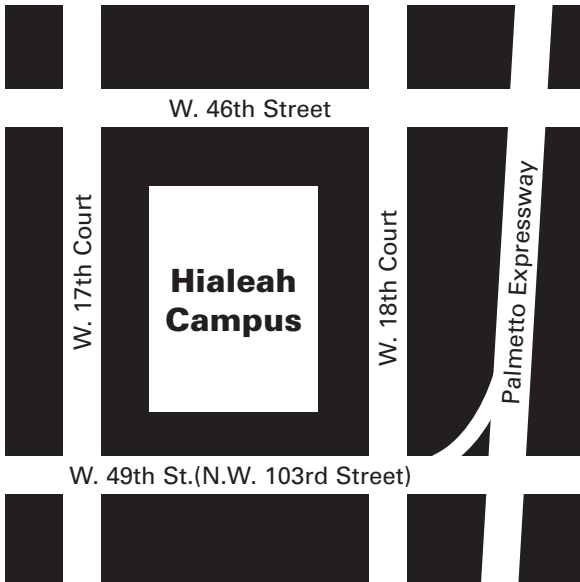


Miami Dade College

- 1 North Campus**
- 2 Kendall Campus**
- 3 Wolfson Campus**
- 4 Medical Campus**
- 5 Homestead Campus**
- 6 InterAmerican Campus**
- 7 Carrie P. Meek Entrepreneurial Education Center**
- 8 Hialeah Campus**
- 9 New World School of the Arts**
- 10 MDC-West**

Hialeah Campus

1776 W. 49th St.
Hialeah, FL 33012

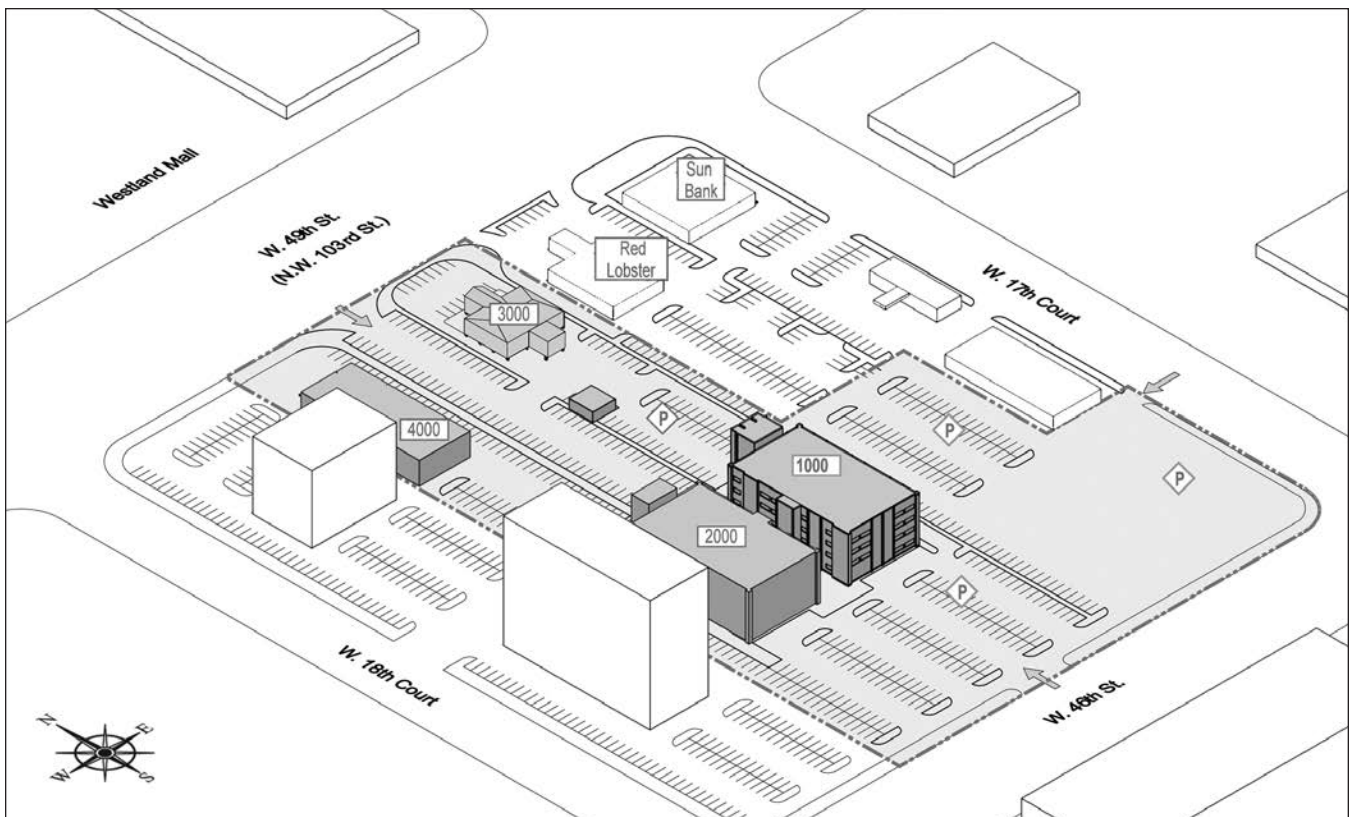


Important Phone Numbers

- 305-237-8775 • Admissions Information
- 305-237-8775 • Registration Information
- 305-237-8794 • Academic Advisement Information
- 305-237-8773 • Financial Aid Information
- 305-237-8701 • Campus Security
- 305-237-8791 • Testing Information

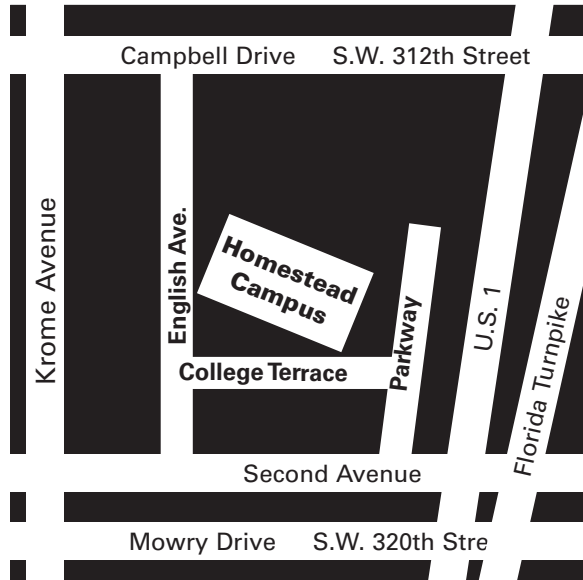
Key to Campus Locations

- 1000 Classrooms Building
- 2000 Hialeah Building 2
- 3000 Student Services Building
- 4000 Administration Building
- P Parking



Homestead Campus

500 College Terrace
Homestead, FL 33030

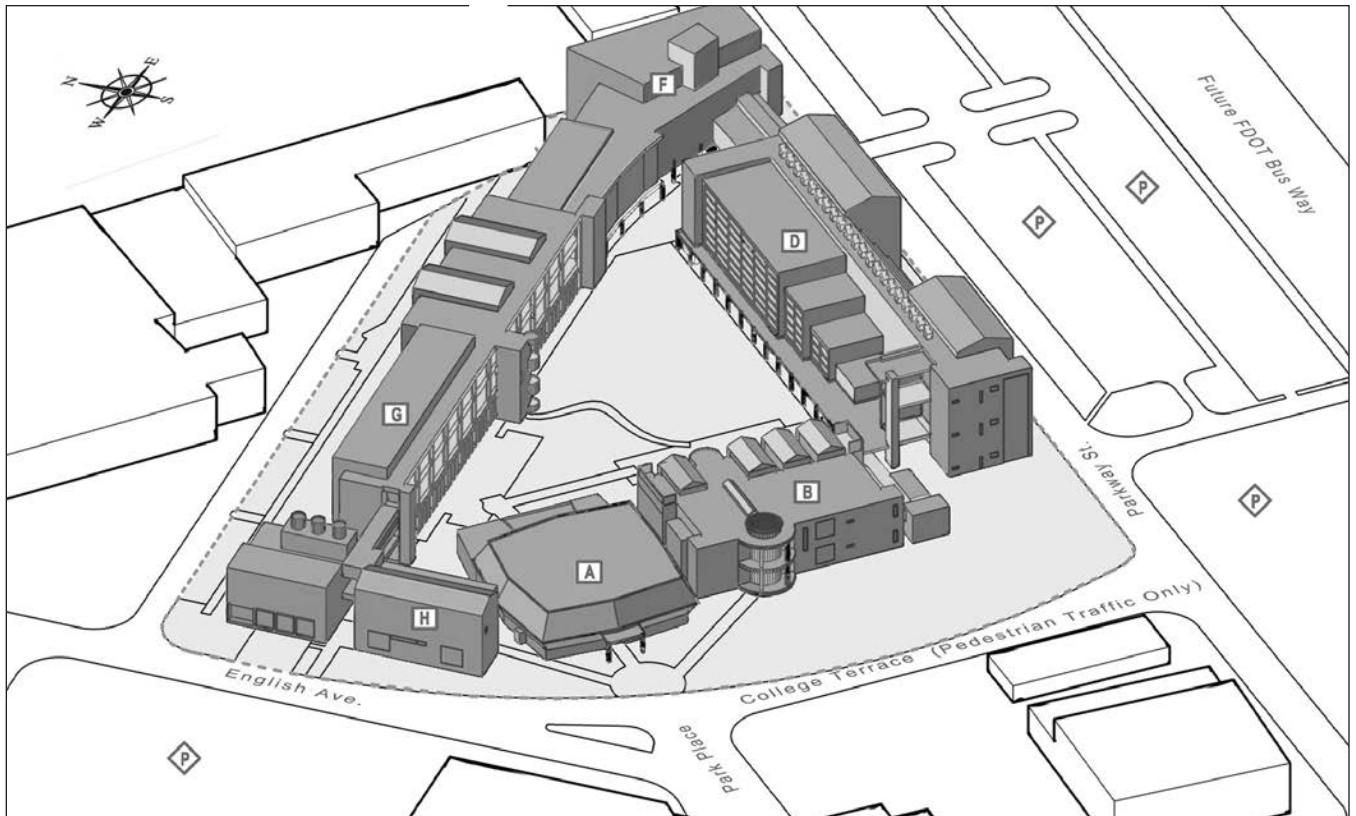


Important Phone Numbers

- 305-237-5555 • Admissions Information
- 305-237-5555 • Registration Information
- 305-237-5046 • Academic Advisement Information
- 305-237-5024 • Financial Aid Information
- 305-237-5100 • Campus Security
- 305-237-5105 • Testing Information

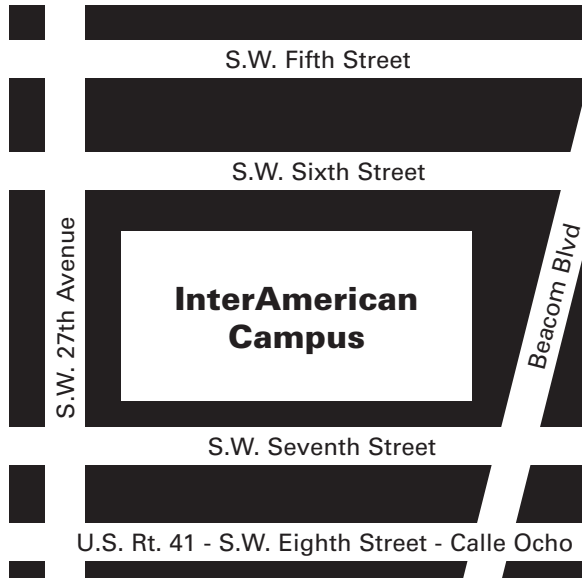
Key to Campus Locations

- A Registration and Student Services
- B Faculty/Administration
- D Information and Technology Center
- F Aviation Training Complex
- G Classrooms/Laboratories
- H Central Physical Plant
- P Visitors' Parking on Parkway Street



InterAmerican Campus

627 S.W. 27th Ave.
Miami, FL 33135

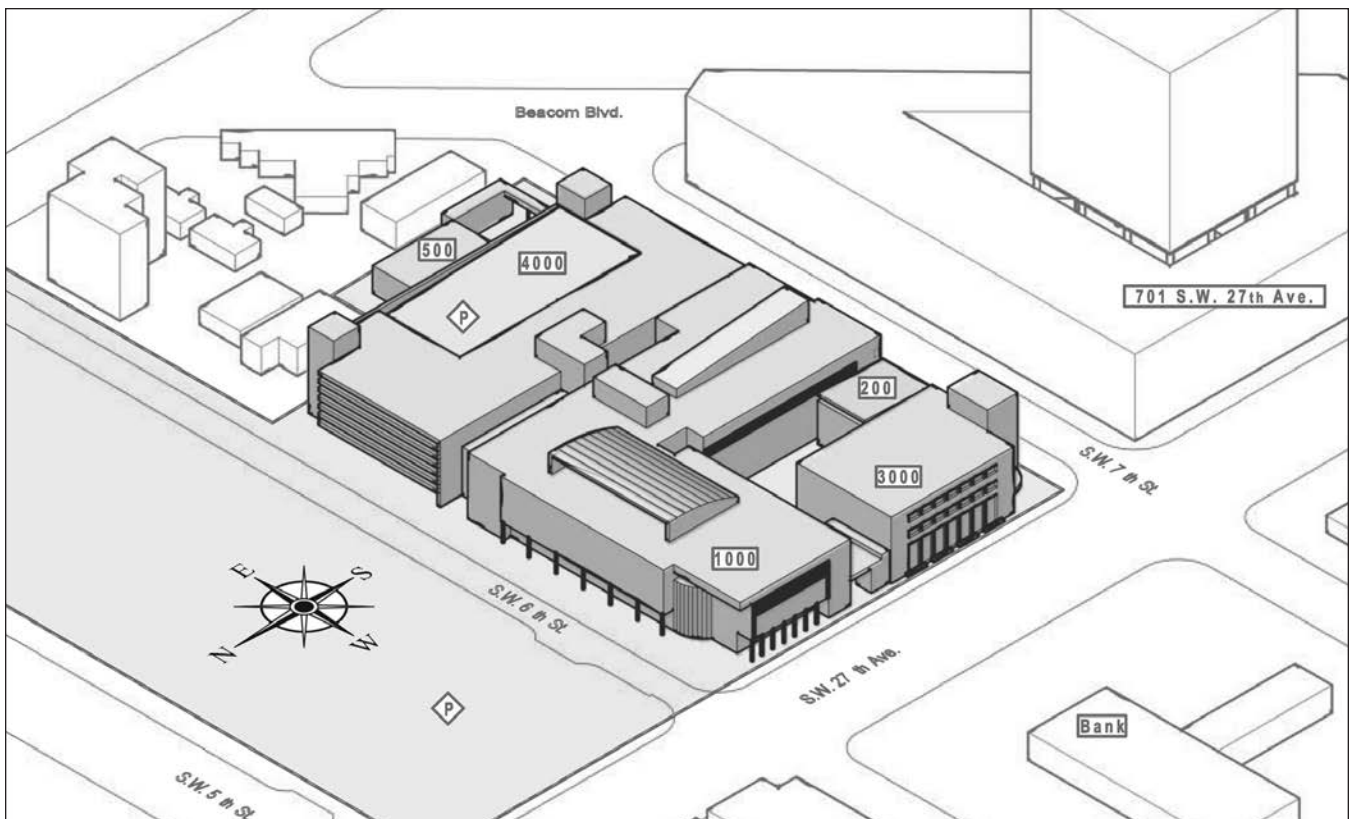


Important Phone Numbers

- 305-237-6052 • Admissions Information
- 305-237-6052 • Registration Information
- 305-237-6133 • Academic Advisement Information
- 305-237-6040 • Financial Aid Information
- 305-237-6100 • Campus Public Safety
- 305-237-6041 • Testing Information
- 305-237-6000 • Campus Main Number
- 305-237-6045 • Student Services Information

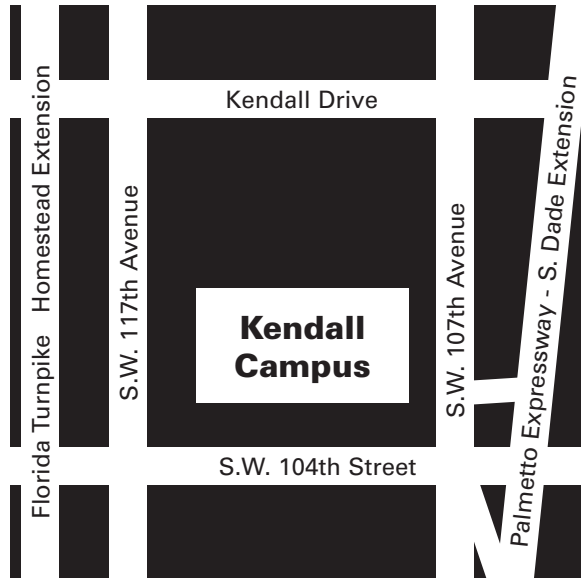
Key to Campus Locations

- 1000 Administrative & Faculty Offices, Classrooms, Student Services, Computer Courtyard and Other Labs
- 200 Instructional Building
- 3000 Classrooms and Laboratories
- 4000 Parking Structure
- 500 Service Building
- P Public Parking



Kendall Campus

11011 S.W. 104th St.
Miami, FL 33176

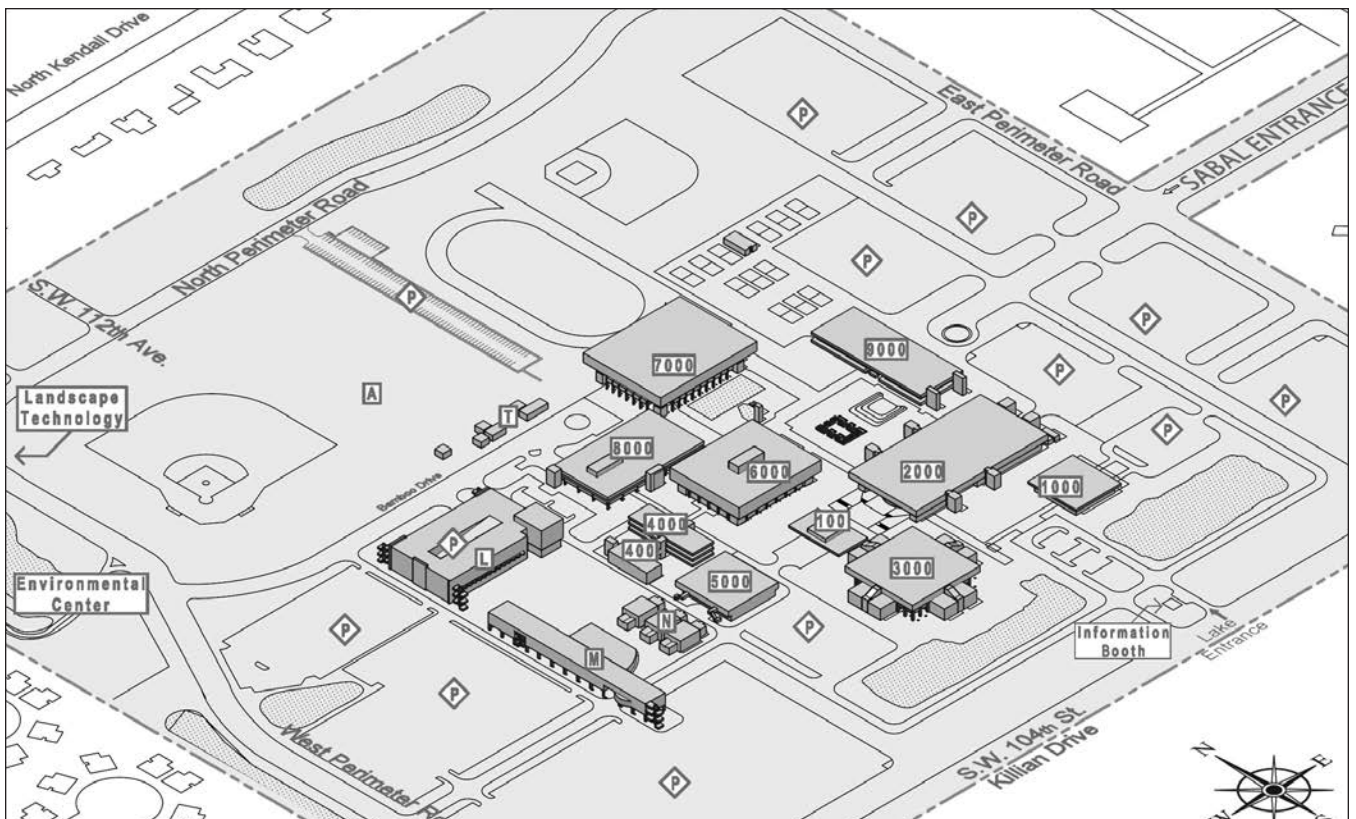


Important Phone Numbers

- 305-237-2222 • Admissions Information
- 305-237-2222 • Registration Information
- 305-237-2125 • Academic Advisement Information
- 305-237-2325 • Financial Aid Information
- 305-237-2100 • Campus Security
- 305-237-2341 • Testing Information
- 305-237-2161 • Community Education

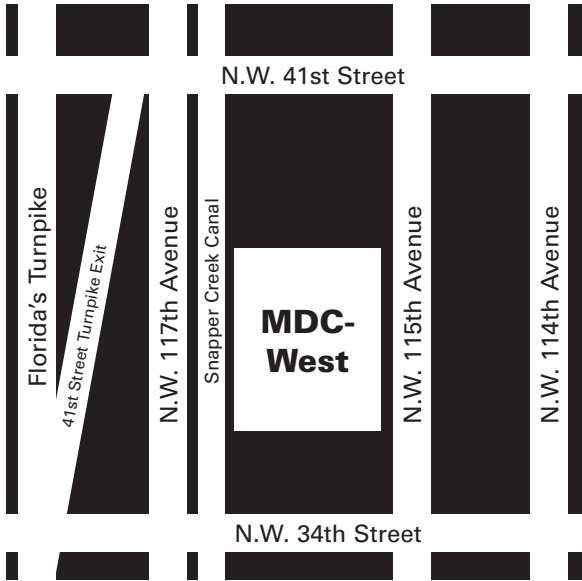
Key to Campus Locations

- 100 Student Life
- 1000 Peter Masiko Hall/Human Resources
- 2000 Niles Trammel Center/Library/Computer Courtyard
- 3000 Leonard Usina Hall/Student Services
- 4000 Daniel K. Gill Hall
- 5000 Fine Arts Building Annex/Public Safety
- 6000 Alfred L. McCarthy Hall
- 7000 Theodore R. Gibson Center/Gym
- 8000 Maria C. Hernandez Center/Bookstore, Cafeteria
- 9000 Jack Kassewitz Hall
- 400 Dante & Jeanne-Marie Fascell Conference Center
- A Athletic fields
- E Environmental Center
- L Parking Garage
- M Martin & Pat Fine Center for the Arts
- N Art Studio Building
- P Parking
- T Trailers



MDC-West

**3800 N.W. 115th Ave.
Doral, FL 33178**

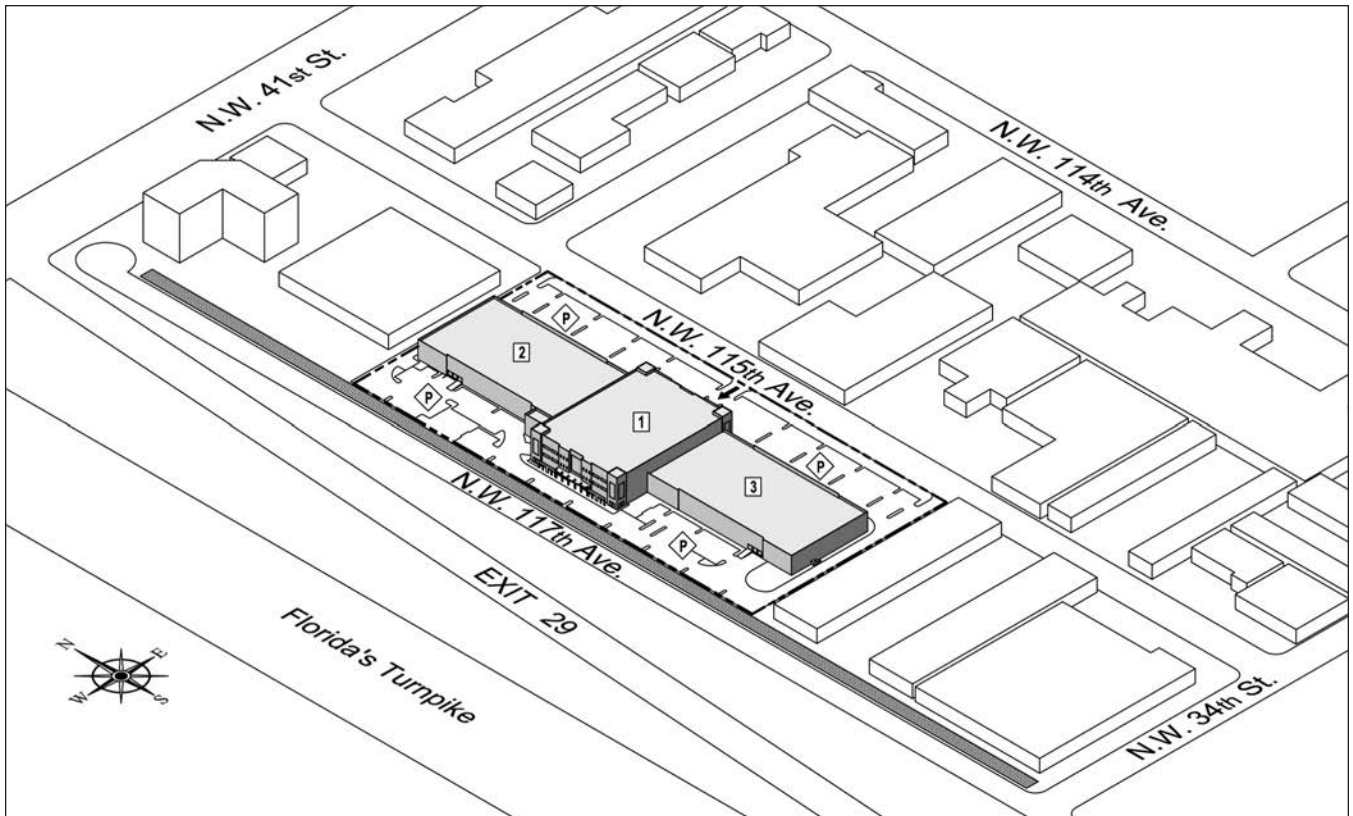


Important Phone Numbers

- 305-237-8900 • Admissions Information
- 305-237-8900 • Registration Information
- 305-237-8947 • Academic Advisement Information
- 305-237-8941 • Financial Aid Information
- 305-237-8100 • Campus Security
- 305-237-8912 • Testing Information

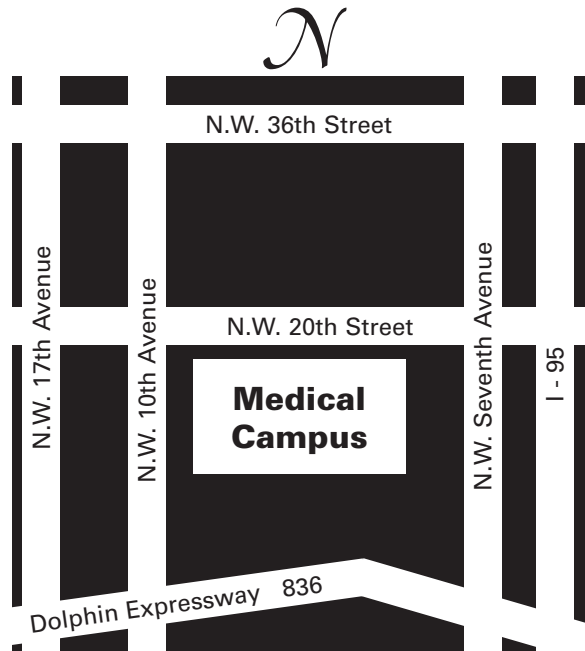
Key to Campus Locations

- 1 Central Building/Classrooms
- 2 Academic Support Center
- 3 South Wing (Parking Garage)
- P Parking



Medical Campus

950 N.W. 20th St.
Miami, FL 33127

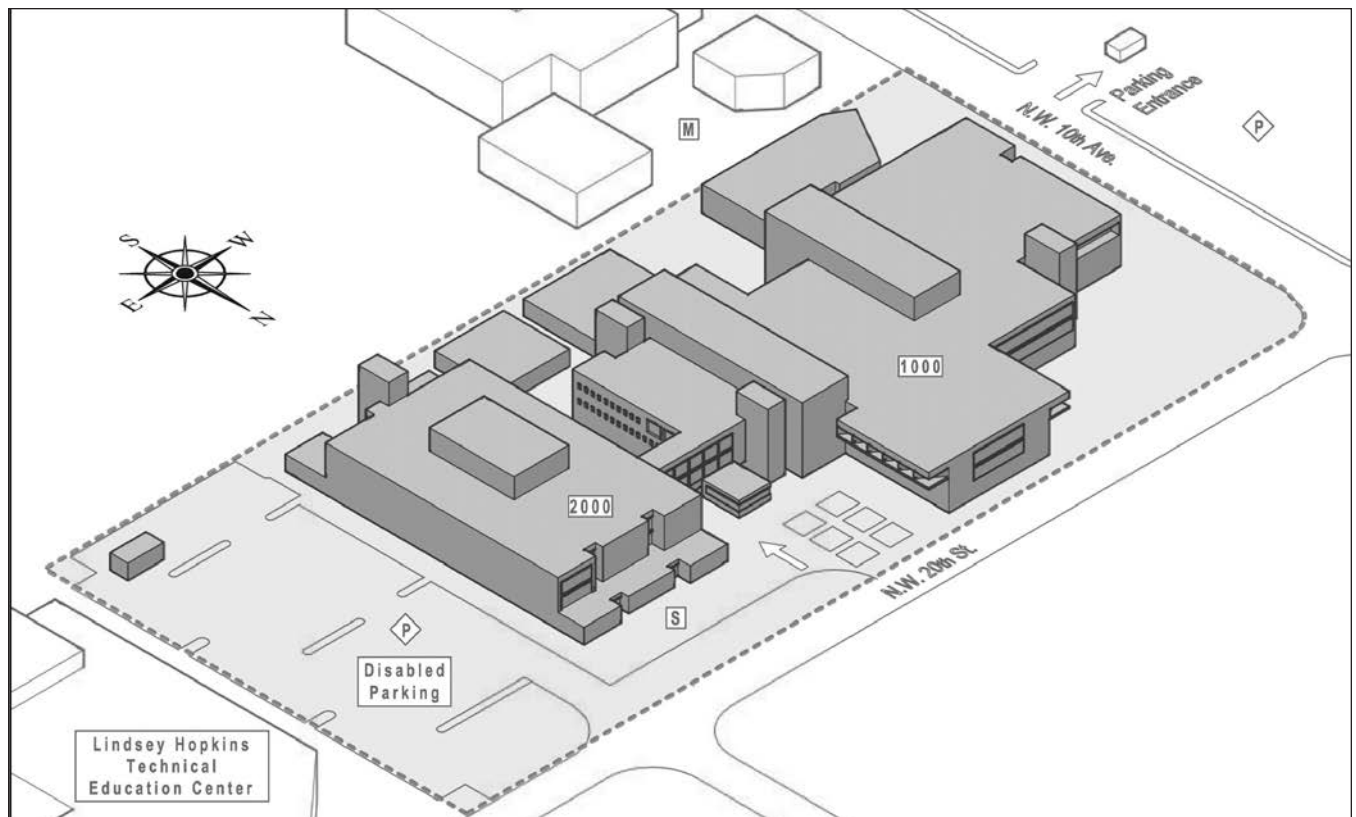


Important Phone Numbers

- 305-237-4444 • Admissions Information
- 305-237-4444 • Registration Information
- 305-237-4141 • Academic Advisement Information
- 305-237-4160 • Financial Aid Information
- 305-237-4141 • New Student Center
- 305-237-4100 • Campus Security
- 305-237-4275 • Testing Information

Key to Campus Locations

- 1000 Anna Brenner Meyers Hall
- 2000 Nursing/Allied Health
- P Parking
- M Medical Examiner Center - Dr. Joseph Davis Forensic Pathology
- S Shuttle Pick Up/Drop Off



North Campus

11380 N.W. 27th Ave.
Miami, FL 33167

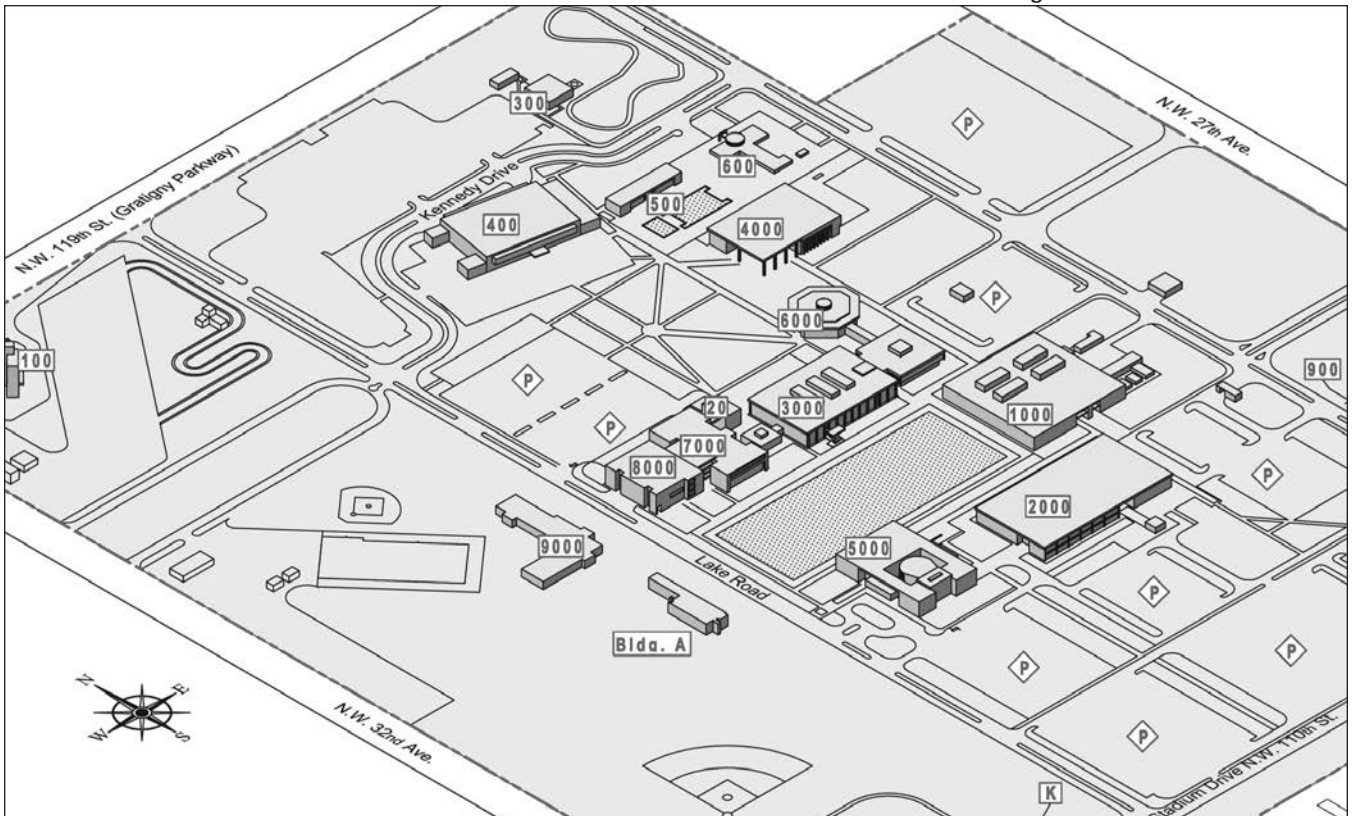


Important Phone Numbers

- 305-237-1149 • New Student Center
- 305-237-1111 • Admissions Information
- 305-237-1111 • Registration Information
- 305-237-1425 • Academic Advisement Information
- 305-237-1058 • Financial Aid Information
- 305-237-1100 • Campus Public Safety
- 305-237-1000 • Campus Main Number
- 305-237-1015 • Testing Information

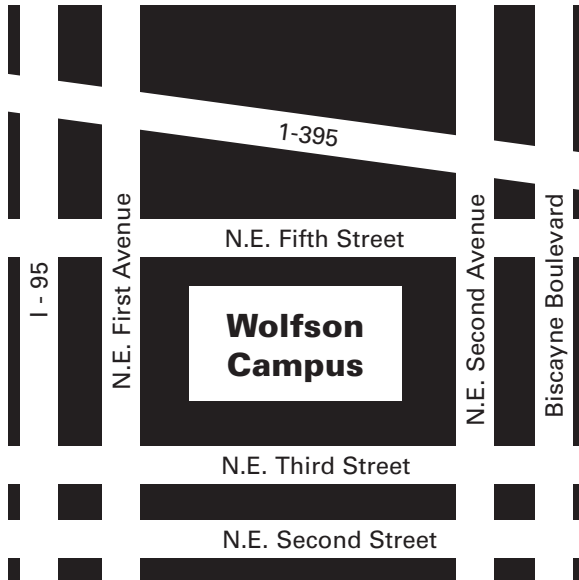
Key to Campus Locations

- 20 Environmental Science Technology Building
- 100 Chief Milton O. Bullock Fire Science Academy
- 300 Building 300
- 400 John F. Kennedy Health Center (Gym)
- 500 Aquatic Center
- 600 Pre-School Laboratory
- 1000 Paul R. Scott Hall - Registration and Student Services
- 2000 Mitchell Wolfson Learning Resources Hall/Library
- 3000 J. Nevelle McArthur Hall of Business and Technology
- 3000 Annex - W. L. Philbrick School of Funeral Sciences
- 4000 LeRoy Collins Campus Center/Student Life
- 5000 William D. Pawley Creative Arts Center and the William & Joan Lehman Theatre
- 6000 Developmental Studies Center
- 7000 Garth C. Reeves Hall
- 8000 School of Justice & Safety Administration
- 9000 School of Justice
- A Science Complex
- P Parking
- K Fire Science/Burn Building



Wolfson Campus

300 N.E. Second Ave.
Miami, FL 33132

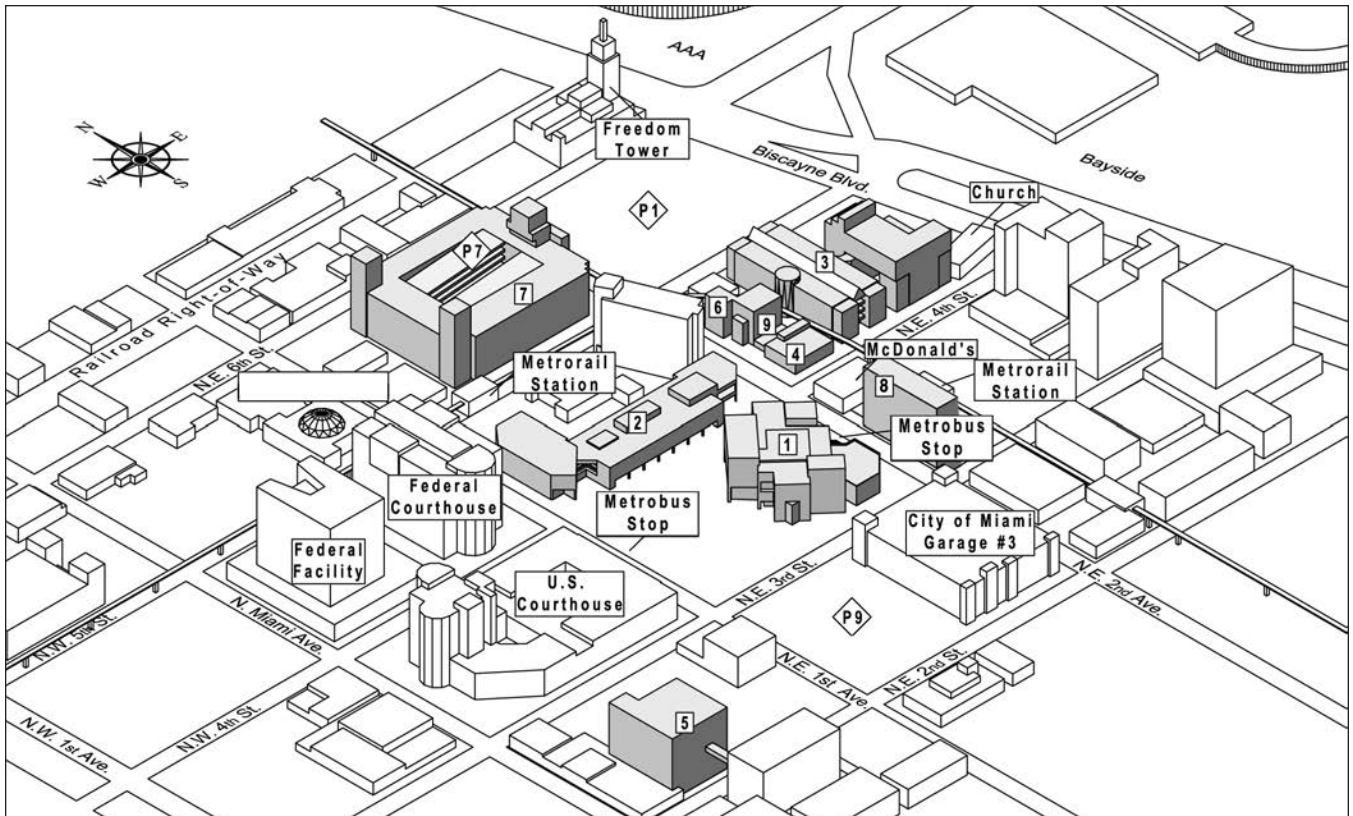


Important Phone Numbers

- 305-237-3076 • New Student Center
- 305-237-3131 • Admissions/Registration Information
- 305-237-3077 • Academic Advisement Information
- 305-237-3244 • Financial Aid Information
- 305-237-3011 • Testing Information
- 305-237-3100 • Campus Security
- 305-237-3358 • Career & Transfer Center
- 305-237-3358 • Job Placement
- 305-237-3072 • Access Services
- 305-237-3536 • Student Life

Key to Campus Locations

- 1 Wolfson Building 1
- 2 Wolfson Building 2
- 3 Wolfson Building 3
- 4 Wolfson Building 4
- 5 New World School of the Arts
- 6 Mail Room and Instructional Facilities
- 7 ETCOTA and Parking Garage
- 8 Miami Fire Station Number One
- 9 Miami Culinary Institute
- P1 Faculty/Staff Parking
- P7 Student/Faculty/Staff Parking
- P9 Student Faculty/Staff Parking



About Miami Dade College	6	College Credit Courses	126
Academic Calendar	3-5	College Level Academic Skills (CLAS)	33
Academic Definitions	274	Collegewide Schools	101
Academic Offerings	117	Commencement	51
Academic Programs	53	Confucius Institute	106
Academic Regulations	39	Confucius Institute	106
Accessing the Financial Aid Office	28	Continuous Enrollment for Graduation Requirements	47
Additional Agreements	52	Course Descriptions	126
Admission to Continuing Education Programs and Courses	24	Course Information	119
Admissions and Financial Aid	13	Course Load	41
Admissions Criteria	15	Course Offerings and Cross References	121
Advanced Technical Certificate Programs	50	Degree Audit	31
Advanced Technical Certificate Programs	75	Earth Ethics Institute	107
Advisement	31	Endowed Teaching Chairs	116
Aids Policy	35	Environmental Center	108
Allied Health/Nursing Programs	89	Excess Hours Advisory	25
Alternative Ways of Earning Credit through		Family Educational Rights and Privacy Act (FERPA)	36
Standardized Examinations	114	Fee Policy for Repeated Courses	25
Application Priority Deadline	27	Fees and Refunds	24
Apprenticeship Programs	105	Financial Aid Information	27
Articulation	51	Florida Pre-Paid Tuition Program	26
Associate in Arts Degree Pathways	59	Florida Residency	19
Associate in Science/Associate in Applied Science Degrees		Florida's Statewide Course Numbering System	119
Definition	48	Funeral Service Education	110
Associate in Science/Associate in Applied Science Degrees		General Education and Miami Dade College Learning Outcomes	48
Programs	66	General Education Requirements for the Associate in Arts Degree	48
Attendance in Class	41	General Education Requirements for the Associate in	
Audit	41	Science/Associate in Applied Science	50
Automobiles on Campus	35	Gordon Rule	50
Baccalaureate Degree	47	Grading System	41
Bachelor of Applied Science	55	Graduation Requirements and Transfer Information	45
Bachelor of Science	56	Graduation Requirements	47
Basic Skills Assessment Program	31	Grievance Policy	37
Basis on Which Financial Aid Is Granted	27	The Honors College	110
Board of Trustees, Administration, Faculty and MDC Foundation	249	Housing	37
Bookstore	33	How to Apply for Admissions	17
Campus Activities, Clubs and Organizations	38	How to Apply for Financial Aid	27
Career Services	31	Identification	37
Career Technical Education Programs	51	Information and Policies	35
Career Technical Education Programs	83	Intercollegiate Athletics	38
The Center @ MDC	109	International Student Admissions	23
College Credit Certificate Programs	51	Library Services	33
College Credit Certificate Programs	75	Maps	276

Media Services	33	Student Government Association	38
MEED Program	111	Student Health Services	34
Miami Dade College Foundation Inc.	116	Student Ombudsman	42
Miami Dade Student Assistance Programs	28	Student Publications	38
Miami International Book Fair	109	Student Services	29
Military Service Schools, Defense Activity for		Students' Rights and Responsibilities	37
Non-Traditional Education Support (DANTES) and		Study Abroad Programs	113
United States Armed Forces Institute (USAFI)	114	Suspension	43
New Student Center	34	Tax Help for Educational Expenses	28
New World School of the Arts	111	Teatro Prometeo	109
Other Assessment Procedures for College Level		Time-Saving Degree Opportunities	113
Communication and Computation Skills (6a-10.030)	50	Transcript of Records	43
Other Sources of Financial Assistance	28	Transfer Information	51
Payment Policy	26	Verification	27
Petitions Committee	42	Veterans Administration Assistance	28
Philosophy of Financial Aid	27	Virtual College	112
Post-Baccalaureate Certificate	58	Vocational Credit Courses	226
Reapplying for Financial Aid	27	Wellness Center	112
Refund Policy	25	What Is Financial Need?	27
Refunds and Repayments	28	Who Qualifies For Financial Aid	28
Registration and Records	34	Withdrawals	44
Reserve Officers Training Corps	112		
Residency for Tuition Purposes	22		
Safety and Security	37		
School of Architecture and Interior Design	101		
School of Aviation	102		
School of Business	102		
School of Continuing Education and Professional Development ..	102		
School of Education	102		
School of Engineering and Technology	103		
School of Entertainment & Design Technology	103		
School of Health Sciences	101		
School of Justice	104		
School of Nursing	104		
Servicemembers' Opportunity College	112		
Services for Students with Disabilities	34		
Special Academic and Other Programs	105		
Special Academic and Other Programs	105		
Special Information	115		
Special Recognition for Outstanding Academic Performance	51		
Standards of Academic Progress	42		
State of Florida Articulation Agreement.....	52		
Student Financial Aid	27		