Volume XXXIX

Catalog 2006–2008

Published biennially by
Miami Dade College,
Miami, Florida.

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 all regardless of sex, race, religion, marital status, age, national origin or disability. The administration is committed to implementing Federal and State laws and regulations and District Board of Trustees policies governing equal access/equal opportunity.

The Florida Educational Equity Act states, "No person in this state shall, on the basis of race, color, sex, national origin, marital status, or handicap, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity, or in any employment conditions or practices..." (Section 1000.05, F.S.)

The College is committed to providing equal access/equal opportunity in admissions, recruitment, financial assistance, access to course offerings, participation in extra-curricular programs and activities, access to and use of facilities, counseling, housing referral, guidance, advising, health services, athletics, employment and retention of personnel and students. It further extends its commitment to fulfilling the provisions of Title IX, Section 504 of the Rehabilitation Act, and the Americans with Disabilities Act.

Responsibility for the implementation of the above commitments rests with the District President.

To obtain more detailed information or assistance in the area of equal access/equal opportunity, consult the designated offices at one of the following locations:

District Administration
Joy C. Ruff
Office of Employee Relations/Equal Opportunity Programs/ADA Coordinator
11011 S.W. 104th St.
Miami, FL 33176-3393

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. 104 St.
Miami, FL 33176-3393

Mitchell Wolfson New World Center Campus
Office of the Campus President
300 N.E. Second Ave.
Miami, FL 33132-2297

Medical Center 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 West 49th St.
Hialeah, FL 33012

West Campus
Office of the Campus President
3800 NW 115th Ave.
Doral, FL 33178

To obtain additional information about the college, including an application to enroll, write, phone or visit any campus Admissions and Registration office.

Purpose of the Catalog

This Catalog provides prospective students, currently enrolled students and others information about Miami Dade College, especially its 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 admissions officer or with an academic advisor.

Although faculty advisors and administrators will help students meet the requirements for a certificate or degree, the students themselves are responsible for fulfilling 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 Commission on Colleges of the Southern Association of Colleges and Schools to award associate and baccalaureate degrees.

Additional accreditations include:

Accreditation Review Commission on Education for the Physician Assistant, Inc. (ARC-PA)
American Bar Association, Standing Committee on Legal Assisting
American Dental Association, Commission on Dental Accreditation
American Dietetic Association, Commission on Accreditation of Dietetic Education
American Health Information Management Association (AHIMA) Council on Accreditation
Commission on Opticianry Accreditation
Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP)
Council on Accreditation of Allied Health Education Programs (CAAHEP), Committee on Accreditation for Respiratory Care
Federal Aviation Administration
Florida Board of Nursing
Florida Council of Licensed Midwifery
Florida Department of Health - Bureau of Emergency Medical Services
American Physical Therapy Association, Commission on Accreditation in Physical Therapy Education (CAPTE)
Florida Department of Law Enforcement, Criminal Justice Standards and Training Commission
Florida Real Estate Commission, Department of Business and Professional Regulation – Division of Real Estate
American Board of Funeral Services Education, Inc.
National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)
Joint Review Committee on Education in Diagnostic Medical Sonography
Joint Review Committee on Education in Radiologic Technology (JRCERT)
National Accrediting Agency for Clinical Laboratory Sciences
National League for Nursing (NLN), Accreditation Committee
The Midwifery Education Accreditation Council

Professional Organizations and Association Memberships

AACC International/Intercultural Consortium
American Association of Higher Education
American Association of Collegiate Registrars and Admissions Officers
American Association of Community Colleges
American Association of Women in Community and Junior Colleges
American Council on Education
American Council on International/Intercultural Education
Association of American Colleges
Association of College Business Schools and Programs
Association of Community College Trustees
Association of Governing Boards of Universities and Colleges
Association of International Education Administrators
Association for Managing and Using Information Technology in Higher Education (CAUSE)
Beacon Council
Center for Study of the Presidency
College Consortium for International Studies
Community College Humanities Association
Community Colleges for International Development
Conference of Funeral Service Examining Boards
Consortium for Institutional Effectiveness and Student Success in the Community College
EDUCOM
Florida Association of Colleges and Universities
Florida Association of Community Colleges
Florida-Brazil Institute
Florida Campus Compact
Florida Collegiate Consortium for International/Intercultural Education
Florida Community College Activities Association
Florida Developmental Education Association
Florida-France Institute
Florida Vocational Association
Fulbright Association
GATE: Global Alliance for Transitional Education
Greater Miami Chamber of Commerce
Institute of Certified Public Accountants
Institute of International Education
Instructional Telecommunications Consortium
International Vocational Education and Training Association
League for Innovation in the Community College
National Association of College and University Attorneys
National Association of College and University Business Officers
National Association of Foreign Student Affairs
National Association of International Educators
National Association of Student Financial Aid Administrators
National Association of Veterans' Program Administrators
National Collegiate Honors Council
National Commission for Cooperative Education
National Community College Hispanic Council
National Council for Occupational Education
National Council for Staff, Program and Organizational Development
National Council of Community College Business Officers
National Council on Black American Affairs
Southeast Florida Educational Computing Consortium
Southeast Florida Library Information Network
Southeastern Library Network
Southern Association of Colleges and Schools
Southern Association of Community and Junior and Technical Colleges
Southern Growth Policies Board
The College Board University Mortuary Science Education Association

Requests for review of Letters of Accreditation may be forwarded to the District Office of Education.

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

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Call us Essential ... Call us the College

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Academic Calendar 2005 – 2006

Fall Term

Aug. 22, Mon.	Faculty reports, FALL TERM
Aug. 23, Tue.	Fall Term Preparation
Aug. 24, Wed.	Evening and weekday/evening classes begin*
Aug. 27, Sat.	Saturday classes begin*
Aug. 30, Tue.	Last day to drop classes with 100% refund for regular Fall Term classes
Sept. 3 – 5, Sat. - Mon.	Holiday Period – Labor Day
Oct. 1, Sat.	CLAST exam
Nov. 1, Tue.	Last day to apply for institutional credit by examination, for individual course withdrawal and complete withdrawal from college
Nov. 24 - 27, Thu. - Sun.	Holiday Period – Thanksgiving
Dec. 16, Fri.	Last day of classes and examinations
Dec. 17, Sat.	Faculty grade input ends 12:00 noon. Last day for faculty
Dec. 19 - Jan. 2, 2006 M-M	Winter Break

Spring Term

Jan. 3, Tue.	Faculty reports, SPRING TERM
Jan. 4, Wed.	Evening and weekday/evening classes begin*
Jan. 7, Sat.	Saturday classes begin*
Jan. 10, Tue.	Last day to drop classes with 100% refund for regular Spring Term classes
Jan. 14 - 16, Sat. - Mon.	Holiday Period – Martin Luther King Jr. Day
Feb. 18, Sat.	CLAST Exam
Mar. 2, Thu.	Professional Development Day – classes not in session
Mar. 15, Wed.	Last day to apply for institutional credit by examination, for individual course withdrawal, and complete withdrawal from college
April 3, Mon.	Last day to apply for a degree to be awarded for 2005-2006 academic year and have name appear in Commencement program
April 14 - 16, Fri. - Sun.	Spring Recess
April 28, Fri.	Last day of classes and examinations
April 29, Sat.	Faculty grade input ends 12:00 noon. Last day for faculty
April 29, Sat.	Commencement
May 1 - 5, Mon. - Fri.	Semester Break

Summer Term

May 8, Mon.	Faculty reports, SUMMER TERM
May 8, Mon.	Evening and weekday/evening classes begin for first 6-week Summer Session and for the 12-Week Summer Term*
May 10, Wed.	Last day to drop classes with 100% refund for the first 6-week Summer Session
May 11, Thu.	Last day to drop classes with 100% refund for the 12-week Summer Term
May 27 - 29, Sat. - Mon.	Holiday Period – Memorial Day
June 2, Fri.	Last day to apply for institutional credit by examination and for course withdrawal and complete withdrawal from college for the first 6-week Summer Session
June 3, Sat.	CLAST exam
June 16, Fri.	Last day of classes and examinations for the first 6-week Summer Session
June 16, Fri.	Faculty grade input for the first 6-week Summer Session ends at 12:00 Noon
June 19, Mon.	Evening and weekday/evening classes begin for the second 6-week Summer Session*
June 21, Wed.	Last day to drop classes with 100% refund for the second 6-week Summer Session
June 27, Tue.	Last day to apply for institutional credit by examination and for course withdrawal, and complete withdrawal from college for the 12-week Summer Term
July 4, Tue.	Holiday Period – Independence Day
July 14, Fri.	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 28, Fri.	Last day of classes and examinations for the 12-week Summer Term and the second 6-week Summer Session
July 28, Fri.	Faculty grade input ends at 12:00 noon. Last day for faculty

**Registration information provided each term by campus Registration Office.*

Academic Calendar 2006 – 2007

Fall Term

Aug. 21, Mon.	Faculty Reports, FALL TERM
Aug. 22, Tue.	Fall Term Preparation
Aug. 23, Wed.	Evening and weekday/evening classes begin*
Aug. 26, Sat.	Saturday classes begin*
Aug. 29, Tue.	Last day to drop classes with 100% refund for regular Fall Term classes
Sept. 2 - 4 Sat. - Mon.	Holiday Period – Labor Day
Sept. 8, Fri.	Deadline to Register for CLAST Exam
Oct. 7, Sat.	CLAST Exam
Oct. 31, Tue.	Last day to apply for institutional credit by examination, for individual course withdrawal and complete withdrawal from college
Nov. 23 - 26, Thu. - Sun.	Holiday Period – Thanksgiving
Dec. 8, Fri	Last day of classes
Dec. 15, Fri.	Last day of final exams
Dec. 16, Sat.	Faculty grade input ends 12:00 noon. Last day for faculty
Dec. 18 - Jan. 1, 2007 M-M	Winter Break

Spring Term

Jan. 2, Tue.	Faculty reports, SPRING TERM
Jan. 3, Wed.	Evening and weekday/evening classes begin*
Jan. 6, Sat.	Saturday classes begin*
Jan. 9, Tue.	Last day to drop with 100% refund for regular Spring Term classes
Jan. 13 - 15, Sat. - Mon.	Holiday Period – Martin Luther King, Jr. Day
Jan. 19, Fri.	Deadline to Register for CLAST Exam
Feb. 17, Sat.	CLAST Exam
Mar. 1, Thu.	Professional Development Day – classes not in session
Mar. 14, Wed.	Last day to apply for institutional credit by examination, for individual course withdrawal, and complete withdrawal from college
April 2, Mon.	Last day to apply for a degree to be awarded for 2006-2007 academic year and have name appear in Commencement program
April 6 - 8, Fri. - Sun.	Spring Recess
April 20, Fri.	Last day of classes
April 27, Fri.	Last day of final exams
April 28, Sat.	Faculty grade input ends 12:00 noon. Last day for faculty
April 28, Sat.	Commencement
April 30- May 4, Mon. - Fri.	Semester Break

Summer Term

May 7, Mon.	Faculty reports, SUMMER TERM
May 7, Mon.	Evening and weekday/evening classes begin for first 6-week Summer Session and for the 12-Week Summer Term*
May 9, Wed.	Last day to drop classes with 100% refund for the first 6-week Summer Session
May 10, Thu.	Last day to drop classes with 100% refund for the 12-week Summer Term
May 26 - 28, Sat. - Mon.	Holiday Period – Memorial Day
June 1, Fri.	Last day to apply for institutional credit by examination and for course withdrawal and complete withdrawal from college for the first 6-week Summer Session
June 25, Mon.	Last day to apply for institutional credit by examination and for course withdrawal and complete withdrawal from college for the 12-week Summer Session
May 4, Fri.	Deadline to Register for CLAST Exam
June 2, Sat.	CLAST Exam
June 15, Fri.	Last day of classes and examinations for the first 6-week Summer Session
June 16, Fri.	Faculty grade input for the first 6-week Summer Session ends at 12:00 Noon
June 18, Mon.	Evening and weekday/evening classes begin for the second 6-week Summer Session*
June 20, Wed.	Last day to drop classes with 100% refund for the second 6-week Summer Session
July 4, Wed.	Holiday Period – Independence Day
July 13, Fri.	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 27, Fri.	Last day of classes and examinations for the 12-week Summer Term and the second 6-week Summer Session
July 28, Sat.	Faculty grade input ends at 12:00 Noon. Last day for faculty

**Registration information provided each term by campus Registration Office.*

Academic Calendar 2007 – 2008

Fall Term

Aug. 27, Mon.	Faculty reports, FALL TERM
Aug. 28, Tue.	Fall Term preparation
Aug. 29, Wed.	Evening and weekday classes begin*
Sept. 8, Sat.	Saturday classes begin*
Sept. 5, Wed.	Last day to drop classes with 100% refund for regular Fall Term classes
Sept. 1 - 3, Sat. - Mon.	Holiday Period – Labor Day
Sept. 7, Fri.	Deadline to Register for CLAST Exam
Sept. 29, Sat.	CLAST Exam
Nov. 6, Tue.	Last day to apply for institutional credit by examination, for individual course withdrawal, and complete withdrawal from college
Nov. 22 - 25, Thu. - Sun.	Holiday Period – Thanksgiving
Dec. 14, Fri.	Last day of classes
Dec. 21, Fri.	Last day of examinations
Dec. 22, Sat.	Faculty grade input ends 12:00 noon. Last day for faculty.
Dec. 23 – Jan. 6, 2008 Sun.-Sun.	Winter Break

Spring Term

Jan. 7, Mon.	Faculty reports, SPRING TERM
Jan. 8, Tue.	Evening and weekday evening classes begin*
Jan. 12, Sat.	Saturday classes begin*
Jan. 14, Mon.	Last day to drop classes with 100% refund for regular Spring Term classes
Jan. 19 - 21, Sat. - Mon.	Holiday Period – Martin Luther King, Jr. Day
Jan. 18, Fri.	Deadline to Register for CLAST Exam
Feb. 16, Sat.	CLAST Exam
Mar. 6, Thu.	Professional Development Day – classes not in session
Mar. 18, Wed.	Last day to apply for institutional credit by examination, for individual course withdrawal, and complete withdrawal from college
Mar. 21 - 23, Fri. - Sun.	Spring Recess
Mar. 31, Mon.	Last day to apply for a degree to be awarded for the 2007-2008 academic year and have name appear in Commencement program
April. 25, Fri.	Last day of classes
May 2, Fri.	Last day of examinations
May 3, Sat.	Faculty grade input ends 12:00 noon. Last day for faculty.
May 3, Sat.	Commencement
May 5 - 9, Mon. - Fri.	Semester Break

Summer Term

May 12, Mon.	Faculty reports, SUMMER TERM
May 12, Mon.	Evening and weekday classes begin for first 6-week Summer Session and for the 12-week Summer Term*
May 14, Wed.	Last day to drop classes with 100% refund for first 6-week Summer Session
May 15, Thu.	Last day to drop classes with 100% refund for the12-week Summer Term
May 24 - 26, Sat. - Mon.	Holiday Period – Memorial Day
May 14, Wed.	Last day to apply for institutional credit by examination, for course withdrawal, and complete withdrawal from college for the first 6-week Summer Session
May 2, Fri.	Deadline to Register for CLAST Exam
May 31, Sat.	CLAST exam
June 20, Fri.	Last day of classes and examinations for the first 6-week Summer Session
June 21, Sat.	Faculty grade input for the first 6-week Summer Session ends at midnight
June 23, Mon.	Evening and weekday classes begin for the second 6-week Summer Session*
June 25, Wed.	Last day to drop classes with 100% refund for the second 6-week Summer Session
July 1, 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, Fri.	Holiday Period – Independence Day
July 18, Fri.	Last day to apply for institutional credit by examination, for course withdrawal, and complete withdrawal from college for the second 6-week Summer Session
Aug 1, Fri.	Last day of classes and examinations for the 12-week Summer Term and the second 6-week Summer Session
Aug 18, Mon.	Faculty grade input ends at midnight. Last day for faculty.

**Registration information provided each term by campus Registration Office.*

About Miami Dade College

Miami Dade College offers a wide range of programs designed to meet the needs of greater metropolitan Miami. The College offers four 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 areas of concentration. 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. In Fall 2003, MDC began enrolling students in baccalaureate degree programs (B.A. and B.S.) in education. These programs were designed to meet the community's need for educators by helping students enter the teaching profession. 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. In the past five years, more than 50 new A.S. and certificate programs have been developed to meet the needs of Miami's growth.

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 sex, race, color, religion, marital status, age, national origin or disability.

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

Mission Statement

The mission of Miami Dade College is to provide accessible, affordable, high quality education by keeping the learner's needs at the center of decision-making and working in partnership with its dynamic, multicultural community.

Teaching/Learning Values

Miami Dade College's mission derives its foundation from the values shared between teaching and learning. These educational principles are listed below, with each value followed by a series of supporting statements.

I. Miami Dade College Values Learning.

To support this value, the College:

- creates an environment conducive to teaching and learning
- supports life-long learning
- encourages the free interchange of ideas and beliefs.
- provides the resources necessary for teaching and learning.
- employs qualified personnel to facilitate learning
- provides advisement and counseling to support the needs of students
- expects everyone to participate actively in the learning process.
- addresses the learning needs of the community
- emphasizes communication skills.

II. Miami Dade College Values Change to Meet Educational Needs and to Improve Learning.

To support this value, the College:

- encourages and supports innova-

tion and creativity
- responds to the changing educational needs of the community
- anticipates the future needs of the community
- supports faculty and staff development.

III. Miami Dade College Values Access While Maintaining Quality.

To support this value, the College:
- provides supportive services to assist students in meeting their educational goals
- offers students prescriptive learning opportunities
- provides occupational education which prepares the graduate to work at levels expected by the community
- expects students to meet defined standards
- provides academic programs which prepare the graduate to succeed in upper-division learning
- provides educational opportunities for personal development
- structures the admissions process to encourage enrollment
- provides a variety of scholarships and financial aid programs.

IV. Miami Dade College Values Diversity in Order to Broaden Understanding and Learning.

To support this value, the College:
- respects individuals from a variety of cultural backgrounds
- provides role models
- offers interdisciplinary educational programs
- provides programs and opportunities for student growth
- teaches students about the cultural, economic, political and social environments in which they live
- helps students to understand themselves and others
- sponsors academic organizations and extracurricular activities
- respects and responds to students' different learning styles
- respects and accepts different teaching styles.

V. Miami Dade College Values Individuals.

To support this value, the College:
- encourages a positive attitude toward teaching and learning
- stresses honesty and integrity
- expects all individuals to interact
- communicates accurately and promptly
- recognizes the importance of prior learning and experience
- develops realistic expectations for all individuals
- publishes explicit performance expectations for faculty, staff and administrators
- publishes explicit performance expectations for students
- rewards achievement.

VI. Miami Dade College Values a Systematic Approach to Decision-Making.

To support this value, the College:
- collects accurate and current data
- assesses the community's learning needs
- measures students' abilities upon entry to the institution
- assesses programs' effectiveness
- provides feedback to assist in meeting standards
- evaluates students' progress throughout their careers at Miami Dade College
- encourages individuals to be aware of relevant current research
- surveys students' perceptions about courses, programs and the teaching/learning environment
- uses the expertise of the faculty to improve the teaching/learning process.

VII. Miami Dade College Values Its Partnership With the Community.

To support this value, the College:
- provides accessible campus and outreach centers
- cooperates with other educational systems
- supports activities that enrich the community

- plans educational programs with business and industry to promote the economic development of the community
- increases the community's awareness of College programs and activities.

Vision Statement

Miami Dade College is committed to being a college of excellence, renowned for its:

• Satisfied, well-prepared students who, through their extraordinarily positive experience at MDC, have acquired the needed knowledge and skills to be successful in their ongoing academic and career pursuits.

• Empowered employees working within an environment that encourages creativity, risk-taking and accountability, who apply their individual and collective talents to fulfill the College's mission.

• Highly supportive community that recognizes the significant impact of MDC's educational and training programs.

• Effective use of adequate resources to enable programs to flourish and the talents of people to emerge.

MDC History

The 60s: Opening Education's Doors

Miami Dade College opened its doors in 1960 amid the strain of desegregation and the influx of thousands of Cuban refugees. One thousand four hundred twenty-eight students entered "Chicken Coop College," nicknamed for the original buildings that were transformed into classrooms. Dade County Junior College, as it was then known, 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 five dollar 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, Miami Dade'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's Graduate School of Education, called Miami Dade "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 Center Campus came into being 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 or refugees, and 46% reported that English was not their native language. Almost two-thirds of Miami Dade students were minorities and 56% were women. Part-time students were common.

In 1984, the New World School of the Arts 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, New World is recognized as one of the premier arts high school/college programs in the country, with the work of its graduates gracing venues from New York to Los Angeles.

1984 also was witness to a modest College-sponsored bookfest on Kyriakides Plaza at the 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, drawing 250 premier authors, 300 of the world's renowned publishing houses and booksellers, and half a million fairgoers.

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

With the closing of the decade, the College's place in education was nationally recognized: the prestigious University of Texas Community College Leadership Program identified Miami Dade as the number one 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 Education Review revamped the academic core and electives, 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 stability, freeing resources for new staff and program development.

The College's Technology Master Plan put Miami Dade on the fast-track

in academic and administrative computing throughout the 1990s. Miami Dade 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 Miami Dade on the Internet map, allowing students to "attend" classes via the World Wide Web. Recognition soon followed: Yahoo's 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 the already matured InterAmerican Center was granted campus status by the District Board of Trustees. It was subsequently accredited by the Commission on Colleges of the Southern Association of Colleges and Schools.

2000: A New Learning Agenda

The new millennium dawned and Miami Dade 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, number one 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 Miami Dade 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 workstations. The Center, located at the Wolfson Campus on the first floor of Building 7, also has a 120-seat auditorium and offices for faculty and staff.

The College continues to contribute to the region's cultural landscape via the nationally acclaimed Cultura del Lobo Performance Series and the reinvigorated Miami International Film Festival. MDC's management of these projects opens the door for student artists by allowing them to take advantage of unique learning opportunities. The New York Times named MDC's cultural programming among the best in academia.

The College recently welcomed its inaugural baccalaureate class in teacher education, responding to a community and statewide need for teachers in the K-12 system. Baccalaureate degrees are offered in secondary math and science, as well as exceptional student education. 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.

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

MDC became the proud steward of Miami's signature building, the historic Freedom Tower. The Freedom Tower, the Ellis Island of the south, received the many immigrants who flocked to South Florida in the 1960s and 1970s, and also housed the Miami Daily News and Metropolis newspapers.

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.

Campuses

MDC enrolls more than 160,000 students at its eight campuses and smaller satellite 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. The North Campus is a gateway for students wishing to upgrade skills and complete one-year certificate programs, prepare for licensing exams or start working on a bachelor's degree.

The North Campus is also recognized for its unique programs. The School of Justice provides basic training for all police and correctional officers in Miami-Dade County, as well as more than half the private security personnel. The School of Justice also offers continuing professional development classes for police departments throughout the county and a state-of-the-art Assessment Center. The School of Fire and Environmental Sciences trains all Miami-Dade County firefighters and provides continuing education for municipalities throughout the county and the east coast. A new live fire training facility is the only one of its kind in South Florida. Additionally, the School offers programs in chemical and watershed management. The North Campus also houses the Funeral Services program, the only program offered by a public institution in southeastern Florida that trains morticians and funeral service directors. Those students wishing to pursue careers in film and digital imaging, television and sound engineering, or radio and music business, take advantage of the School of Entertainment Technologies. This School operates Miami-Dade CableTap, the county's free-access cable TV station. The North Campus also administers the Carrie P. Meek Entrepreneurial Education Center, which promotes excellence in education, entrepreneurship and workforce preparation.

Kendall

The Kendall Campus, situated on a 185-acre tract of trees and lakes, opened in 1967. It is home to a wide variety of academic programs and specialized institutes. The campus features 13 buildings equipped with the latest technologies, a wellness center, athletic fields and an Olympic-sized pool.

The 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.

The Kendall Campus' Title V Project, "Creating a Culture of Success in Science, Mathematics, and Engineering," provides students with academic support services focused on enhancing student learning in these disciplines. 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 the Kendall Campus and offers a variety of non-credit 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 newest additions to the campus is the Geology 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 nine exhibitions each year and houses a permanent collection of more than 700 works. The student newspaper, The Catalyst, as well as the campus literary magazine, Miambiance, are award-winning publications.

Wolfson

The Wolfson Campus opened in 1970 by holding classes in the storefronts of downtown Miami. With the completion of the campus' first permanent facility in 1973, Wolfson 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 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.

The 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 the 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 more than 500,000 fairgoers to the Campus. Miami Book Fair International celebrated its twentieth anniversary in 2003.The New York Times calls this Wolfson Campus event the model for all other book fairs. Miami Book Fair International is one way the Wolfson Campus shows its commitment to meeting the community's educational needs and maintaining its tradition of promoting meaningful cultural encounters.

Medical Center

In 1977, Miami Dade College opened its Medical Center 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 School of Medicine, Jackson Memorial Hospital, Veterans Administration Hospital and Miami-Dade County Public Health Service, the Medical Center 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. The Medical Center Campus educates two thirds of the newly graduated registered nurses in Miami-Dade County. The practical nursing program (LPN) was reopened in 2000. Over 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.

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, the 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, the Homestead Campus will also grow, expanding its horizons to meet the needs of the South Dade community.

InterAmerican

The InterAmerican Campus is located in the heart of Little Havana, one of the most colorful and lively neighborhoods in Miami's historic Latin Quarter. The seed for the 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 1980's, 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's Foundation. The InterAmerican Center became the largest bilingual learning environment in all of higher education.

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

Today, the InterAmerican Campus provides service to students in over 200 programs. It is also home to the College's School of Education, now offering 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

The 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 an Associate in Arts or Associate in Science degree are offered. Educational opportunities are also available through Vocational Credit Certificate Programs, as well as through courses providing career entry in Computer Technology, Office Technology, Electronics and Early Childhood Development. The Hialeah Center houses a large and comprehensive English language training program for speakers of other languages in various instructional formats.

West

The West Campus was approved by the Florida State Board of Education in 2005 as MDC's eighth campus. Serving one of the fastest-growing locales in Miami-Dade County, including Doral and surrounding areas, West Campus offers courses toward the Associate in Arts and Associate in Science degrees. Corporate training programs are also offered at West Campus. West Campus opened for classes on March 1, 2006, and promises to be the next exciting learning environment for the greater Miami community.

The Carrie P. Meek Entrepreneurial Education Center

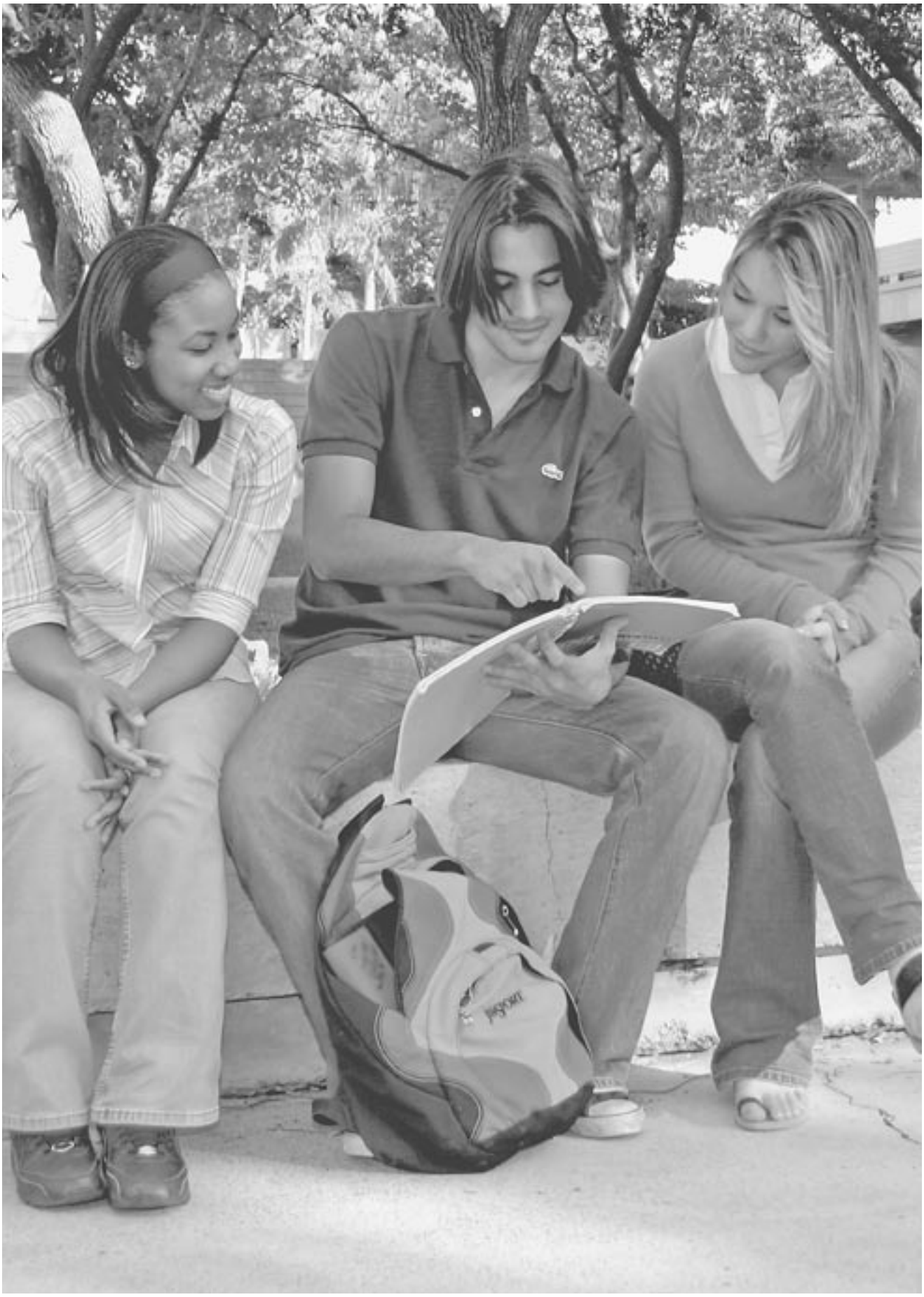
The Carrie P. Meek Entrepreneurial Education Center (EEC) is an outreach program of the North Campus. The EEC opened its doors on October 4, 1989, in the heart of Liberty City, a predominantly African-American community within the City of Miami. The mission of the Entrepreneurial Education Center is 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 also offers a vast array of college credit and non-credit courses. Students pursue certificate and vocational programs in a number of fields and 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

MDC



Admissions Information

Admissions Criteria

Admission to College Credit Programs

1. The following persons are eligible for admission to the college credit programs of Miami Dade College:
   a. *Graduates from accredited high schools in the United States (Standard Diploma), persons holding a state-issued high school equivalent (GED) diploma, or students who have completed a home education program evidenced by a signed affidavit from their parent or legal guardian, stating that the student completed a home education program (all programs);
   b. Transfer students from colleges, universities and certain other post-secondary institutions (all programs);
   c. *Foreign students with education equivalent to U.S. secondary school education and meeting language standards established through College policy and/or procedure (all programs).
2. Prior to enrolling in college degree programs, all first-time-in-college students will be provided admissions counseling and are required to be tested for achievement of communication and computation competencies. Students scoring below established minimum levels are required to enroll in college preparatory instruction.
3. A limited number of programs have supplementary admission requirements. 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 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 (students should consult the campus admissions office).
4. Admission to special student categories (dual enrollment, early admission) is permitted when authorized by the College President.
5. Foreign students who require a student visa (F-1) must also provide the following supplementary admission documents:
   a. A minimum score of 550 on the TOEFL test (or 213 on the computerized version). Students scoring below will be required to enroll in the English as a Second Language Program;
   b. Certificate of health and accident insurance;
   c. Statement of financial resources available to support education costs; and
   d. Evidence of completion of secondary education, or equivalent, submitted with a certified official English translation. All required information is to be submitted to the admissions office of the campus to which the application is directed 90 days in advance of the beginning of the next term.

Admission to Post-Secondary Adult Vocational (PSAV) Credit Certificate Programs

1. The following persons are eligible for admission to the Vocational Credit programs of Miami Dade College:
   Graduates from accredited high schools, persons holding a state-issued high school equivalent (GED) diploma, home-educated 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 vocational credit certificate program of 180 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 Vocational Certificate 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 5 above.

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

How to Apply

Admissions Procedures and Supporting Credentials

A. 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 may also be accessed at MDC's Homepage (www.mdc.edu) by first selecting Prospective Students, and then Online Admission. Submit the application prior to the beginning of the term of enrollment. International students and out of state students should submit the application at least 60 days prior to the beginning of the term. A $20.00 non-refundable application fee is charged for processing a student's first application.
B. 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. (Page 18)
C. Official transcript(s) should be sent directly from the applicant's high school, college or other post-secondary educational institution to the Admissions Office of MDC.
D. High school equivalency diploma or certificate holders should provide the original document and score report (which will be returned). In Florida, this certificate is the State of Florida High School Diploma. See the General Educational Development (GED) section (page 17) for additional information.
E. Failure to submit all necessary admissions credentials, transcripts or certifications will prevent registration, release of grades, transcripts or 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. Failing grades from other colleges are computed in the student's cumulative grade point average. A student who was on academic probation at a previous college may be admitted to MDC in a similar status. See the Standards of Academic Progress in the "Academic Regulations" section of this catalog.

College courses completed more than 10 years prior to the date of enrollment at Miami Dade may require validation by examination. A high school transcript indicating date of graduation may be required of applicants who have completed fewer than 12 acceptable college credits.

Students who have taken courses in non-English speaking countries must have an official certified translation made of their credits and submit this translation to the Admissions Office. (See International Student Admissions section for further requirements, page 21.)

Transient Student Information

Transient students are students who are enrolled in another college or university and are coming to MDC to take one or a few courses. Transient students should be advised, preferably in writing, by their own college or university concerning recommended courses to take at Miami Dade. Prerequisite and/or co-requisite course requirements may apply to course selections. Transient non-degree students at Miami Dade may be required to have official transcript(s) sent directly to Miami Dade from their previous college(s).

Non-Degree Applicants

Non-degree applicants are students who wish to take selected college courses without the intent of completing an associate degree program. These students must fill out an application for admission and provide evidence of high school graduation. Many people attend the College because they want 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 15 credits as a non-degree student are required to complete the Computerized Placement Test (CPT). If, at a later time, these students become associate degree candidates, regular admissions procedures regarding 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 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. Successful completion of the appropriate section of the College's Computerized Placement Test (CPT). Students who do not successfully complete the appropriate test will not be permitted to enroll at MDC until after high school graduation.
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.

B. **Early Admission** – Academically superior high school students may attend Miami Dade 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 Office of Admissions.

Readmission to the College

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

1. The student was admitted for a specific term but did not enroll
2. The student did not attend any one of the four preceding terms
3. 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
4. The Florida student residency was completed more than 12 months ago.

College Preparatory Courses

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

Students will be placed into College Preparatory courses in the subjects where scores indicate a need for this instruction. Enrollment in certain other courses may be restricted until all College Prep courses have been completed.

In accordance with Florida Statute 240.321, 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 complete College Prep courses by the time 12 credits are accumulated.

State Board of Education rules limit the number of times a student can take a College Prep course. Enrollment beyond the 100% refund deadline is considered an "attempt," and students can attempt a course only three times. Contact Academic Advisement for additional information.

Eligibility for Placement Into Select College Programs and Programs Leading to Licensure

All candidates for admission to the College are accepted for enrollment as stipulated in the College "Admissions Policy Statement."

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

Students requesting placement into such programs will receive specific eligibility requirements from the divisions or departments concerned. A selection committee determines final approval for placement into these specific programs. The department chairperson provides notification of placement 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. Counseling and 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

Non-high school graduates are encouraged to complete their high school education by obtaining a State of Florida high school diploma (GED). A graduate with a GED is eligible for associate degree programs at the College.

To qualify for the issuance of a State of Florida high school diploma (GED), the individual must be at least 16 years old, reside in Florida and successfully complete the GED test. 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 any MDC campus. Individuals should contact the Community Education department. 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

Teachers should clear in advance with the public school Certification Office or the State Department of

Education Office of Teacher Education, Certification and Staff Development, that the courses in which they wish to enroll at MDC will meet specific certification requirements.

College credit courses offered by Miami Dade, as approved by the Certification Office, 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 in the Education Department or Academic Advisement offices at each campus.

Florida Residency

Miami Dade College policy concerning Florida residency requirements complies with the laws of Florida (Statute §. 1009.21) and State Board of Education Rule 6A-10.044, which are reprinted as follows:

§. 1009.21. Determination of resident status for tuition purposes.

Students shall be classified as residents or non-residents for the purpose of assessing tuition fees in public community colleges and universities.

(1) As used in this section:

(a) The term "dependent child" means any person, whether or not living with his parent(s), who is eligible to be claimed by his parent(s) as a dependent under the Federal Income Tax Code.

(b) The term "institution of higher education" means any of the constituent institutions under the jurisdiction of the State University System or the State Community College System.

(c) A "legal resident" or "resident" is a person who has maintained residence in this state for the preceding year, has purchased a home which is occupied by him as his residence, or has established a domicile in this state pursuant to §.222.17.

(d) The term "parent" means the natural or adoptive parent or legal guardian of a dependent child.

(e) A "resident for tuition purposes" is a person who qualifies as provided in subsection (2) for the in-state tuition rate; a "non-resident for tuition purposes" is a person who does not qualify 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 parent(s) must have established legal residence in this state and must have maintained legal residence in this state for at least 12 months immediately prior to qualification.
2. Every applicant for admission to an institution of higher education shall be required to make a statement as to his length of residence in the state and, further, shall establish that his presence or, if he is a dependent child, the presence of his 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 months immediately prior to the child's qualification, provided the child has resided continuously with such relative for the five years immediately prior to the child's qualification, 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 other-

wise 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) 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 has provided such evidence related to legal residence and its duration as may be required by officials of the institution of higher education from which he seeks the in-state tuition rate.

(4) With respect to a dependent child, the legal residence of such individual's parent or parents is prima facie evidence of the individual's legal residence, which evidence may be reinforced or rebutted, relative to the age and general circumstances of the individual, by the other evidence of legal residence required of or presented by the individual. However, the legal residence of an individual whose parent or parents are domiciled outside this state is not prima facie evidence of the individual's legal residence if that individual has lived in this state for five consecutive years prior to enrolling or re-registering 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 non-resident 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 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) Any non-resident person, irrespective of sex, who marries a legal resident of this state or marries a person who later becomes a legal resident, may, upon becoming a legal resident of this state, accede to the benefit of the spouse's immediately precedent duration as a legal resident for purposes of satisfying the 12-month durational requirement of this section.

(7) A person shall not lose his resident status for tuition purposes solely by reason of serving, or, if such person is a dependent child, by reason of his 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 resident tuition status because he or, if he is a dependent child, his parent or parents establish domicile or legal residence elsewhere shall continue to enjoy the instate tuition rate for a statutory grace period, which period shall be measured from the date on which the circumstances arose that culminated in the loss of resident tuition status and shall continue for 12 months. However, if the 12-month grace period ends during a semester or academic term for which such former resident is enrolled, such grace period shall be extended to the end of that semester or academic term.

(9) Any person who ceases to be enrolled at or who graduates from an institution of higher education while classified as a resident for tuition purposes and who subsequently abandons his 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 re-established his domicile in this state within 12 months of such abandonment and continuously maintains the reestablished domicile during the period of enrollment. The benefit of this subsection shall not be accorded more than once to any one person.

(10) The following persons shall be classified as residents for tuition purposes:

(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 members of the Florida National Guard who qualify under §. 250.10 (7) and (8) for the tuition assistance program.

(b) Active duty members of the Armed Services of the United States and their spouses attending a public community college or 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, community colleges, and institutions of higher education as defined in §1000.04, 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 who are United State 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 public community college or university within 50 miles of the military establishment where they are stationed.

(11) The State Board of Education shall by rule designate classifications of students as residents or nonresidents for tuition purposes at community colleges and state universities.

History. - s.2, ch. 2002-270; s. 400, ch. 2002-387.

6A - 10.44 Residency for Tuition Purposes

The State Board of Community Colleges and the Board of Regents shall maintain consistent policies and practices for the classification of students as residents for tuition purposes to facilitate the transfer of students among institutions. The policies and practices may vary to accommodate differences in governance, but the determinations of classification shall be consistent to assure students of being classified the same regardless of the institution determining the classification.

(1) The classification of a student as a Florida resident for tuition purposes by a public Florida community college or university shall be recognized by other public postsecondary institutions to which the student may later seek admission, unless the classification was erroneous or the student did not then qualify as a resident for tuition purposes.

(2) Once a student has been classified by a public institution, institutions to which the student may transfer are not required to re-evaluate the classification unless inconsistent information suggests that an erroneous classification was made or the student's situation has changed.

(3) Changes the State Board of Community Colleges and the Board of Regents intend to make in the policies and practices for the classification of students as residents for tuition purposes shall be filed with the Articulation Coordinating Committee.

(4) Non-U.S. citizens such as permanent residents, parolees, asylees, refugees or other permanent status persons (e.g., conditional permanent residents and temporary residents), who have applied to and have been approved by the U.S. Immigration and Naturalization Service with no date certain for departure shall be considered eligible to establish Florida residency for tuition purposes. In addition, non-immigrants holding one of the following visas shall be considered eligible to establish Florida residency for tuition purposes. Persons in visa categories not listed herein shall be considered ineligible to establish Florida residency for tuition purposes:

(a) Visa category A – Government official.

(b) Visa category E – Treaty trader or investor.

(c) Visa category G – Representative of international organization.

(d) Visa category H-1 – Temporary worker performing professional nursing services or in a specialty occupation.

(e) Visa category H-4 – Only if spouse or child of alien classified H-1.

(f) Visa category I – Foreign information media representative.

(g) Visa category K – Fiancé, fiancée, or a child of United States citizen(s).

(h) Visa category L – Intra-company transferee (including spouse or child).

(i) Visa category N – Parent or child of alien, accorded special immigrant status.

(j) Visa category O-1 – Workers of "extraordinary" ability in the sciences, arts, education, business, or athletics.

(k) Visa category O-3 – Only if spouse or child of O-1 alien.

(l) Visa category R – Religious workers.

(m) Visa category NATO 1-7 – Representatives and employees of NATO and their families.

(5) Non-U.S. citizens who fall within the following categories shall also be considered eligible to establish Florida residency for tuition purposes:

(a) Citizens of Micronesia.

(b) Citizens of the Marshall Islands.

(c) Beneficiaries of the Family Unity Program.

(d) Individuals granted temporary protected status.

(e) Individuals granted withholding of deportation status.

(f) Individuals granted suspension of deportation status or cancellation of removal.

(g) Individuals granted a stay of deportation status.

(h) Individuals granted deferred action status.

(i) Individuals granted deferred enforced departure status.

(j) Applicants for adjustment of status.

(k) Asylum applicants with INS receipt or Immigration Court stamp.

Specific Authority 229.053(1), 240.325 FS. Law Implemented 240.1201
FS. History - New 10-6-92,Amended 10- 17-2000.

International Student Admissions

Admission – Miami Dade College is authorized under United States Federal Law, Immigration and Nationality Act, Section (101)(a)(15) (F or M) to enroll non-immigrant alien students. In addition to following the regular admission procedures, these students are required to provide a TOEFL (Test of English as a Foreign Language) score if a non-native speaker (or a score on an alternative English Placement Test), a certificate of health and accident insurance, a statement of financial resources to support education costs, and it is necessary that they request a Certificate of Eligibility (SEVIS I-20) from the College.

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 six 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 applicable), must be received at least 90 days prior to the start of the term in which the applicant plans to enroll. International students should plan to take the TOEFL at least six months prior to the intended term of enrollment at Miami Dade in order to assure the official test score report is received at least 60 days before the beginning of the term. 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 Web site at www.toefl.org.

Deadlines for International Student Admissions

Spring Term . . . . . .October 2
Summer Term . . . . . February 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, statement 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.

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. Although no international students will be denied admission because of their TOEFL score, submission of a TOEFL score or alternative testing for non-native speakers is required to complete the admissions process. 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 non-resident fees, textbooks, living expenses, transportation expenses 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. (Page 23)

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 – Visa students must provide to the College, in advance of the intended term of enrollment, a certificate indicating that the student is covered by standard health and accident insurance for a minimum of 12 months. 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 cannot accept off-campus employment without USCIS approval.

SEVIS Identification Number – Upon admission to the United States for the first time, international students are issued a SEVIS I-20 endorsed with a SEVIS identification number. The SEVIS identification number is to be used when contacting any Bureau of the Department of Homeland Security.

Arrival in Miami – After receiving confirmation of acceptance to the College, International students should arrive in Miami approximately 30 days before the beginning of the first term of enrollment. 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 – As a College, Miami Dade 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 – Non-immigrant alien visa students are required to attend the college that is designated on the Certificate of Eligibility (SEVIS I-20). They are expected to complete at least one semester at that institution prior to requesting transfer to any other educational institution. 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. That institution will notify Immigration of the student's transfer of schools. A student who transfers schools 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 – Non-immigrant alien students on visa are required by USCIS regulations to be enrolled full-time. The student should make satisfactory progress in their approved program each term, otherwise the continuation of study on a student visa may be jeopardized and the Certificate of Eligibility (SEVIS I-20) rescinded. See Standards of Academic Progress in "Academic Regulations" section. (Page 40)

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 non-immigrant alien students who:

1. Do not register at the College at the time expected
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. Visa students 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.

Special Fees for International Students may apply, in addition to course and other student fees.

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.

Fees and Refunds

Fees are contingent upon District Board of Trustees approval 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 2005 – 06 year only.

A. Registration Fees 2005-06 – College Credit Courses

1. Florida Residents*
   Matriculation
   Total. . . . . $64.05 per credit
2. Non-Florida Residents*
   Matriculation
   Total. . . . . $219.15 per credit

**See Florida Residency section for definitions*

B. Registration Fees 2005-06 – Vocational Credit Courses

1. Florida Residents*
   Matriculation
   Total. . . . . $54.20 per vocational credit

(Special fees may also apply)

2. Non-Florida Residents*
   Total . . . . . $209.85 per vocational credit

**See Florida Residency section for definitions*

***Service fee includes the following fees: scholarship and capital improvement.*

Upper-division

3. Florida Residents*
   Total. . . . . $72.96 per credit
4. Non-Florida Residents*
   Total. . . . . $294.67 per credit

C. Special Fees and Charges

1. Application Service fee – a $20.00 non-refundable college credit application service fee is charged for processing a student's first application.
2. Late Registration fee – a $50.00 non-refundable fee charged to students registering for college credit on or after the first day of classes.
3. Full cost of instruction – $219.15 charged for students repeating courses more than allowed by college policy
4. Examination fee – a $15.00 per credit non-refundable fee is charged for institutional credit by exam.
5. 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 in the schedule of courses published prior to each term.
6. Credit for prior Specialized Training – a fee of $15.00 per course, up to a maximum of $50.00 per application, is charged for awarding credit for technical training as approved and defined in the College Technical Procedures Manual.
7. Special fees in music courses that offer private lessons range from $60.00 to $110.00.

D. **Registration Fees – Continuing Education 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.

Fee Policy for Repeated Courses

The Florida legislature 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% of the cost of instruction. Since state law prescribes student fees to equal 25% of the cost of instruction, the fee for a repeated course is approximately four times that of an initial attempt.

The law and College policy allow one-time exceptions to the increased fees for courses, and students assessed such a fee should consult an advisor for more information.

Refund Policy

Refunds of registration fees are made only if the student drops or withdraws from a course(s) and the drop is confirmed. For more information on deadlines, students should refer to the sections on "Refund Deadlines" below.

Students who are withdrawn from the College as a result of administrative action, except for disciplinary reasons, are entitled to a full refund of registration fees.

Students withdrawn from a course due to cancellation of that class are entitled to a full refund of registration fees. Students who are withdrawn from a course or courses for disciplinary reasons are not entitled to a refund. 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 pages 3 and 4 of this catalog, and copies are available from the Registrar's Office or on our website at www.mdc.edu/academic_calendar. Weekday classes refer to classes meeting Monday through Friday. The number of days a student has to receive a 100% refund when withdrawing from courses is based on the length of the term, not individual course days.

This is the refund schedule for weekday classes, for a 100% 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% 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 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. 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 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 card will be made by a check payable to the student unless the student has an open debit account (applications are available at any campus Student Life Office).

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.

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 upon 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" on page 25). 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 January 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 e-mail 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% 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 any financial aid recipient who drops all courses or officially withdraws from the College before completing 60% 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 that 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 a 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 Web page 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 Web page at www.mdc.edu/financial_aid/ to obtain more detailed information on financial aid programs, procedures and to check the status of your application and financial aid award.
- E-Mail Communications – Regardless of the campus you attend, you can communicate with the Financial Aid Office via e-mail at: www.finaid@mdc.edu

Student Services

Call us Essential ... Call us the College

MDC

Student Support Services

Advisement

The Academic Advisement/ Counseling Department assists students in selecting courses and programs of study to satisfy their educational objectives. A staff of full-time advisors representing diverse educational and professional backgrounds is available to provide this service.

All students are encouraged to meet with an advisor after gaining admission to the College. In order to best take advantage of the consultation, this appointment should occur after assessment testing and before registration. Returning students with declared majors should seek advisement from faculty in their major department. 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 (CPT, SAT, or ACT), their chosen program and outside commitments.

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

During enrollment at Miami Dade, 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.

Degree Audit

The Degree Audit is for advisement purposes only. The catalog 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 Computerized Placement Test (CPT) free of charge to MDC students. Students may schedule a convenient time to take this test. The CPT is not timed, and it consists of three sections: reading comprehension, sentence skills and elementary algebra. Arithmetic or college-level math subtests may also be administered.

Florida's Board of Education requires that first-time-in-college students who are degree-seeking provide scores of an entry-level placement examination. The rule specifies that a student has to submit a CPT, SAT or ACT to meet this requirement. If a student presents valid SAT or ACT scores that meet or exceed the State minimum score requirements, he or she does not have to take the CPT. All scores presented must have been obtained within the past two years. To find out what minimum scores a student needs to be excused from taking the CPT, or for other reasons why a student may not be required to take the CPT, students are asked to call the campus Testing Department. This information may also be acquired by visiting the Testing Information Web site, accessed from MDC's Homepage (www.mdc.edu) by clicking on Current or Prospective students, and then, Testing Information.

If a student does have to take the CPT, he or she should take the Practice-CPT (known as "PASS") first. Taking the PASS will give the student a better idea of what to expect on the CPT.

Students whose English language proficiency is insufficient to be tested on the CPT will be given the College-approved alternative for placement into appropriate English as a Second Language courses. Upon completion of the English instructional curriculum, students will take the required CPT for further course placement.

If a student's scores on one or more of the subtests of the CPT fall below minimum passing scores established by the State Board of Education, he or she must enroll for at least one course in the College Preparatory program. In accordance with Florida law, students may use Adult Basic Education, Adult Secondary Education or private provider instruction as an alternative to traditional College Preparatory instruction.

Further evaluation may be conducted in classes, and 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.

The state requires agencies offering Vocational Credit Certificate programs (VCCP) to assess the basic skills level of students entering programs of more than 450 contact hours. MDC offers the Test of Adult Basic Education (TABE) for these vocational students. The minimum passing scores vary among the vocational programs, so a student must check with his or her advisor for these scores. A student must take the TABE within the first six weeks of admission into the program. Academic support labs are available to prepare students to take the TABE. If a student is enrolling in an Adult General Educational program, he or she also must take the TABE.

Adult Education students without English proficiency are given the College-approved alternate for placement into appropriate Adult or Vocational English of Other Languages (ESOL/VESOL program courses. Upon completion of the English instructional curriculum Adult Education students transitioning to vocational certificate programs will take the required TABE to determine program eligibility.

If a student has any questions regarding the TABE, including exemption from taking the test, he or she should contact the campus Testing Department. This information may also be acquired by visiting the Testing Information Web site, accessed from MDC's Homepage (www.mdc.edu) by clicking on Current or Prospective students, and then, Testing Information.

Students seeking entrance into the MDC School of Criminal Justice are exempt from the TABE testing requirement, but they are required to pass the Florida Basic Abilities Test (F-BAT). If a student has any questions regarding the F-BAT, he or she should contact the School of Criminal Justice. Students may also visit the F-BAT Web site, accessed from MDC's Homepage (www.mdc.edu) by clicking on Campuses, then North Campus, and then, F-BAT.

Bookstore

Bookstores are located at all of the campuses. Hours vary during the term and at each location, with longer hours in the early weeks of the semesters. Here are the locations and the phone numbers:

Carrie P. Meek Entrepreneurial Education Center: 305-237-1991, Room 1215 on the second floor.
Hialeah Campus: 305-237-8806, Room 1121, located in the Student Lounge, Room 1108, during the beginning of the term.
Homestead Campus: 305-237-5042/5043, located in Building F, Room F102, next to the Cafeteria.
InterAmerican Campus: 305-237-6019, 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 Center 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.
West Campus: 305-237-8953, Room 1243, located on the second floor.
Wolfson Campus: 305-237-3236, Room 2102, Building 2, located beside Fourth Street and near the Cafeteria.

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 going to purchase textbooks, a student should bring his or her schedule as the Bookstore is organized alphabetically by course abbreviation and by reference number (6-digit code identifying the class). If a student cannot locate textbooks, the professor's name or reference number is on the shelf tags. Also, 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% 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 non-refundable if opened; however if the student has all of the components of the package then a return may be done for a 25% 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 which 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% 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. By entering 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.

Career Services

The mission of Career Services at Miami Dade College is to assist students with their career planning, transfer and employment needs.

Career Services serves students who are undecided about their academic programs as well as those seeking career direction and vocational counseling. Through the use of career assessments and occupational information students are provided with assistance in clarifying their occupational and educational goals. Career related events, including seminars and career decision-making workshops, are scheduled throughout the academic year.

Career Services also provides information on transfer options and transfer assistance to students wishing to continue their education upon completion of their programs at the College. Students are able to meet with admission 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 Career Services.

Additionally, Career Services assists students and alumni with job readiness through a comprehensive employability skills program which includes workshops, seminars and job-shadowing opportunities. 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 and internship opportunities via the College's on-line employment system.

Class Schedules

Although the College tries to accommodate every student through a wide array of course offerings, no guarantee can be made that a student will be able to get his or her desired class schedule. Registering early is the student's best method for achieving a schedule compatible with individual needs. Once registered, the schedule of a student's classes is printed. This document also includes financial information about tuition/fees due or paid. It is advised that the student keep this schedule handy for the entire term. Students often need to refer to their schedule for important information.

College Level Academic Skills Test (CLAST)

In Florida, the state Board of Education maintains "minimum and uniform standards of college-level communication and computation skills" as a means of ensuring quality in higher education systems. Before a student can receive an Associate in Arts degree or advance to the upper-division of the State University System, he or she must demonstrate competence in English language, reading and mathematics.

Students can demonstrate competence in these skills by achieving minimum grade point averages in specific college level courses, or by achieving scores on the SAT or ACT which meet or exceed the minimum requirements. (The Advisement Office can tell students what the current minimum GPA and scores are.) If a student's GPA (or SAT or ACT scores) does not meet the minimum requirements, he or she can take the College-Level Academic Skills Test (CLAST). Passing scores on the various subtests are determined by the state board and vary according to when a student first took the examination. Current passing scores are: Reading, 295; English, 295; Mathematics, 295 and Essay, 6.

Students are permitted to take the CLAST only after they have completed 18 college credits. For the English language skills, reading and essay subtests, students must have successfully completed ENC 1101. For the mathematics subtest, students must have passed one college-level mathematics course (excluding MAT 1033, QMB 2100, and MTG 2204). If a student has passed all portions of the entry-level placement examination (the CPT), then he or she does not have to pass ENC 1101 (or a math class) before taking the CLAST.

Students may use CLAST alternatives to satisfy the graduation requirement. Note that successful CLAST scores or an optional approved examination are necessary for admission into a College of Education program.

Students may retake any CLAST subtest until a passing score is obtained, but must follow CLAST prescriptions guidelines before retaking a subtest for the third (or higher) attempt. If a student has taken and failed any subtest of the CLAST at least four times, a request for a waiver for that subtest may be initiated. Students should contact the Advisement Office for details. Disabled students may also request waivers for CLAST subtests. These students should see the ACCESS Department for details.

Students who do not meet the CLAST minimum score requirements on the four subtests, or who fail to meet one of the alternative requirements; will not be awarded the Associate in Arts degree. However, students who pass three of the four subtests may, if otherwise qualified for admission, enroll for up to 36 semester credits in upper-division courses at public universities in Florida. Once 36 credits are achieved, the student is required to pass the fourth subtest.

The CLAST is only offered three times per year, and Florida requires students to register by the deadline set for each test. Advisement and Counseling offices, as well as Testing Departments, have information about how and when to register for the CLAST. There is a computer version of the CLAST (CAT-CLAST) which may be taken at additional times, but there is an additional cost as well. The CLAST is available by com-

puter on the North, Kendall, Wolfson and InterAmerican campuses, but the essay subtests can only be taken on the three regular test dates. The fee for the CAT-CLAST is $30.00; the paper-and-pencil version is free for MDC students. Students may schedule appointments to take the CAT-CLAST according to the guidelines published by their Campus Testing Department.

If students have any questions regarding the CLAST, they should contact the campus Testing Department. Students may also visit the Testing Information website, accessed from MDC's Homepage (www.mdc.edu) by selecting Current or Prospective Students, and then, Testing Information.

Library and Media Services

The six Miami Dade College campuses, including the two outreach center libraries, have a combined book collection of over 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 twenty-four 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 education 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.

The campus Media Services Departments have over 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 on 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 Center Campus assists students as they transition from taking general education requirements at the other campuses to being admitted to programs at the Medical Center Campus.

Registration and Records

Registration is held each term on the dates scheduled by the campus Registration Office. Students may register for courses in person at the Registrar's Office. Students may also register via the Internet by going to the Current Students section of the College's Homepage (www.mdc.edu). The Registrar's Office is the designated custodian of all official academic records. The office maintains official student transcripts, processes final grades at the end of each term and updates student records with address, name and approved grade changes. It provides both official and unofficial copies of student transcripts to students, or to institutions or agencies upon request from students. The College also participates in the electronic transmission of student transcripts (to other participating institutions). Transcripts can be ordered online by students through the MDC Website.

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, and financial aid), service accommodations (readers for blind persons, interpreters for deaf students, and note takers), and technological aids (adaptive technology, special equipment, and special testing accommodations). Tutoring and/or specialized classes 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 the CLAST or TABE tests. Students may find out about additional services (and eligibility for these) by calling the main number for each campus and asking for the department which provides services for students with disabilities.

Student Health Services

Miami Dade 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 the name of a person to contact in an emergency on the appropriate line of the application form. If that contact person changes while the student is attending the College, the student should update that information with 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 will offer 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 non-discrimination 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 limit or 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 taskforce 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 sticker affixed to their car's rear window. The parking sticker is issued upon acceptance to the College. Parking stickers are good for one year. Updated stickers are available from the Student Life Office 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 multi-story 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 Security (located

on the south side of Building 5000), or from the event's sponsor.

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

The Medical Center Campus operates a parking lot at Northwest 10th Avenue and 20th Street. This lot is equipped with electronic control arms monitored by Campus Patrol 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 Santa Clara 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 Patrols enforce traffic laws on campus. Identification is verified before entry to the lots.

The 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.

The 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.

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

Release of Student Information

Miami Dade College has a long-standing commitment to the concern for and protection of 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 State Department of Education, Division of Community College 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 US Public Law 93-380(FERPA), and Florida Statute §.229.782, students at Miami Dade 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 this right to inspect records which are maintained by the College on behalf of the student.

There are three distinct categories of records: (1) Directory Information Records, (2) Limited Access Records, and (3) Sole Possession Records.

(1) Directory Information, which may be made public, includes the student's name, last known address, telephone number, date and place of birth,

major field of study, participation in officially recognized activities and sports, weight and height of athletes, degrees and awards received. The office of the Dean of Student Services or designee will only release this information 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.

(2) Limited Access Records pertain to the permanent academic records of the student, disciplinary records, financial information and testing data. This category also covers all records maintained officially by the College, which do not come under the categories of Directory Information, or Sole Possession Records. The College will not release information in Limited Access Records without written permission of the student or parent, except as provided by law.

(3) Sole Possession Records pertain to records of instructional, supervisory, and administrative personnel, which are in the sole possession of the maker and are not accessible or revealed to any other person except their designated substitute. Additional details concerning the release of student information, including exceptions, challenges to the content of records and related matters, may be obtained by consulting with the Dean of Student Services, the Registrar's Office, or designee, at any campus.

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 the Medical Center and InterAmerican campuses, and the Dean of Academic and Student Services at Homestead.

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, parking lots, cafeterias, and vending, copying and automatic teller machines, as well as for many additional services in the near future. Students with questions should see the Student Life Office at any campus for details.

Students@Rights and Responsibilities

A 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 State Rule 6A-14.56 and Florida Statutes §240.132, 240.133 and 877.13. This section concerns control and discipline of community 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 Security 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 Office to find out how to get involved. Descriptions for student organizations are listed in the Student Life Handbooks located at each campus. All students are encouraged to actively participate in clubs and organizations.

North Campus Pen Players and Kendall Campus Caravan 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, 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 regardless of their major, and in some cases students can receive college credit for participating in a music group. These groups present numerous con-

certs 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: for men, basketball or baseball; for women, 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 community 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-America 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 the 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 College newspapers, the Falcon Times at North, the Catalyst at Kendall, the Metropolis at the Wolfson Campus, and the Antidote Newsletter at Medical Center Campus, are under the guidance of advisors who work with student editors and staff members. The newspapers serve as the media for student expression on matters involving the curricular and extracurricular activities of the College. The newspapers also provide training for those interested in journalism.

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

Academic Regulations

Call us Essential ... Call us the College

MDC

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.

Students expecting an extended absence should notify the dean of students.

Audit

Students desiring to enroll in a course at Miami Dade, but who do not wish to receive a grade or credit for this 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% 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 as under audit status.

Auditing a class costs the same as enrolling for credit, and as an audit student it can be difficult to get a space in some classes.

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 and 17 credits. The Summer Term consists of two 6-week summer sessions (1st 6-weeks/2nd 6-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 6-7 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

"S" and "P" grades are not included in the cumulative grade point average (GPA) if the course number is below 1000 or above 9000. Credits for these courses are indicated on the transcript as credits registered and earned.

Final grades are available on the College's website 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 receive an AA or AS degree, or to qualify for entry into a bachelor's degree program, a student should have a minimum 2.0 GPA in all work attempted.

Repeating Courses

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

State rule 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 only be granted if the student petitions through the academic 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 cumulative GPA will be recomputed to count the last attempt only.

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 cumulative 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 ten 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 petition form at the Dean of Student Services Office.

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, 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) SOAP (Standards of Academic Progress) 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, but some experience difficulty. MDC alerts these students 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 aid.

When academic progress has not been satisfactory, the Standards require students to limit the number of credits for which

they register. At this time, the College provides special academic assistance. 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 performance by 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

Consequences of sustained poor academic performance are summarized below.

Credits Registered	GPA	Credits Earned	Result
7-16.9	less than 1.5	n/a	Academic Warning
17-29.9	n/a	less than two-thirds	Academic Warning
17-29.9	less than 1.5	n/a	Academic Probation
30-44.9	1.50-1.79	n/a	Academic Probation
30-44.9	n/a	less than two-thirds	Academic Probation
45 or more	1.5-1.99	n/a	Academic Probation
30 or more	less than 1.5	n/a	Academic Suspension
45 or more	n/a	less than two-thirds	Academic Suspension

Incomplete and audit grades are not calculated when determining whether 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 six credits in the second six weeks). This includes 3 credits of prescribed program intervention courses. This may include College Preparatory courses, a study skills course, career counseling or a combination of all three.

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 prescribed intervention courses. Students remain on "Academic Probation" until they maintain a 2.0 overall GPA and earn credit in two-thirds of half 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" represents a separation of students from Miami Dade College for at least twelve 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 credit in at least two-thirds of the courses for which he or she is registered), the student will be separated 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 be meeting "Standards of Academic Progress." Federal regulations state that students are eligible to receive financial aid benefits for up to 150% of the number of credits registered to complete the degree or certificate. After the 150% mark, benefits will terminate. This applies to all registered credits, including courses which 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% rule. Students who meet or exceed the 150% are no longer eligible to receive federal/state financial aid. For extenuating circumstances, students may appeal through the Petition for Financial Aid Waiver.

Standards of Progress for Veterans – A student receiving educational benefits from the U.S. Department of Veterans Affairs (VA student) must maintain satisfactory progress (cumulative GPA of 2.0 or better) at the end of any term. A VA student who does not have a 2.0 cumulative GPA at the end of a term will be placed on "Academic Probation" for the next two terms. If the VA student has not attained a 2.0 cumulative GPA by the end of the probationary period, the student's VA educational benefits will be terminated. After one term has elapsed, the student may petition the school to be re-certified for VA educational benefits. The student may be re-certified only if there is a reasonable likelihood that the student will be able to attain and maintain satisfactory progress for the remainder of the program. Veterans enrolled in Vocational Credit Certificate programs will have their VA benefits suspended if they accumulate three or more unexcused absences during any calendar month. An individual whose benefits are suspended for excessive absences may be reinstated once during a semester upon written permission of the instructor.

Suspension

By the act of registering at Miami Dade, a student agrees to abide by the "Student Code of Conduct" of the College. A student who violates the "Student 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

A student desiring to withdraw from a course after the first week of classes should initiate withdrawal procedures with the classroom instructor. Withdrawals are not official until the withdrawal (drop) card is completed and submitted to the Registrar's Office. Withdrawal deadlines are published in the official College calendar.

A reduction in course load may jeopardize a student's eligibility to participate in campus activities and athletics, or to receive financial aid and veteran's benefits. Student visa status may also contain course load stipulations.

The student may withdraw without academic penalty from any course by the mid-point in the semester. Withdrawals after the midpoint would be granted only through established institutional procedures.

Effective Fall Term 1997, State rule specifies that a student will be permitted a maximum of three attempts per course. Upon the third attempt, the student will not be permitted to withdraw and he or she will receive a grade for that course.

Administrative Withdrawal from Courses

As determined by departmental guidelines, faculty members have the right to withdraw a student from class due to excessive absences.

If students are withdrawn from a course because the class is cancelled, they should see an advisor about selecting another course. A full refund is automatically granted for canceled courses.

Withdrawal from College

In order to withdraw completely and officially from the College, a student must go through the following steps:

At North, Kendall, Wolfson, Inter-American, Homestead, Hialeah, and West campuses, students must complete an official withdrawal card and turn it in to the Registrar's Office. At Medical Center Campus, students must initiate the withdrawal procedure with the appropriate department chairperson. This representative will prepare an official withdrawal card. The student then clears with the library and turns in his or her withdrawal card to the Student Services Office.

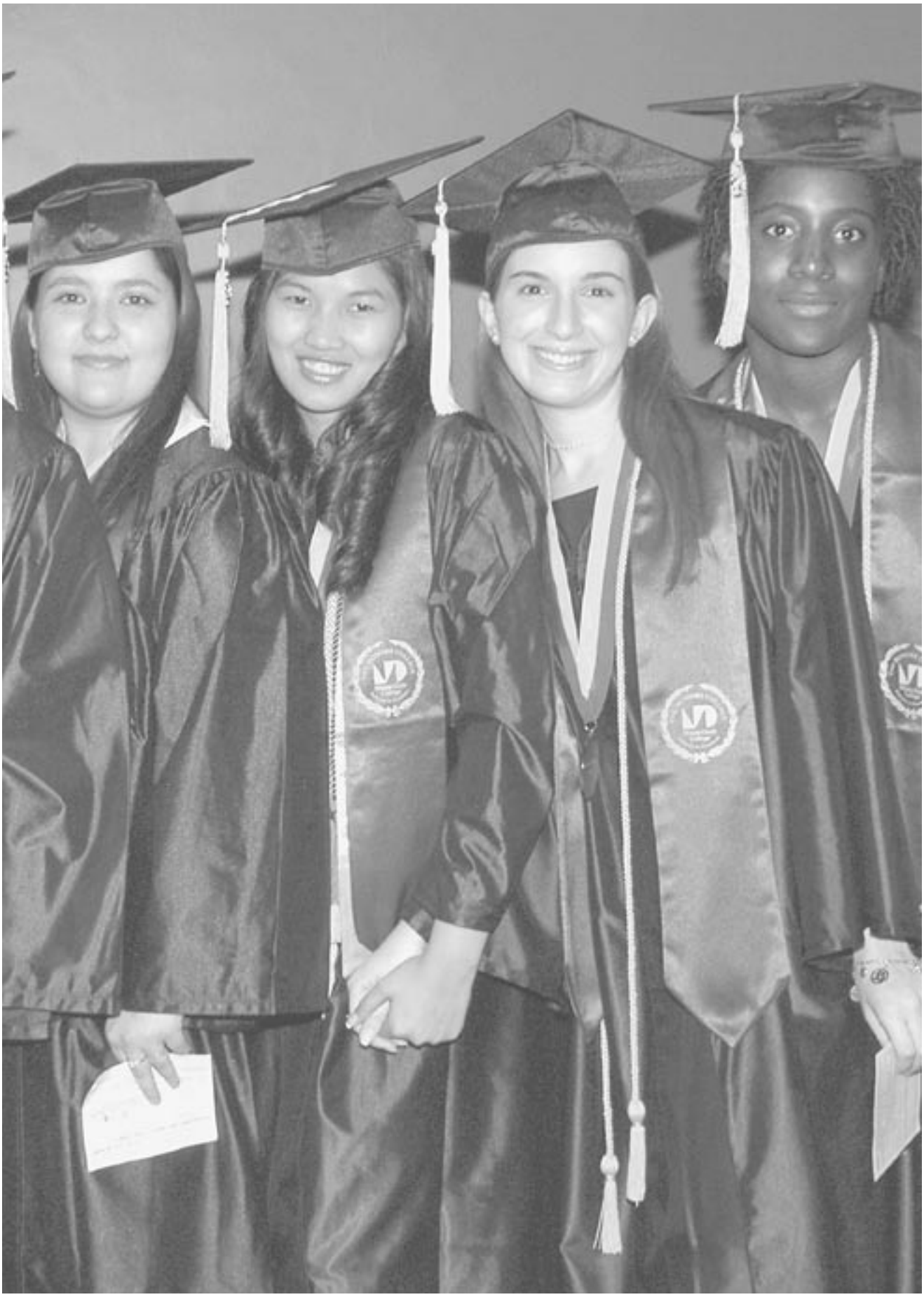
Failure to follow these steps may cause the student to fail courses unnecessarily, and in some cases may prevent the receipt of a refund.

If illness makes it impossible to return to campus, a letter to the Registrar's Office will initiate withdrawal.

Graduation Requirements and Transfer Information

Call us Essential ... Call us the College

MDC



Graduation Requirements and Transfer Information

Graduation Requirements

Miami Dade College awards the Baccalaureate Degree in Education, Associate in Arts, Associate in Science and the Associate in Applied Science degrees. MDC also offers college credit certificates, advanced technical certificates and vocational credit 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 year and term of entry to Miami Dade. Those requirements apply as long as the student continues to register for at least one term during any twelve-month period. If a student does not register for a period exceeding four terms, he or she is subject to the graduation requirements in effect for the year and term of reentry to the College.

State graduation requirements, like the College Level Academic Skills Test (CLAST) or a state-approved alternative for the Associate in Arts degree, apply to all students, regardless of whether the students have been continuously enrolled.

Requirements for All Associate Degrees

A. Complete at least 15 of the last 30 credits applied toward the degree at Miami Dade College.
B. Complete a minimum of 24 credits in discipline-related courses at Miami Dade College for Associate in Science degree programs.
C. Complete an application for graduation before the published deadline date. (See Academic Calendar)
D. Fulfill all financial obligations to the College.

Baccalaureate Degree

EDUCATION MAJORS (B.S.)

The Baccalaureate Degree in Education is designed for students entering the teaching profession.

Graduation Requirements for the Baccalaureate Degree in Education

The Baccalaureate Degree in Education will be awarded to students who meet the following requirements:

1. Recommendation of the faculty of the School of Education awarding the degree
2. Certification by the School of Education that all requirements of the degree have been completed
3. A minimum of 120 semester credit hours in acceptable coursework required for the Bachelor's degree
4. Completion of at least 30 semester credit hours at Miami Dade College
5. Completion of the General Education Requirements
6. A "C" or better earned in professional education courses and an overall GPA of 2.5
7. Passed all sections of the Florida Teacher Comprehensive Evaluations (General Knowledge, Subject Areas, and Professional examinations
8. Demonstrated competencies in all twelve (12) Florida Educators Accomplished Practices (FEAP)
9. Completion of 8-10 credits in one foreign language or American Sign Language. Students who have completed two years of high school foreign language study (in one language) are considered to have met the requirement. Students who have an A.A. degree from a Florida Community College or SUS institution prior to Fall Term, 1989, or who have maintained continuous enrollment in a Florida Community College or SUS institution since Fall Term, 1989, are exempt from this requirement. See Academic Programs (Page 59).

Please note that there maybe changes in these requirements based upon revisions in State Certification requirements. These changes might not be in place at the time of the publication of the catalog. Students should see their advisors for clarification.

PUBLIC SAFETY MANAGEMENT (B.A.S.)

Note: Program has been state approved. Further information can be found on the Errata sheet at the MDC Web site.

Associate in Arts Degree

The Associate in Arts degree is designed for students wishing to transfer to upper-division universities.The areas of concentration parallel university coursework and prepare students to enter the junior year at four-year upper-division institutions. Students who have already earned a Baccalaureate degree will not be awarded an Associate in Arts degree.

Requirements for an Associate in Arts Degree

The Associate in Arts degree will be awarded to students who meet the following requirements:

1. Complete 60 credits in courses numbered 1000-2999 that are eligible for inclusion in the Associate in Arts degree, including a prescribed 36-credit program of general education
2. Earn a minimum 2.0 cumulative grade point average (GPA) in all courses attempted at Miami Dade College or elsewhere (excluding courses not eligible for inclusion in the Associate in Arts degree)
3. Earn a "C" grade or better in all of the general education courses, as defined except for the required general education elective
4. Present passing scores on the Florida College Level Academic Skills Test (CLAST) or meet state approved alternative criteria.

Students should be aware that credits earned in excess of the 60 credits required for graduation may not be accepted for transfer by upper-division universities.

Foreign Language Requirements for University Admission

Transfer students must have a minimum of two consecutive years of foreign language study in order to be admitted to the upper-division of a state university. This requirement necessitates sequential study in one foreign language, but it may be fulfilled by two years of high school study, or by eight to ten semester credits of college coursework. (Note: American Sign Language will satisfy the foreign language requirement.) A student whose native language is not English is exempt from this admissions requirement provided the student demonstrates proficiency in the native language.

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 state university, the student must successfully complete the College Level Academic Skills Test (CLAST) or meet state-approved alternative 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

General Education

The Purpose of General Education

Sound academic study has its foundation in "General Education." The "General Education" program provides students with the opportunity to acquire the knowledge, skills and attitudes that are fundamental to every individual's effort to have a more satisfying life and to function as a more effective citizen. The "General Education" program has many values for students:

1. A "General Education" enables students to integrate their knowledge so that they may draw on the many sources of learning in making decisions and taking action in daily situations.
2. A "General Education" encourages students to make a commitment to a lifetime of learning.
3. A "General Education" assists students in achieving their full potential.
4. A "General Education" helps students find value in the activities and experiences of their lives and to make effective use of their leisure time.
5. A "General Education" opens students to new ideas and assists them in understanding their society and culture.

Students have the opportunity to develop interests in many areas of the arts and sciences. When interests become focused on a specific goal, the student is ready for a smooth transition to a specialized program.

General Education Goals

Miami Dade has adopted the following goals as the basis for the "General Education" requirements:

1. Students will be able to speak, listen, write and read competently and in an organized and critical manner.
2. Students will be able to communicate effectively with individuals in the different aspects of their lives.
3. Students will be able to carry out computations necessary to producers and consumers in society.
4. Students will be able to use systematic, critical and creative processes, drawing from knowledge of appropriate disciplines, to identify problems, analyze alternate solutions and make decisions, including the application of basic computer technology.
5. Students, based on their knowledge of themselves, will develop the capability for self-direction.
6. Students will know the major aspects of the biological, psychological and social natures of man.
7. Students will be able to do what is necessary to develop and maintain their physical and mental health.
8. Students will develop the capability for making worthwhile use of their leisure or discretionary time.
9. Students will assess the impact of prejudices on their attitudes and behaviors.
10. Students will develop appreciation for and find value in participating in aesthetic and creative activities; they will have knowledge of the major areas of human self-expression, especially those related to the reflection of the human spirit in aesthetic forms and humanistic ideas.
11. Students will analyze and assess their personal values and their life goals in order to integrate these with their decision-making.
12. Students will investigate career choices that are compatible with their abilities, interests and opportunities.
13. Students will set educational objectives in view of their tentative or definite career choices and non-career pursuits.
14. Students will be aware of their responsibility for continued learning throughout their lives.
15. Students will know the characteristics of effective interpersonal relationships and will assess their interpersonal skills.
16. Students will apply principles of interpersonal skills in order to make their own human relationships, especially in the family or another primary group, more mutually satisfying.
17. Students will analyze how groups function, within and apart from organizational structures and will assess their own skills in working with groups.
18. Students will know characteristics of the cultures of other ethnic and racial groups, and will assess their own ability to establish positive rela-

tionships with individuals who have different ethnic and racial identities.
19. Students will know and appreciate major accomplishments of various cultures and will evaluate their impact on contemporary society.
20. Students will know significant philosophies and life styles which societies and individuals have adopted and will assess their relevance to themselves and to society.
21. Students will know major ideas and events which have shaped United States society as compared and contrasted with other societies.
22. Students will know the organization and functioning of United States society and will apply their knowledge of social principles as enlightened individuals.
23. Students will know the basic components, structures and functioning of natural phenomena.
24. Students will have knowledge of the philosophy of science and of principles that are basic to scientific inquiry and research.
25. Students will analyze human interaction with the natural environment, will assess the quality of their local environment and will assume responsibility for their personal impact on the environment.

General Education Requirements for the Associate in Arts Degree

To receive an Associate in Arts degree, 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:

GENERAL EDUCATION REQUIREMENTS FOR THE ASSOCIATE IN ARTS DEGREE

1. **COMMUNICATIONS** (6 credits)
*ENC 1101 English Composition 1
*ENC 1102 English Composition 2

2. **ORAL COMMUNICATIONS** (3 credits)
*ENC 2106 Advanced Communication Skills
*LIT 2480 Issues in Literature and Culture
*SPC 1026 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 majors in Architecture, Art, Dance, Interior Design or Music should choose courses for their respective major identified under the "Majors Only" 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)

Majors Only

*ARC 2701 History of Architecture 1 *(Architecture majors only; dept. permission required)*
*ARH 2050 Art History 1 *(Art majors only; dept. permission required)*
*IND 1100 History of Interiors 1 *(Interior Design majors only; dept. permission required)*
*MUH 2111 Survey of Music History 1 *(Music majors only; 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

Majors Only

*ARC 2702 History of Architecture 2 *(Prerequisite: ARC 2701; Architecture majors only; dept. permission required)*
*ARH 2051 Art History 2 *(Prerequisite: ARH 2050; Art majors only; dept. permission required)*
*DAN 2130 Dance History 2 *(Dance majors only; dept. permission required)*
*IND 1130 History of Interiors 2 *(Prerequisite IND 1100; Interior Design majors only; dept. permission required)*
*MUH 2112 Survey of Music History 2 *(Prerequisite: MUH 2111; Music majors only; 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
PPE 1005	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 credits from Life Sciences and 3 credits from Physical Sciences, excluding labs.
Life Sciences (3 credits)

BOT 1010	BSC 1084	HUN 1201
BSC 1005	BSC 2010	OCB 1010
BSC 1007	BSC 2020	PCB 2033
BSC 1030	BSC 2085	PCB 2340C
BSC 1050	BSC 2250	ZOO 1010

Physical Sciences (3 credits)

AST 1002	MET*	PSC 1121
CHM*	OCE*	PSC 1515
GLY*	PHY*	

* = any course with this prefix (excluding labs)
Majors in one of the natural sciences, architecture, engi¬neering, nursing and allied health programs should select the appropriate sequence of courses beginning with one of the following:

BSC 2010	CHM 1045	PHY 2048
BSC 2085*	CHM 2032	PHY 2053
CHM 1033		

* = 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	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	WOH2012
EEX2000	LIT 2120	WHO 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, Z00, HUN 1201, PCB 2033** or linked lab
•Any **MAC, MAD, 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 in a major field that satisfies statewide general education requirements:

ACG 2021	EDF 1005	REL 2300
AMH 2010	LIT 2120	PSY 2012
ANT 2410	PHI 2010	STA 2023
ARH 1000	PHY 2048	SYG 2000
CHM 1045	POS 2041	THE 2000
ECO 2013	POS 2112	

•Any Foreign Languages course at the 2000 level.
•Sign Language: **SPA 2614C** or **SPA 2615C**

8. **COMPUTER COMPETENCY TEST/ COURSE BY 31ST CREDIT**
By the 16th earned college level credit (excluding EAP and college preparatory courses), a student must take the computer competency test and **pass.**
OR
By the 31st earned college level credit (excluding EAP and college preparatory courses), a student must **pass** CGS 1060, an equivalent continuing education or vocational credit course or retest with a **passing** score on the computer competency test.

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

Adoption of the rule revisions by both the State Board of Education and the Board of Governors will relieve the burden of "counting words" (Gordon Rule) for institutions and ease student transfer across institutions while maintaining high standards for the completion of the general education requirements.

(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 of 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) and (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, 12-18-2005.

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 and earn a minimum of a "C" grade:

Communications
ENC 1101 English Composition 1
Oral Communications
SPC 1026 Fundamentals of Speech Communications
Humanities
PHI 2604 Critical Thinking and Ethics
Behavioral Sciences
PPE 1005 Psychology of Personal Effectiveness
Math/Science (any 3 credits excluding labs):
Math
MAC • MAP • MGF • QMB • MAD • MAS • MTB • STA
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.

Computer Competency Test/ Course by 31st credit

By the 16th earned college level credit (excluding EAP and college preparatory courses), a student **must** take the computer competency test and **pass**.

OR

By the 31st earned college level credit (excluding EAP and college preparatory courses), a student must **pass** CGS

1060, an equivalent continuing education or vocational credit course or retest with a **passing** score on the com¬puter competency test.

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 College Preparatory courses.

Advanced Technical Certificate Program

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.

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 degree. See pages 119 and 120 for a description of College Credit Certificate programs.

Vocational Credit Certificate Programs

To receive a Vocational Credit Certificate, students must successfully complete all courses specified within the program, meet the language and computational skills required for the particular program and apply for graduation.

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 – 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 which do not satisfy degree requirements).

In addition, special designations are entered on transcripts of students awarded an Associate in Arts or Associate in Science degree as follows:

Honors

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

Highest Honors

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

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 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

Students who have been initiated into Phi Theta Kappa, the International Honor Society of the Two-Year College, will have this noted on their transcript. To be eligible for induction into Phi Theta Kappa, 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.

Transfer Information

Students who have been awarded the Associate in Arts degree may transfer to an upper-division institution (public or private) to complete the Baccalaureate degree. A limited number of Associate in Science degree programs may also transfer to specific institutions if other requirements are met.

Campus Career Centers 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 Career Center.

Articulation

Articulation is a system designed to provide for smooth movement of students from high school, through the community college system and into the Florida State University System. There are a number of types of articulation agreements which create special opportunities for students.

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.

State of Florida Articulation Agreement

If a student graduates from a Florida public community college with an A.A. degree, the Articulation Agreement guarantees, within certain limitations, that he or she will receive priority admission into a state university. The Articulation Agreement also guarantees that the general education and elective courses students take at MDC will all be accepted as transfer credit. This ensures that students will enter the state university as juniors.

However, each university has some programs with admission limits or additional requirements. These are designated as "limited access programs," and they require higher grade point averages or other specific criteria for admission at the junior level. Students are advised to contact the program director at the university well before completion of the A.A. degree (or applicable A.S. degree) to obtain the list of admission requirements.

If a student attempts to transfer to a Florida state university without first completing the A.A. degree (or applicable A.S. degree), that university will expect the student to meet the same admission requirements as high school seniors applying for freshman admission. These admission requirements are based on (1) high school graduation (2) GPA in high school academic core courses (3) admissions test scores, and (4) course distribution requirements. Moreover, the state university may require a student to take additional courses. The classes the student took at MDC will be reviewed individually and will not automatically transfer if the student did not complete the A.A. degree.

These "Two-Plus-Two" articulation policies encourage students to attend public community colleges as their starting point for higher education, but students need to complete the A.A. to benefit from the agreements. As established in Section 1007.23, Florida Statutes, and State Board of Education Rule 6A-10.024, the Articulation Agreement states that "every Associate in Arts graduate of a Florida community college shall have met all general education requirements and must be granted admission to the upper division of a state university except to a limited access or teacher certification program or a major program requiring an audition."

Independent Colleges and Universities of Florida (ICUF)

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

Additional Agreements

In addition, Miami Dade College has developed several unique arrangements with local and out-of-state colleges and universities that make it possible for a student to apply for admission toward a Baccalaureate degree. As a general rule, participating institutions will accept Associate degree credits and work out a schedule for the additional Bachelor's degree requirements. Agreements have been signed with the following institutions:

1. Barry University, Miami, FL*
2. Berklee College of Music, Boston, MA
3. Bethune-Cookman College, Daytona, FL*
4. California State University, Dominguez Hills, Carson, CA
5. Canisius College, Buffalo, NY
6. Capella University, Minneapolis, MN
7. Carlos Albizu University, Miami, FL
8. CIBERTEC- Univ. Peruana de Ciencias Aplicadas, Peru
9. Clearwater Christian College, Clearwater, FL*
10. Cleveland Chiropractic College, Los Angeles, CA
11. Drexel University, Philadelphia, PA
12. Eckerd College, St. Petersburg, FL
13. Embry-Riddle Aeronautical University, Daytona, FL*
14. Flagler College, St Augustine, FL*
15. Florida College, Temple Terrace, FL*
16. Florida A & M University (FAMU), Tallahassee, FL (Electronics Engineering Technology)
17. Florida Atlantic University (FAU), Boca Raton, FL (Engineering Consortium, Geographic Information Systems)
18. Florida Institute of Technology, Melbourne, FL*
19. Florida International University (FIU), Miami, FL (A.S. to B.S. Agreements: Business Management, Electronics Engineering Technology, Nursing, Hospitality Management) (Architecture, Engineering Consortium)
20. Florida Hospital College of Health Sciences, Orlando, FL
21. Florida Memorial College, Miami, FL*
22. Florida Southern College•
23. Georgia Institute of Technology, Atlanta, GA
24. Indiana University, Bloomington, IN
25. International College, Naples, FL*
26. Jacksonville University, Jacksonville, FL*
27. Kettering University, Flint, MI
28. Long Island University/C.W. Post, Long Island, NY
29. Lynn University, Boca Raton, FL*
30. Michigan State University, East Lansing, MI
31. Mount Holyoke College, South Hadley, MA
32. Nova Southeastern University, Ft. Lauderdale, FL*
33. Palm Beach Atlantic College, West Palm Beach, FL*
34. Parsons School of Design, New School University, New York, NY
35. Pine Manor College, Chestnut Hill, MA
36. Polytechnic University of the Americas, Miami, FL
37. Ringling School of Art and Design, Sarasota, FL*
38. Rollins College, Winter Park, FL*
39. Smith College, Northampton, MA
40. Southeast Florida Engineering Education Consortium - FAU & FIU
41. Southeastern College, Lakeland, FL*
42. St. Leo College, St. Leo, FL*
43. St. Peter's University, Jersey City, NJ
44. St. Thomas University, Miami, FL*
45. Stetson University, Deland, FL*
46. The University of Tampa, Tampa, FL*
47. University of Bridgeport, Bridgeport, CT
48. University of Florida, Gainesville, FL (Engineering)
49. University of Miami, Miami, FL (Engineering)
50. University of Phoenix, Phoenix, AZ
51. University of South Florida (USF), Tampa, FL (B.S. in Education with Technology Education Certif.)
52. University of Texas-Pan American, Edinburg, TX
53. University of Wisconsin-Madison, Madison, WI
54. U.S. Department of Agriculture
55. Walden University, Minneapolis, MN
56. Warner Southern College, Lake Wales, FL*
57. Webber College, Babson Park, FL*

* Independent Colleges and Universities of Florida (ICUF) – institutions that participate in articulation agreement with the State Board of Community Colleges.

For additional information relating to articulation agreements, contact the Academic Advisement Department, the Honors College, the Career/Transfer Center at the campuses, or the District Office of School and College Relations.

Academic Programs

Call us Essential ... Call us the College

MDC


OLD NAVY

Baccalaureate Degree in Education

The Miami Dade College School of Education, through a dynamic and prepared faculty, offers academic programs to prepare teachers for the classrooms of the 21st century. Baccalaureate programs are approved by the Florida department of Education.

- The Exceptional Student Education major prepares students to teach in Exceptional Student Education classes in Kindergarten through grade 12;
- The Secondary Mathematics Education major prepares students to teach in middle schools and high schools; and
- The Secondary Science Education major prepares students to teach in middle schools and high schools. These programs are designed to prepare students to gain the knowledge, skills, and dispositions that will enable them to be effective teachers. Programs have been designed to meet professional standards including certification requirements that will allow program graduates to become teachers immediately after graduation. Students in the baccalaureate programs are required to complete the Student Teaching component, this culminating activity consisting of an internship in a school setting under the supervision of a clinically-trained educator.

Admission Requirements for the Baccalaureate Programs

Requirements for admission to junior standing in the School of Education include:

- Passing scores on the CLAST or General Knowledge (GK) Test. Waivers or exemptions are permitted for CLAST if GK scores are presented for admission. For more information about CLAST or GK, visit the Testing Office at one of the MDC campuses.
- Completion of an A.A. degree from a regionally-accredited community college or at least 60 semester credit hours of postsecondary education from an accredited college or university.
- 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 Common Education prerequisites:
  - o EDF 1005 Introduction to Education
  - o EDG 2701 Teaching Diverse Populations
  - o EME 2040 Introduction to Technology
  - o Grades in these three courses must be no lower than "C".
- Applicants must agree to submit to and clear background checks by the Florida Department of Law Enforcement (FDLE) and the Federal Bureau of Investigation (FBI). These 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.

Prospective students are advised to ask the School of Education for current information regarding specific programs of interest. Effective curriculum, a dynamic faculty, a supportive administration and a caring staff are in place to assure that students meet with success.

EDUCATOR PREPARATION INSTITUTE (EPI)

The Miami Dade College School of Education offers a Florida Department of Education approved program for individuals with Bachelor's or higher degrees in fields other than education, to complete requirements that will lead to teacher certification in Florida.

Associate in Arts Degree

A.A. Degree Programs

Miami Dade College offers Preparatory Courses for a wide range of majors for the Associate in Arts degree. These prepare 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 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.

Students who have determined which profession or major they plan to pursue should become familiar with the requirements of the upper-division universities. 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 degree courses.

Each area of concentration 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. All general education requirements are included. Students should be aware that credits earned in excess of the 60 credits required for graduation might not be accepted for transfer by the upper-division university.

Note: The AA degree does not prepare students to be eligible to take certification/licensure exams or to practice in the healthcare professions.

A.A. Degree University Parallel Programs

Accounting

This program offers fundamental instruction in accounting and related subjects (such as economics or business). Students who wish to become an accountant may transfer to senior colleges or universities that offer baccalaureate degrees in accounting. Accountants work in a variety of settings such as corporations, small businesses, financial institutions and government agencies.

For further 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 further 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 majoring in anthropology should plan to obtain the Ph.D. degree to fully succeed in the field.

For further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Architecture

This program 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 further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Area and Ethnic Studies

The undergraduate major 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 (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 further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Art or Art Education

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

For further 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 further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Pre-Bachelor of Arts

The Pre-Bachelor of Arts program at MDC is designed for students who seek a general degree program and greater free-

dom to explore intellectual fields of their particular interest. This program challenges students to assume major responsibility for the direction of their own education. The program also provides a broader range of educational opportunities than in specialized programs. At the upper division, a major theme or area of concentration is usually required.

For further 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 program provides the first two years of a four-year curriculum for students planning to major in biology, botany, zoology, marine biology, ecological studies or microbiology. Biology majors may also enter professional schools in medicine, dentistry, veterinary medicine, optometry or podiatry.

For further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Building Construction

This program 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 further 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 further 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. is a science and math-intensive program, that includes courses in 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 further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Computer Arts Animation

This program 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 television and film.

For further 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 transfer to four-year institutions and major in computer information systems, computer and information sciences, information sciences, or management information systems. Degrees lead to careers in systems analysis, computer application programming, database management, network services and IT support.

For further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Computer Science

As the name suggests, Computer Science is a more science-intensive program than CIS. In addition to courses in programming and applications, the program 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 further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Criminal Justice Administration

In addition to coursework focusing on criminal justice and law, this program includes classes in history,

sociology and political science. Thus, pre-law students will find this program suitable, as well as those seeking Bachelor's degrees in criminal justice. This program may lead to careers in law enforcement, corrections (including probation and parole), and security in private businesses or government.

For further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Dance

Studio classes feature modern dance and ballet, and the program also includes theoretical courses. This curriculum meets the pre-professional and general education course requirements for transfer, but students should meet with an advisor to discuss the specific requirements of the four-year institution they plan to attend. Often, departments in four-year institutions will require an audition. This program is designed to prepare students pursuing careers in choreography or the performance of ballet and jazz or contemporary forms of dance. The program is also suited for students wishing to become teachers of dance.

For further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Dietetics

This program provides the science education needed to transfer to a four-year program in dietetics. Chemistry, biology, anatomy and physiology are emphasized in this program. 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 further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Drama or Drama Education

This is a comprehensive program in all aspects of theatrical production, including lighting, costuming, make-up and other aspects of stagecraft. Students participate in stage productions which are presented to the public throughout the academic year. While this program 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 further 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. program 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 further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Engineering

Miami Dade College offers ten Engineering A.A. programs: 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 further 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 program also includes education courses to prepare students for careers as teachers. However, students who graduate with a Bachelor's degree in English are equipped to work in publishing, and may be qualified to work as a writer in virtually any field.

For further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Environmental Studies

Environmental Studies examines environmental issues from both ecological and sociological standpoints. Thus, it is an interdisciplinary major which 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 in the 21st century, as the need for environmental researchers, analysts, engineers and journalists will grow.

For further 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 program 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 further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Foreign Languages

Foreign language programs train students to achieve reading, writing and verbal fluency in one or more foreign languages. The demand for interpreters, translators and language instructors is projected to grow in the 21st century, and graduates with Bachelor's degrees can work almost anywhere in the world for corporations, businesses, governments non-profit agencies or schools.

For further 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 further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Geology

Geologists study the structure, composition and history of the Earth. This

program 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 further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Graphic or Commercial Arts

Graphic Arts emphasize studio courses in design, drawing and digital techniques. Graduates may work in advertising agencies, design studios, exhibit and display businesses, department stores and industrial organizations.

For further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Health Services Administration

This program provides the fundamental science coursework for transfer to a baccalaureate program in health services administration. The Baccalaureate degree prepares students for entry-level management positions in health services delivery organizations. Persons licensed in clinical health often pursue this degree, as do medical care professionals who do not have an undergraduate degree. The Baccalaureate also prepares individuals for graduate study in this field.

For further 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. Depending on the area of specialization, history may examine political events, social evolution, cultural developments or a combination of these. The two-year program at MDC prepares students for transfer with courses in American, African-American and Latin American history, and surveys of American, English and world literature. Professional historians (e.g. museum curators and educators) tend to pursue the Doctoral degree, but the Bachelor's degree in history can prepare students for graduate work in law or political science, and apply to careers requiring good writing or analytical skills.

For further 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 tourism, travel and hospitality industries. Careers in the hospitality/travel and tourism industry 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 further 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, available in professional, institutional and private settings.

For further 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, a major which usually includes political science and economics courses. Employment opportunities are available at the baccalaureate level in business, government, journalism and political organizations. Many students, however, go on to pursue graduate work or law school.

For further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Landscape Architecture

The A.A. 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 further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Pre-Law

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

For further 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 further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Mathematics

The Mathematics A.A. emphasizes math and science training, and includes coursework in computer programming. Mathematics is both a science and a tool essential for many kinds of work in industry and business. As a result, employment opportunities for graduates trained in mathematics have expanded rapidly in industries such as aviation and communications, sciences such as oceanography and meteorology, and government agencies such as the U.S. Census Bureau.

For further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

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

The A.A. degree does not prepare students to be eligible to take certification/licensure exams or to practice in the Medical Science, Dentistry or Physician's Assistant professions. This program 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 program enables the student to transfer to colleges or universities that offer a Baccalaureate degree in physician's assistant (PA), or other pre-medical degrees such as biology. Admission to a professional school is dependent upon academic coursework and scores on a national test. Applicants should have a minimum "B" average.

For further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Pre-Medical Technology

The A.A. degree does not prepare students to be eligible to take certification/licensure exams or to practice in the Medical Technology profession. This program provides the science coursework necessary to transfer to a four-year baccalaureate program. Students must transfer to an upper-division institution for the third year. Generally, the fourth year is spent in a clinical setting, usually in a hospital where students learn laboratory techniques. Members of this profession work in clinical laboratories performing the wide variety of tests which aid physicians in the diagnosis and treatment of patients. Most medical technologists work in hospitals, physician's public health laboratories, universities, or in industry.

For further 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 as well as be a skilled performer. Careers in music include individual and group performance, conducting, composing and teaching. Music graduates may also have jobs working in ancillary professions such as retail, publishing and recording.

For further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Pre-Nursing

The A.A. degree does not prepare students to be eligible to take certification/licensure exams or to practice in the Nursing profession. This program includes the pre-professional courses necessary for admission to a Bachelor of Science degree program in nursing (BSN). The first two years at the community college level consist of general education and science courses. The professional nursing courses are taken in the last two years at the upper division. Upper-division programs are limited access, require an above average academic record, and have widely differing pre-professional course requirements. Therefore, students are advised to check with the Nursing Department of the senior institution they wish to attend. Most upper-division programs also offer a track for registered nurses (RNs) completing an Associate in Science degree to earn a BSN degree.

For further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Pre-Occupational Therapy

The A.A. degree does not prepare students to be eligible to take certification/licensure exams or to practice in the Occupational Therapy profession. The A.A. 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 further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Pre-Optometry

The A.A. degree does not prepare students to be eligible to take certification/licensure exams or to practice in the Optometry profession. This program pro-

vides the fundamental science coursework necessary to transfer to a four-year institution, where students can obtain a degree in an appropriate field, such as biology. To be an optometrist, one must earn the Doctor of Optometry professional degree. A bachelor's degree with a strong science background is required for admission. Graduates must pass a state licensure exam in order to practice.

Optometrists prescribe glasses, contact lenses and visual therapy, and offer non-surgical treatment of eye diseases and the rehabilitation of patients with visual disabilities.

For further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Pre-Pharmacy

The A.A. degree does not prepare students to be eligible to take certification/licensure exams or to practice in the Pharmacy profession. The Pre-Pharmacy program 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 are the only in-state institutions that offer the Baccalaureate and/or Doctorate in this field.

For further 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 analytic skills.

For further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Physical Education Teaching and Coaching

This program 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 further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Pre-Physical Therapy

The A.A. degree does not prepare students to be eligible to take certification/licensure exams or to practice in the Physical Therapy profession. This program 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 in planning a program of tudy. Physical therapists help rehabilitate individuals who have been disabled by injury or disease. They usually work in healthcare settings such as hospitals or nursing homes.

For further 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 A.A. coursework 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 further 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. program 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 further 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. A.A. coursework 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 Doctorate or a Masters' degree include teaching or counseling in a wide variety of settings.

For further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Public Administration

This is an interdisciplinary program gearing the combined study of business, government and economics toward a career in the public sector. Although some students pursue graduate degrees, those with Bachelor's degrees may obtain work managing budgets, or developing programs and policies in government, education and non-profit settings.

For further 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 curriculum meets the pre-professional and general education course requirements for transfer, but due to variations in upper-division requirements, students should confer with an advisor. Recreation professionals often work in youth agencies, but may also develop

careers in industries such as healthcare, fitness, and travel and tourism.

For further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Religion

Religion majors 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 further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Social Work

This program 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 further 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 liberal arts topics such as literature, cultural anthropology, theatre appreciation and history, as well as introductory courses in sociology. Graduates with a Bachelor's degree can work within community organizations, government agencies and the criminal justice field. Many students go on to pursue graduate degrees and work in social policy, public administration, law, government or social services.

For further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Speech Pathology and Audiology

This program 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 further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Teaching

This program prepares students to major in 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. program. Students should work with an advisor to determine the appropriate coursework for transfer into their intended area of study. The Bachelor's degree in Education, 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 further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Pre-Veterinary Medicine

The A.A. degree 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 further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Associate in Science/Associate in Applied Science Degree

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. 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. 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 Center Campus only. See page 83.

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 degree is also available to the student planning to transfer to a senior institution after graduation from Miami Dade College. Please consult a business advisor about additional courses for such plans.

For further 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 graduate 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 further 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 theses skills qualifies the student for several specialties, such as, architectural drafting, cost estimating, material selecting, specification writing and preparing presentations, drawings & models.

For further 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 further 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 further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Biomedical Engineering Technology
Associate in Science

Total credits required for the degree: 64.

The Biomedical Engineering Technology program prepares students for employment as Biomedical Engineering Technicians/Technologists and in related occupations in health-related fields. The program also provides supplemental training for persons currently or previously employed in these occupations. The program focuses on the understanding and applying of concepts in electronics, in addition to troubleshooting techniques, to digital, microprocessor, or computer-based systems as they relate to medical devices. Assembly, installation, operations maintenance, calibration, trouble-shooting, repairing and elementary design on medical systems are taught using an integrated, applied and theoretical approach.

For further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

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

For further 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 earns the student entry into any university in the State University System as part of the A.S. to B.S. program.

For further 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 further 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 further 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 is to provide an opportunity to establish a basic foundation in computer applications. Graduates are prepared for positions as microcomputer support specialists, user support specialists, applications system specialists and computer information managers to meet the demands of today's automated offices. In addition, program objectives are designed to assist students in their development of interpersonal and communication skills required by office professionals.

For further 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 data processing applications. Graduates are prepared for positions as entry-level application programmers, programmer specialists, computer programmers and programmer analysts. There is only one A.S. program for Computer Programming and Analysis. Students may select one of the two options: Application Programming or Game Development Programming. The student will be awarded the Computer Programming and Analysis degree only once.

For further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Court Reporting Technology Associate in Science

Total credits required for the degree: 73.

The Court Reporting Technology program provides training for students who desire to enter the field of court reporting. Court reporters play an important part in the judicial process by providing an official record of court proceedings. They are employed by the court or work on a freelance basis and earn an excellent salary. Upon successful completion of the prescribed program of study, the student will earn an Associate in Science degree.

For further 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 Criminal Justice Technology: Basic Law Enforcement program is designed to provide competency for the diverse field of criminal justice. Upon successful completion of the courses within the program, the student will be awarded the Associate in Science in Criminal Justice Technology. There is only one A.S. program in Criminal Justice Technology. Students may select one of the three options available: BLE, Generic or Corrections, but the degree is awarded only once.

For further 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 Criminal Justice Technology program is designed to provide competencies for the diverse field of criminal justice. Upon successful completion of the courses within 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: BLE, Generic or Corrections, but the degree is awarded only once.

For further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Criminal Justice Technology: Generic Associate in Science

Total credits required for the degree: 64.

Upon completion of the Criminal Justice Technology program, the student will be eligible for the Associate in Science degree. The A.S. degree opens up entry-level non-sworn positions in local, state and federal agencies, i.e., juvenile justice, private security, law enforcement, corrections, probation and parole, detention centers and community-based intervention programs. There is only one A.S program in Criminal Justice Technology. Students may select one of the three options available: BLE, Generic or Corrections, but the degree is awarded to the student only once.

For further 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 four options listed below, but the A.S. in Database Technology will be awarded to the student only once.

For further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Dietetic Technician Associate in Science

Total credits required for the degree: 64.

The Dietetic Technician program is designed to provide technical competency for a career in dietetics in health care facilities. This program meets the requirements of the American Dietetic Association for Education of the Dietetic Technician. Supervised field experience is required in each of the three semesters to complement classroom instruction.

For further 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 which 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 further 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 program provides training for students who desire to enter the field of early childhood education. It combines classroom instruction and field work experience with an emphasis on developmentally-appropriate programming for young children. Within the program there is the option of earning a child development associate equivalency certificate. This option is designed for those students who intend to seek immediate employment in the field. Students who complete the A.S. Degree in Early Childhood Education may also earn the A.A. degree in Teaching (Pre-Elementary/ Early Childhood) with some additional courses.

For further 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 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 further 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 below, but the A.S. in Environmental Science Technology will be awarded to the student only once.

For further 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 prepares students to learn all aspects of the film industry through hands-on, production-oriented classes both in the studio and on location. Students can receive training in cinematography, lighting, audio recording and editing. High-end equipment is used by students to shoot and edit sound 16mm film. Students are also exposed to video and the business aspects of the industry.

For further 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. The Associate in Arts degree is also available to the student planning to transfer to a senior institution after graduation from MDC. Consult an advisor about which additional courses are included in that program. There is only one A.S. program in Financial Services. Students may select from one of the three options listed below, but the A.S. in Financial Services will be awarded to the student only once.

For further 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 further 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 Services program are given a broad understanding of all phases of funeral home operations as well as the public health responsibilities of the funeral director and embalmer. This Funeral Service program is accredited by the American Board of Funeral Service Education, Inc. (ABFSE), 3432 Ashland Ave., Suite U, St. Joseph, MO 64506, Office: (816) 233-3747, FAX: (816) 233-3793, e-mail: exdir@abfse.org, Web: www.abfse.org, approved by the Florida State Board of Funeral Directors & Embalmers and the Funeral Service Boards of most states. 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. Effective 2001-2, The Department of Funeral Sciences requires that all students must pass both sections of the International Conference of Funeral Service Examining Boards, Inc. exams 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 web site (www.abfse.org).

For further information please visit: https://sisvsr.mdc.edu/ps/sheet.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 in the printing and publishing industry. This A.S. degree may transfer to upper-division universities with a Bachelor's of Science degree in Graphic Arts or Graphic Communications. The degree will give students employability skills for 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 will have 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 make-up, imposition, electronic color retouching and presswork.

For further 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 program is designed to give creative students a rewarding and challenging career in the artistic field of printing, publishing, electronic communication and advertising. An art aptitude is required or supplemental classes may be taken. Miami Dade College's graphic department offers one of the most extensive electronic publishing teaching facilities in the United States. This A.S. degree may transfer to upper- division universities with a Bachelor of Science degree in Graphic Design. This degree will give students employability skills for the printing, publishing, electronic communication, design or advertising industries.

For further 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 further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Hospitality and Tourism Management Associate in Science

Total credits required for the degree: 64.

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

The Hospitality and Tourism Management program provides professional preparation for a career in the hospitality industry. Hospitality management is presented as a core curriculum with emphasis on hotel, cruise-line, resorts, conventions, and institutional management. An internship program is required to provide practical experience in the field of the student's choice. The Associate in Arts degree is also available to the student planning to transfer to a four-year institution after graduation from MDC. Consult an advisor about which additional courses are included in that program.

For further 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 that 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 further 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 further 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 web site design and programming for employment in commercial, industrial and government institutions. Graduates are prepared for positions as web technicians, web administrators, web site developers and web masters.

For further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Landscape Technology Associate in Science

Total credits required for the degree: 68.

The Landscape Technology program has two options: Design and Installation and Maintenance Technician. The program, with its two options, trains students to manage, and is designed for those who are seeking immediate employment. There is only one A.S. program in Landscape Technology and students may select one of the two options available (Maintenance Technician or Design and Installation Specialization). The Associate in Science degree will be awarded only once.

For further information please visit: https://sisvsr.mdc.edu/ps/sheet.aspx

Legal Assisting Associate in Science

Total credits required for the degree: 68.

The Legal Assisting program prepares students to obtain entry-level employment in law offices, government agencies, banks or business corporations. It also enables persons working in the field without a degree to upgrade their skills to become a qualified paralegal. The MDC LegalAssisting program is approved by the American Bar Association. The American Bar Association defines a paralegal or legal assistant as "a person, qualified by education, training or work experience who is employed or retained by a lawyer, law office, corporation, governmental agency or other entity and who performs

specifically delegated substantive legal work for which a lawyer is responsible." Paralegals cannot give legal advice, set fees, negotiate or represent clients in court as these activities involve the actual practice of law. Paralegals work under the supervision of attorneys and are not just "document preparers," working directly with the public.

Additional Information:

It is necessary to see an advisor prior to beginning the program and before registering each term. For more information please contact the Legal Assistant Program at (305) 237-7813 or visit our website at http://www.mdc.edu/wolfson/academic/LegalAssistant/default.asp

For further 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 non-profit institution and those presently employed in marketing but seeking advancement. The Associate in Arts degree is also available to the student planning to transfer to a senior institution after graduating from Miami Dade College. Consult an advisor about additional courses for such plans. There is only one A.S. program in Marketing Management. Students may select one of the five options below. The degree awarded to the student in Marketing Management will be awarded only once.

For further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx.

Music Business Associate in Science

Total credits required for the degree: 63.

The Music Business program is designed for students who intend to seek employment within the music business industry as an alternative to the strictly traditional Music degree program. The Associate in Science degree in Music Business combines a traditional music curriculum with industry-related courses and experiences. Music business majors will take courses in general academics, music business, music theory, sound engineering, music ensemble, marketing, small business entrepreneurship, accounting and computer applications. Students will undertake an internship at a professional firm involved in some facet of the music industry. The internship experience is an important bridge between academic preparation and career development. The Music Business curriculum includes copyright, publishing, artist development, the recording industry, sales, retailing, live concert promotion and management, preparing well-rounded graduates knowledgeable in all aspects of the music industry. There is only one A.S. program in Music Business. Students may select one of the three options listed below. The student will be awarded the Music Business degree only once.

For further 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, entry level security specialists and network systems analysts. There is only one A.S. program for Networking Services Technology. Students may select one of the three options (Microsoft, Cisco, or Network Security). The student will be awarded the Networking Services Technology degree only once.

For further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx.

Office Administration Associate in Science

Total credits required for the degree: 63.

The Office Administration 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 Administration. Students may select one of the three options. The student will be awarded the Office Administration degree only once.

For further 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 further 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 regional airline requirements for pilots; therefore, graduates of the program will earn the following Federal Aviation Administration (FAA) Certificates: Private, Commercial Pilot with Single and Multi-Engine Ratings. In addition, these certificates can be applied toward a Certified Flight Instructor (CFI) Certificate.

Additional Information: Students interested in this program must first pass an FAA Class I medical evaluation prior to beginning classes.

Cost of flight training is in addition to normal tuition costs.

Contact the Aviation Department at (305) 237-5950 for information and advisement.

For further 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 Programming program is designed for students who intend to seek employment in radio, television and production companies, as well as allied fields such as in-house educational and industrial studios. The curriculum provides introductory and advanced courses essential to the professional program. It stresses hands-on equipment use in both the radio and TV laboratories. Students will have access to high-end cameras, editing suites and video graphics animation facilities and will complete portfolio-quality productions.

For further 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 necessary to interpret the communications between deaf or hard of hearing persons and hearing individuals in an accurate and effective manner. Also developed is a practical understanding of aspects of deaf studies and deaf culture and community. Graduates should be able to interpret at a basic level, and to achieve a minimum of Level 1 on the Quality Assurance (QA) Screening of the Florida Registry of Interpreters for the Deaf, which is traditionally required for employment as an interpreter in the state. In addition, the program will provide a foundation, especially with an accompanying Associate in Arts degree, for those persons who wish to pursue advanced degrees in preparation for careers in special education, vocational rehabilitation or other human service fields.

For further 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 further 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 prepare students for employment as theater 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 previously or currently employed in these occupations. An internship is required to provide practical experience.

For further 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, in-house translators/interpreters for the private sector (including translation/ interpretation agencies), translators for government agencies, hospital interpreters/translators, freelance translators/ interpreters and telephone interpreters. Graduates will have the basic foundation to establish their own translation/interpretation business.

For further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx.

Travel Industry Management Associate in Science

Total credits required for the degree: 64.

The Travel Industry Management program is designed to meet the educational and basic experience requirements for employment in the travel industry, e.g. travel agencies, airlines, cruise lines and private-business travel departments. This program combines general education courses, travel occupation courses and special travel laboratory courses in order to prepare the student for competent application of the skills required on the job.

For further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx.

Associate in Applied Science (A.A.S.)

The two year Associate in Applied Science degree is similar to the Associate in Science degree in that it prepares individuals for entry into a career upon graduation. Like the A.S., the A.A.S. was established to prepare individuals for careers requiring specialized study at the college level. However, the A.A.S. degree does not articulate or transfer to the upper divisions. The A.A.S. degree programs are comprised mostly of courses directly related to the identified career area. The remaining courses are comprised of general education classes such as English, oral communications, math/science, behavioral/social science and humanities.

Business Administration Associate in Applied Science

Total credits required for the degree: 64.

The Business Administration Associate in Applied Science degree program is designed for students seeking employment or advancement in international business, management, marketing, non-profit management, real estate and small business management. Other degree programs are available for students 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 Associate in Applied Science in Business Administration. Students may select one of the five options, but the Associate in Applied Science is awarded to the student only once.

For further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx

Hospitality and Tourism Management Associate in Applied 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 management specialization, a restaurant/food service management specialization and a cruise line management specialization. An internship program is required to provide practical experience in the field of the student's choice. To transfer to a four-year institution, please see the Hospitality and Tourism Management Associate in Science degree requirements or your program advisor. This A.A.S. does not transfer to a four-year institution.

For further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx

Other College Credit and Vocational Credit Programs

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.

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

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 further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx

College Credit Certificate Programs

College Credit Certificate programs require fewer credits than an Associate in Science degree. These are Florida Department of Education Certified College Credit programs. The college credits granted in these programs will apply toward the related Associate in Science degree. The student receives an institutional College Credit Certificate upon completion of the program and the program's title will be added to the student's transcript.

Accounting Applications College Credit Certificate

Total credits required for the College Credit Certificate: 26.

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 further 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 further 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 further 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 & 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 further 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 Analysis and Financial Analyst. This program also meets the requirements for the Center for Financial Training national industry diploma.

For further 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 further 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 persons previously or currently engaged in these activities. The program prepares individuals to become proficient in the planning, organizing, directing and controlling of a 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 options, but the certificate in Business Management is awarded only once.

For further 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 further 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 further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx

Cisco Network Associate College Credit Certificate

Total credits required for the College Credit Certificate: 12.

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 further 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 further 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 in an architectural office by obtaining intermediate skills in architectural graphics needed to produce working and presentation drawings. After successfully completing the following courses, students can obtain employment assisting architects and drafters with computer-aided drawings and design presentations.

For further 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 data processing applications. Graduates are prepared for positions as entry-level programmers, programmer specialists, computer programmers and senior programmers.

For further 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. Students must successfully complete the courses listed below.

For further 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 Science degree in Hospitality Management, which is fully transferable to public universities within the State of Florida.

For further 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 Pre-Requisite: 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 further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx

Interpretation Studies Spanish/English Track or Haitian-Creole/English Track 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) in the workplace. Those who complete the program are prepared for positions as court interpreters, in-house interpreters for the private sector (including interpretation agencies), hospital interpreters, freelance interpreters and telephone interpreters.

For further 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, public relations manager, public relations specialists or to provide supplemental training for persons previously or currently employed in these occupations.

For further 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. Students must complete the courses listed below:

For further 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 Pre-Requisite: 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 further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx

Microsoft Solutions Developer College Credit Certificate

Total credits required for the College Credit Certificate: 16.

The Microsoft Solutions Developer College Credit Certificate program is designed to provide an opportunity to establish an advanced level of expertise in the field of commercial computer applications development for employment in commercial, industrial, and government institutions. Graduates are prepared for positions as application developers and solution providers.

Additional Information: Certificate Pre-Requisite: CGS 1060, CGS 1541, CGS 1560. COP 1170, 2172 and COP 2700 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), communications 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 further 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 is a 31 College Credit Certificate program, which applies towards 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 further 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 further 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, jr., 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, jr., operations analyst, payroll specialist, personal assistant, project administrator/ coordinator, proofreader, or to provide supplemental training for persons 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 further 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 preparation 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 further 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 e-mailing 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 further 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 further 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: CGS1060, CGS1541, CGS1560, COP1170, COP2172, COP2700 and COP2740 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 further 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 further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx

Translation Studies Spanish/English Track or Haitian-Creole Track 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 carry out the work associated with areas of translation (written) in the workplace. Those who complete the program are prepared for positions as in-house translators for the private sector (including translation agencies), translators for government agencies, hospital translators and freelance translators.

For further 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 web site design and programming for employment in commercial, industrial, and government institutions. Graduates are prepared for positions as web technicians, web administrators, and web site developers.

For further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx

Vocational Credit Certificate Programs

These 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. Students will be awarded a Vocational Credit Certificate upon the completion of a program. Vocational Credit Certificate 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. Those students who score below the required Department of Education grade level designated for each program, per Section 233.0695 F.S, will be required to take appropriate basic skills training prior to the completion of their respective programs.

Vocational credit students are eligible for financial aid as long as they are enrolled in programs greater than 600 credit hours.

Allied health programs are offered at the Medical Center Campus only. See page 83.

Academy of International Marketing Vocational Credit Certificate

Minimum Grade Level Required for Certificate and Graduation:
Mathematics: 9.0; Language: 9.0; Reading: 9.0
Program Length: 600 Contact Hours (20.0 Vocational Credits)

The total contact hours required for Vocational Credit Certificate: 600.0.

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 further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx

Accounting Operations Vocational Credit Certificate

Minimum Grade Level Required for Certificate and Graduation:
Mathematics: 9.0; Language: 9.0; Reading: 9.0
Program Length: 900 Contact Hours (30.0 Vocational Credits)

The total contact hours required for Vocational Credit Certificate: 900.0.

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

For further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx

Administrative Assistant Vocational Credit Certificate

Minimum Grade Level Required for Certificate and Graduation:
Mathematics: 10.0; Language: 10.0; Reading: 10.0
Program Length: 1050 Contact Hours (35.0 Vocational Credits)

The total contact hours required for Vocational Credit Certificate: 1050.0.

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

For further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx

Bail Bond Agent Vocational Credit Certificate

Program Length: 120 Contact Hours (4.0 Vocational Credits)

The total contact hours required for Vocational Credit Certificate: 120.0.

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 by the Legal Assisting Program. Contact the Program Office in Room 3506 or call (305) 237-7813 for specific information.

For further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx.

Business Computer Programming Vocational Credit Certificate

Minimum Grade Level Required for Certificate and Graduation:
Mathematics: 9.0; Language: 9.0; Reading: 9.0
Program Length: 1200 Contact Hours (40.0 Vocational Credits)

The total contact hours required for Vocational Credit Certificate: 1200.0.

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 further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx.

Business Supervision and Management Vocational Credit Certificate

Minimum Grade Level Required for Certificate and Graduation:
Mathematics: 9.0; Language: 9.0; Reading: 9.0
Program Length: 900 Contact Hours (30.0 Vocational Credits)

The total contact hours required for Vocational Credit Certificate: 900.0.

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

For further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx.

Police Service Aide Vocational Credit Certificate

Minimum Grade Level Required for Certificate and Graduation:
Mathematics: 10.0; Language: 10.0; Reading: 10.0
Program Length: 206 Contact Hours (6.9 Vocational Credits)

The total contact hours required for Vocational Credit Certificate: 206.0.

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 Chapter 316, 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 on 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 Vocational Credit Certificate will be awarded in Community Service Officer/Police Service Aide. The program is limited to School of Justice students only.Test of Adult Basic Education (TABE) is required.

For further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx.

Correctional Officer – County Vocational Credit Certificate

Program Length: 597.00 Contact Hours (19.89 Vocational Credits) Required for Certificate and Graduation

The total contact hours required for Vocational Credit Certificate: 597.00.

The Correctional Officer - County 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 pro-

gram and successful completion of the State Certification Exam. 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, Voice Stress Analysis Test, psychological test, fingerprinting and background check and the Florida Basic Abilities Test (FBAT). For more information please contact the School of Justice, FBAT Department and/or visit the FBAT Web site, at www.mdc.edu.north.fbat.

For further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx.

Correctional Officer – State Vocational Credit Certificate

Program Length: 595.00 Contact Hours (19.83 Vocational Credits) Required for Certificate and Graduation

The total contact hours required for Vocational Credit Certificate: 595.00.

The Correctional Officer – State program prepares students for certification as Correctional Officers in the State of Florida. All criminal justice standards and training, Department of Education, and local standards will be met. Graduates are eligible for employment with any correctional agency in the state upon graduation from the program and successful completion of the State Certification Exam. Topics include human behavior, law, communications, facility operations, first aid and other related topics. There is emphasis on practical applications and competency-based performance. This program is offered at the School of Justice. Students seeking entrance into the MDC School of Justice basic recruit training programs for a career in corrections are required to pass a physical screening, physical agility, Voice Stress Analysis Test, psychological test, fingerprinting and background check and the Florida Basic Abilities Test (FBAT). For more information please contact the School of Justice, FBAT Department and/or visit the FBAT Web site, at www.mdc.edu.north.fbat.

For further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx.

Correctional Probation Officer Vocational Credit Certificate

Program Length: 424.0 Contact Hours (14.1 Vocational Credits) Required for Certificate and Graduation

The total contact hours required for Correctional Probation Officer - State is 424.0.

The Correctional Probation Officer program is established for the purpose of providing job-related training to candidates for full-time and part-time employment as Correctional Probation Officers in accordance with Chapter 11b-35, Florida Administrative Code (F.A.C.) and Chapter 943 Florida Statutes (F.S).

For further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx.

Crossover from Correctional Officer to Law Enforcement Officer Vocational Credit Certificate

Program Length: 302 Contact Hours (10.10 Vocational Credits) Required for Certificate and Graduation

The total contact hours required for Vocational Credit Certificate: 302.0.

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. The courses listed below prepare the Corrections Officer for the Law Enforcement State Certification Exam.

For further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx.

Customer Assistance Technology Vocational Credit Certificate

Minimum Grade Level Required for Certificate and Graduation:
Mathematics: 9.0; Language: 9.0; Reading: 9.0
Program Length: 450 Contact Hours (15.0 Vocational Credits)

The total contact hours required for Vocational Credit Certificate: 450.0.

The purpose of the Customer Assistance Technology program is to prepare students for employment as indicated in the occupational exit points listed below. Test of Adult Basic Education (TABE) is required.

For further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx.

Early Childhood Education Vocational Credit Certificate

Minimum Grade Level Required for Certificate and Graduation:
Mathematics: 9.0; Language: 9.0; Reading: 9.0
Program Length: 600 Contact Hours (20.0 Vocational Credits)

The total contact hours required for Vocational Credit Certificate: 600.0.

The Early Childhood Education program will prepare adults for employment as a child care worker, child care teacher aide, pre-school teacher, and child care development specialist. It combines classroom instruction and field work experience with an emphasis on developmentally-appropriate programming for young children. The requirements for the Florida Department of Children and Families 20/10 Hour Child Care Training certificate and the Child Development Associate (CDA) equivalency are included in the program. Test of Adult Basic Education (TABE) is required.

For further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx

Fire Fighting Vocational Credit Certificate

Minimum Grade Level Required for Certificate and Graduation:
Mathematics: 10.0; Language: 10.0; Reading: 10.0
Program Length: 450 Contact Hours (15.0 Vocational Credits)

The total contact hours required for Vocational Credit Certificate: 450.0.

The purpose of the Fire Fighting program is to prepare students for employment and certification as a firefighter in accordance with Florida Statutes 633. 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 further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx

Insurance Marketing Vocational Credit Certificate

Minimum Grade Level Required for Certificate and Graduation:
Mathematics: 9.0; Language: 9.0;
Reading: 9.0
Program Length: 450 Contact Hours (15.0 Vocational Credits)

The total contact hours required for Vocational Credit Certificate: 450.0.

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 further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx

Law Enforcement Officer Vocational Credit Certificate

Program Length: 760.0 Contact Hours (25.3 Vocational Credits) Required for Certificate and Graduation

The total contact hours required for Vocational Credit Certificate: 760.0.

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 Web site, at www.mdc.edu.north.fbat.

For further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx

Legal Administrative Specialist Vocational Credit Certificate

Minimum Grade Level Required for Certificate and Graduation:
Mathematics: 10.0; Language: 10.0;
Reading: 10.0
Program Length: 1050 Contact Hours (35.0 Vocational Credits)

The total contact hours required for Vocational Credit Certificate: 1050.0.

The purpose of the Legal Secretary program is to prepare students for employment as indicated in the occupational completion points listed below. Test of Adult Basic Education (TABE) is required.

For further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx

Network Support Services Vocational Credit Certificate

Minimum Grade Level Required for Certificate and Graduation:
Mathematics: 9.0; Language: 9.0;
Reading: 9.0
Program Length: 1050 Contact Hours (35.0 Vocational Credits)

The total contact hours required for Vocational Credit Certificate: 1050.0.

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 further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx

PC Support Services Vocational Credit Certificate

Minimum Grade Level Required for Certificate and Graduation:
Mathematics: 9.0; Language: 9.0;
Reading: 9.0
Program Length: 900 Contact Hours (30.0 Vocational Credits)

The total contact hours required for Vocational Credit Certificate: 900.0.

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 further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx

Private Security Officer Vocational Credit Certificate

Program Length: 68.0 Contact Hours (2.3 Vocational Credits) Required for Certificate and Graduation

The total contact hours required for Vocational Credit Certificate: 68.0.

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 further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx

Public Safety Telecommunications Vocational Credit Certificate

Minimum Grade Level Required for Certificate and Graduation:
Mathematics: 10.0; Language: 10.0; Reading: 10.0
Program Length: 232 Contact Hours (7.7 Vocational Credits)

The total contact hours required for Vocational Credit Certificate: 232.0.

The Public Safety Telecommunications program provides basic skills and knowledge required for public safety dispatching in the fields of law enforcement, fire and rescue services, emergency medical services and emergency management. Students are either department employees or self-sponsored. Emphasis is placed on communication skills, first responder and knowledge of telecommunication equipment and terminology. Training is scenario-based with practical applications using dispatch equipment. This program is offered at The School of Justice only. Test of Adult Basic Education (TABE) is required.

For further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx

Real Estate Broker Vocational Credit Certificate

Program Length: 72 Contact Hours (2.40 Vocational Credits) Required for Certificate and Graduation

The total contact hours required for Vocational Credit Certificate: 72.0.

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

For further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx

Real Estate Sales Agent Vocational Credit Certificate

Program Length: 63 Contact Hours (2.10 Vocational Credits) Required for Certificate and Graduation

The total contact hours required for Vocational Credit Certificate: 63.0.

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

For further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx

Television Production Vocational Credit Certificate

Minimum Grade Level Required for Certificate and Graduation:
Mathematics: 9.0; Language: 9.0; Reading: 9.0
Program Length: 1650 Contact Hours (55.0 Vocational Credits)

The total contact hours required for Vocational Credit Certificate: 1650.0.

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 further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx

Teller Operations Vocational Credit Certificate

Minimum Grade Level Required for Certificate and Graduation:
Mathematics: 9.0; Language: 9.0; Reading: 9.0
Program Length: 150 Contact Hours (5.0 Vocational Credits)

The total contact hours required for Vocational Credit Certificate: 150.0.

The Teller Operations Vocational Credit 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 further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx

Travel and Tourism Industry Operations Vocational Credit Certificate

Minimum Grade Level Required for Certificate and Graduation:
Mathematics: 9.0; Language: 9.0; Reading: 9.0
Program Length: 600 Contact Hours (20.0 Vocational Credits)

The total contact hours required for Vocational Credit Certificate: 600.00.

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 includes 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 further information please visit https://sisvsr.mdc.edu/ps/sheet.aspx

Allied Health/Nursing Programs

Medical Center Campus

The College offers a variety of educational opportunities for those who wish to prepare for healthcare careers. Each nursing and allied health 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 healthcare 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 Vocational Credit Certificate programs in the healthcare fields.

Any students interested in any of the Allied Health 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 allied health programs. Those desiring enrollment in a program must first consult with an advisor in the New Student Center on the Medical Center 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 G.E.D
2. Complete admission to Miami Dade College
3. Submit the completed program application by the due date to the Medical Center Campus
4. Complete the computer placement test (CPT), if required, and any required College Preparatory 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
8. Individual programs may require additional testing.

An applicant who has 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 Center Campus. A program may have additional published selection criteria.

Student Selection/Progression

Most allied health and nursing programs at the Medical Center 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 noncollegiate preparation in nursing or an allied health 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 Center 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 allied health must be able to meet the physical and emotional requirements of the academic program. In addition, students admitted to programs in nursing and allied health technologies 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 effectively communicate, orally and in writing, with patients and their families, colleagues, healthcare 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 on 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 allied health 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.

For information concerning preprofessional programs in the medical, nursing and allied health fields (those programs designed to prepare students for transfer to upper-division colleges and universities), students should consult the section on Associate in Arts programs.

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 computer placement test (CPT) or have satisfactorily completed the required College Preparatory courses. Students may be exempt from the CPT as per the College catalog. Applicants must test out of the first level of college prep on the CPT 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 Center Campus to request a School of Nursing Information Booklet for specific, detailed information.

To be eligible for selection into a nursing option, all applicants must meet previously-stated criteria and:

1. Current status as a Miami Dade degree-seeking student with all required college preparatory courses successfully completed.
2. Cumulative GPA of 2.0 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 Booklet for specific information.

Bridge Option

This is designed for licensed practical nurses (LPN) or other individuals with

healthcare 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. Successfully complete PN achievement test
3. 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 78 or above on the basic skills reading test (CPT)
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 Applied Science degree by completion of 20 additional credit hours.

Further information may be obtained by calling the Radiologic Sciences Department at the Medical Center 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 the Medical Center Campus. These are the Natural Sciences and General Education courses offered by the College. These courses include:

BSC 2085/6	Human Anatomy and Physiology & Labs
CHM 1033	Chemistry for Health Sciences
DEP 1005	Psychology of Personal Effectiveness
DEP 2000	Human Growth and Development
HSC 0003	Introduction to Health Care
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 the Medical Center Campus, the other campuses and offered at local health care organizations through the Alliance for Employee Advancement.

The Alliance for Employee Advancement is a cooperative effort between health care organizations in Miami Dade County and the Medical Center Campus of Miami Dade College. This alliance provides on-site educational opportunities to college students and employees in the health care field.

Community Education, Medical Center Campus

The Medical Center Campus provides professional continuing education for the healthcare community by offering courses in many of the nursing and allied health disciplines. Healthcare 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 healthcare professionals updated in their fields and to meet re-licensure or certification requirements.

Remediation Course

These are 10-week Florida Board of Nursing approved NCLEX-RN and NCLEX-PN remediation courses.They are designed to prepare individuals to successfully pass nursing licensure examinations.

Licensing Examination Review Courses

These courses prepare Allied Health and Nursing graduates for licensing examinations.

Contact Hours for Re-licensure

These courses focus on topics relevant to healthcare professionals, with contact hours being provided for re-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 non-profit organizations) with seminars, workshops, short courses, lectures and health fairs. These events cover a broad range of health-related topics.

Associate in Science

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 that 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, Medical Center 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, Medical Center Campus.

Health Information Management 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 an unlimited choice of practice settings including: hospitals, clinics, clinical laboratories, veterinary pathology and forensic pathology. A Histotechnologist will be able to freeze, embed, and cut tissues, mount tissue samples on slides and stain them with dyes to make the cell details visible under the microscope. Graduates are eligible to sit for the Florida State Licensure and Registry

with the American Society of Clinical Pathologists and equivalent licensure.

Additional Information: Due to the limited number of students that 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, Medical Center Campus.

Medical Laboratory Technology
Associate in Science

Total credits required for Associate in Science degree: 76.

The Medical Laboratory Technology program prepares the graduate to work as part of the health care delivery team in a non-profit clinical laboratory or research laboratory. Clinical practice is conducted in local health care facilities under the supervision of qualified, registered professional personnel. Graduates are eligible for Florida State Licensure and Registry with the American Society of Clinical Pathologists and equivalent licensure.

Additional Information: Due to the limited number of students that can be accepted into the Medical Laboratory 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 Medical Laboratory Technology, Medical Center Campus.

Midwifery
Associate in Science

Total credits required for Associate in Science degree: 90.

The Midwifery program prepares students to provide care for mothers who are expected to have a normal pregnancy, labor and delivery. Classroom and clinical instruction incorporates the core competencies established by the Midwives Alliance of North America and the American College of Nurse-Midwives. The student who successfully completes this program will earn an Associate in Science degree in Midwifery and satisfy the educational requirements to take the state board examination to become a Florida licensed midwife.This program is approved by the State of Florida Council of Licensed Midwifery and accredited by the Midwifery Education Accreditation Council. For specific program admission requirements, see a Midwifery Information Booklet, or Contact the New Student Center, Medical Center Campus (305) 237-4141.

Additional Information: Due to the limited number of students that can be accepted into the Midwifery program, 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 Center 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 that 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 Radiologic Sciences, Medical Center Campus. Note:All applicants must attend an information session before acceptance into the Nuclear Medicine Technology program. Application Deadline is May 1st for the class beginning Summer term. Students should visit the New Student Center for more information. Note: Applicants must pass a physical, meet physical requirements, complete an approved CPR course and an approved HIV/AIDS course before beginning the Nuclear Medicine Technology program.

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 degree in other disciplines for a career as a Registered Nurse (RN) 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 National League for Nursing Accrediting Commission (NLNAC), 61 Broadway, New York, NY 10006, (212) 363-5555, www.nlnac.org) and approved by the Florida Board of Nursing (FBON). Graduates are eligible to apply to the National Council Licensing Examination for Registered Nurses (NCLEX-RN).

Selection is based on the students' cumulative grade point average (GPA) and successful completion or those who are currently enrolled in 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 college preparatory courses successfully completed.
- Score of 78 or higher on the CPT Reading exam.
- 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 3 grades of D, F or W in the Natural Science courses required for the program.
- No more than 2 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 that 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 Center Campus.

Note: Anatomy & Physiology grades must be earned within ten (10) years of admission into the Associate Degree Nursing program. If these grades are more than ten (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 National League for Nursing Accrediting Commission (NLNAC), 61 Broadway, New York, NY 10006, (212) 363-5555, www.nlnac.org) and approved by the Florida Board of Nursing (FBON). Graduates are eligible to apply to write the National Council Licensing Examination for Registered Nurses (NCLEX-RN).

Selection is based on the students' cumulative grade point average (GPA) and successful completion or those who are currently enrolled in 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 college preparatory 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 3 grades of D, F or W in the Natural Science courses required for the program.
- No more than 2 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 that 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 Center Campus.

Note: Anatomy & Physiology grades must be earned within ten (10) years of admission into the Associate Degree Nursing program. If these are more than ten (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 National League for Nursing Accrediting Commission (NLNAC), 61 Broadway, New York, NY 10006, (212) 363-5555, (www.nlnac.org) and approved by the Florida Board of Nursing (FBON). Graduates are eligible to apply to write the National Council Licensing Examination for Registered Nurses (NCLEX-RN). The part-time track is designed for individuals who must work while they attend school.

Selection is based on the students' cumulative grade point average (GPA) and successful completion or those who are currently enrolled in 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 college preparatory 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 3 grades of D, F or W in the Natural Science courses required for the program.
- No more than 2 grades of D, F or W in any individual Natural Science course required for the program.
- Successful completion of the National League for Nursing (NLN) with a score of 128 or higher, no more than five years old, or successful completion of the Practical Nursing (PN) Achievement Test with a score of 70% or higher.

Additional Information: Due to the limited number of students that 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 Center Campus.

Note: Anatomy & Physiology grades must be earned within ten (10) years of admission into the Associate Degree Nursing program. If these are more than ten (10) years old, please 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., 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 (RN). The content and clinical experiences are designed to meet the learning and professional socialization needs of this special category of student. The program is accredited by the National League for Nursing Accrediting Commission (NLNAC), 61 Broadway, New York, NY 10006, (212) 363-5555, (www.nlnac.org) and approved by the Florida Board of Nursing (FBON). Graduates are eligible to apply to write the National Council Licensing Examination for Registered Nurses (NCLEX-RN). http://www.fldoe.org/CC/Educators/bach_app.asp

Selection is based on the students' cumulative grade point average (GPA) and successful completion or those who are currently enrolled in 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 college preparatory 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 3 grades of D, F or W in the Natural Science courses required for the program.
- No more than 2 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 that 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 Center Campus.

Note: Anatomy & Physiology grades must be earned within ten (10) years of admission into the Associate Degree Nursing program. If these are more than ten (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 (RN). The content and clinical experiences are designed to meet the learning and professional socialization needs of this special category of student. The program is accredited by the National League for Nursing Accrediting Commission (NLNAC), 61 Broadway, New York, NY 10006, (212) 363-5555, (www.nlnac.org) and approved by the Florida Board of Nursing (FBON). Graduates are eligible to apply to write the National Council Licensing Examination for Registered Nurses (NCLEX-RN). The part-time track is designed for individuals

who work full-time. Selection is based on the students' cumulative grade point average (GPA) and successful completion or those who are currently enrolled in 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 college preparatory 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 3 grades of D, F or W in the Natural Science courses required for the program.
- No more than 2 grades of D, F or W in any individual Natural Science course required for the program.
- Successful completion of the National League for Nursing (NLN) with a score of 128 or higher, no more than five years old, or successful completion of the Practical Nursing (PN) Achievement Test with a score of 70% or higher.

Additional Information: Due to the limited number of students that 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 Center Campus.

Note: Anatomy & Physiology grades must be earned within ten (10) years of admission into the Associate Degree Nursing program. If these are more than ten (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 multi-disciplinary approach. Among the marketable skills acquired are clinical data collection, ophthalmic fabrication and ophthalmic dispensing. The student begins working with patients during the third semester in clinics staffed by ophthalmologists, optometrists and opticians. A student must maintain a grade point average of 2.0 or better in each course with an "OPT" prefix in order to advance within the program. The successful completion of this program offers the graduate a challenging and rewarding career on an ophthalmic health care team. Graduates are eligible to sit for the Opticianry Licensure Examination and the Optometric Technician Registration Examination. After one year of work experience with an ophthalmologist, graduates may sit for the Ophthalmic Medical Assistant Certification Examination. The Opticianry program is approved by the Council on Optometric Education and the Commission on Opticianry Accreditation.

Additional Information: Due to the limited number of students that 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 Opticianry, Medical Center Campus.

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 in Physical Therapist Assisting.

Additional Information: Due to the limited number of students that 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.

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 National Commission of Certification of Physician Assistants (NCCPA).

Additional Information: - This is not necessarily the order in which all students will complete the eight rotations. Most clinical rotations are offered every term to maximize the utilization of sites available to students.

Radiation Therapy Technology Associate in Science

Total credits required for Associate in Science degree: 77.

The Radiation Therapy Technology program prepares the student to function

as a Radiation Therapist. The Radiation Therapist is a key member of a professional team using various forms of radiation to treat cancer. Three major areas of responsibility are daily treatments, patient support and treatment planning. The educational process includes a close integration of classroom, laboratory and clinical education.

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 N.B.R.C. 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 Cardiorespiratory Technologies, Medical Center Campus.

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).

Associate in Applied Science (A.A.S.)

The two-year Associate in Applied Science degree is similar to the Associate in Science degree in that it prepares individuals for entry into a career upon graduation. Like the A.S., the A.A.S. was established to prepare individuals for careers requiring specialized study at the college level. However, the A.A.S. degree does not articulate or transfer to the upper-divisions. The A.A.S. degree programs are comprised mostly of courses directly related to the identified career area. The remaining courses are comprised of general education classes such as English, oral communications, math/science, behavioral/social science and humanities.

Radiography Associate in Applied Science

Total credits required for the degree: 77.

The Radiography program is an Associate in Applied Science degree, which provides a broad base of education and performance-based clinical experience in all technical aspects of work as a Radiographer. Experience is provided in all routine general and fluoroscopic procedures, special procedures and in the use of the specialized equipment and techniques available in the affiliated clinical education centers. The graduate is eligible to apply to take the Registry Examination of the American Registry of Radiologic Technologists. The application deadline is February 15th for the class beginning the following Summer term.

Additional Information: All applicants must attend an Information Session before acceptance into the Radiography program. Applicants must pass a physical, meet physical requirements, must

complete an approved CPR course and an approved HIV/AIDS course before beginning the Radiography program.

Due to the limited number of students that can be accepted into the Radiography program, it is important that applicants be properly informed. For information, advisement, application forms and deadline dates, interested students should contact the Department of Radiologic Sciences, Medical Center Campus.

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

College Credit Certificates

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 State of Florida, Department of Health and Rehabilitative Services.

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. /A.A.S.), and must have completed CHM1032, CHM1032L, 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 physician's offices. These contributing members of the allied health team prepare and administer the tracer radiopharmaceuticals 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 (CAHEA).

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

Vocational Credit Certificate Programs

Massage Therapy – Accelerated Option Vocational Credit Certificate

Minimum Grade Level Required for Certificate and Graduation:
Mathematics: 9.0; Language: 10.0; Reading: 10.0
Program Length: 750 Contact Hours (25.0 Vocational Credits)

The total contact hours required for Vocational Credit Certificate: 750.0.

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 State of 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 that 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 Vocational Credit Student Resources Center, Medical Center Campus.

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

Massage Therapy – Generic Option Vocational Credit Certificate

Minimum Grade Level Required for Certificate and Graduation:
Mathematics: 9.0; Language: 10.0; Reading: 10.0
Program Length: 750 Contact Hours (25.0 Vocational Credits)

The total contact hours required for Vocational Credit Certificate: 750.0.

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 State of Florida Massage Therapy licensure examination. Test of Adult Basic Education (TABE) is required.

Additional Information: Due to the limited number of students that 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 Vocational Credit Student Resources Center, Medical Center 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 Vocational Credit Certificate

Minimum Grade Level Required for Certificate and Graduation:
Mathematics: 9.0; Language: 10.0;
Reading: 10.0
Program Length: 750 Contact Hours
(25.0 Vocational Credits)

The total contact hours required for Vocational Credit Certificate: 750.0.

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 State of 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 that 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 Vocational Credit Student Resources Center, Medical Center Campus.

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

Medical Assisting Vocational Credit Certificate

Minimum Grade Level Required for Certificate and Graduation:
Mathematics: 10.0; Language: 10.0;
Reading: 10.0
Program Length: 1300 Contact Hours
(43.3 Vocational Credits)

The total contact hours required for Vocational Credit Certificate: 1300.0.

The Medical Assisting program, which is 1 year (3 semesters) in length, prepares individuals to provide health services in ambulatory out-patient facilities, including medical offices and clinics. Medical Assistants participate in diagnostic, clinical, and administrative functions. Diagnostic functions include drawing blood, performing basic laboratory tests and taking 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 Vocational Credit Student Resources Center, Medical Center Campus (305) 237-4374.

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

Medical Coder/Biller Vocational Credit Certificate

Minimum Grade Level Required for Certificate and Graduation:
Mathematics: 9.0; Language: 11.0;
Reading: 11.0
Program Length: 1000 Contact Hours
(33.3 Vocational Credits)

The total contact hours required for Vocational Credit Certificate: 1000.0.

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 Vocational Credit Certificate

Minimum Grade Level Required for Certificate and Graduation:
Mathematics: 9.0; Language: 11.0; Reading: 11.0
Program Length: 1200 Contact Hours (40.0 Vocational Credits)

The total contact hours required for Medical Record Transcribing: 1200.0.

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 Vocational Credit Certificate

Minimum Grade Level Required for Certificate and Graduation:
Mathematics: 11.0; Language: 10.0; Reading: 10.0
Program Length: 1050 Contact Hours (35.0 Vocational Credits)

The total contact hours required for Vocational Credit Certificate: 1050.0.

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 Vocational Credit Certificate

Minimum Grade Level Required for Certificate and Graduation:
Mathematics: 9.0; Language: 10.0; Reading: 10.0
Program Length: 165 Contact Hours (5.5 Vocational Credits)

The total contact hours required for Phlebotomy: 165.0.

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 that 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 Vocational Credit Student Resources Center, Medical Center Campus.

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

Practical Nursing Vocational Credit Certificate

Minimum Grade Level Required for Certificate and Graduation:
Mathematics: 11.0; Language: 11.0; Reading: 11.0
Program Length: 1350 Contact Hours (45.0 Vocational Credits)

The total contact hours required for Vocational Credit Certificate: 1350.0.

Practical nurses perform selected duties, including the administration of treatments and medications in the care of the ill, injured or infirm and promote wellness, the maintenance of health and prevention of illness under the direction of a registered nurse, licensed physician or licensed dentist. Graduates are eligible to apply to write the NCLEX-PN to become Licensed Practical Nurses. Test of Adult Basic Education (TABE) and Nurse Entrance Test (NET) are required.

Additional Information: Due to the limited number of students that can be accepted into the Practical Nursing program, it is important that applicants be properly informed. For information, advisement, application forms, selection criteria and deadline dates, interested students should contact the Vocational Credit Student Resources Center, Medical Center Campus (305) 237-4374.

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, providing more accessible programs countywide, and to 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 the 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 Associate in Arts degrees 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 Associate in Science, two-year programs 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 pre-determined stages during the semester.

The core of the Architecture and Interior Design programs 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 basic principles 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 state-of-the-art digital photography and computer graphics to produce outstanding portfolios.

School of Allied Health Technologies

The Medical Center Campus is committed to assisting qualified students interested in pursuing careers in the allied health professions. Allied Health professionals provide over 60% of all health care administered in the United States. The School of Allied Health Technologies offers more than 20 challenging vocational, certificate and degree programs such as Respiratory Therapy, Opticianry, Medical Laboratory Technology and Health Information Management.

Programs in the School of Allied Health Technologies 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 over 100 healthcare 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. Allied Health 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 Center Campus at (305) 237-4141 to receive current information regarding program requirements, application procedures and selection process for the specific Allied Health program of interest.

School of Aviation

The School ofAviation is a collegewide program administered at the Homestead Campus. The School of Aviation is currently housed at three sites: one adjacent to Miami International Airport, one at the Kendall Tamiami Executive Airport and one at the Homestead Campus.

Associate in Science degree programs are available in aviation administration, aviation maintenance management and professional pilot technology.

In addition, short-term certificate and continuing education training programs are offered in airline/aviation management, certified flight instructor, air cargo agent, passenger service agent and airport management.

The School of Aviation is proud of its comprehensive and substantive curriculum, qualified and certified instructional personnel, state-of-the-art labs and simulators and its close working partnership with the aviation industry.

School of Business

The School of Business offers a full range of academic and vocational programs to prepare students for careers in business, including the Associate in Science degree in Business Administration. This degree gears students toward transfers to four-year institutions. In addition to Associate in Arts and Associate in Science degrees, the School offers College Credit and Vocational Credit Certificates, as well as an Associate in Applied Science in Business. Course offerings are available in a wide number of disciplines, including accounting, business administration, economics, management, marketing, international trade, international business, real estate marketing, financial services, hospitality management and office systems technology.

The School of Business has a long tradition of partnering with industry to offer students cutting-edge instruction in various fields and in providing customized training to cover corporate needs. Current partners include the Center for Financial Training (formerly known as the American Institute of Banking – AIB), the Fannie Mae Mortgage Finance Program and the General Motors Marketing Internship Program. Courses in the School of Business are offered at the Wolfson, Kendall, Homestead, North and InterAmerican campuses.

School of Computer and Engineering Technologies

The School of Computer and Engineering Technologies provides courses and programs designed to meet the work force needs of the information technology, telecommunications, and engineering fields. The primary objective is to produce a trained work force to meet the critical demands in the high technology marketplace of Florida's Internet Coast.

Curricula include Associate in Arts and Associate in Science Degrees, as well as College Credit and Vocational Credit Certificate programs. Among the programs offered are: Air Conditioning, Building Construction Management, Computer Programming and Database Development, Electronics/ Computer Repair, Engineering, Game Development Programming, Internet Technologies, Network Technologies, Telecommunications and others.

The School of Computer and Engineering Technologies offers courses at the Homestead, InterAmerican, Kendall, North and Wolfson campuses. 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, Unigraphics, Dell, IBM and FPL. The School is a Cisco Regional Networking Academy offering CCNA and CCNP 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.

The Microcomputer Education for the Employment of the Disabled (MEED) Program is integrated into this School. Housed in an easily accessible facility on the Wolfson campus, this grant-funded activity provides a highly supportive environment to retrain recently disabled individuals to re-enter the workforce.

School of Community Education

The School of Community Education'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 Community Education departments located on each of the campuses, the School offers non-credit 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 the student improve his or her 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 to master basic skills needed to be successful in one of the College's Vocational Credit Certificate programs.

The School of Community Education 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 work force and the demand for class size reduction will result in an estimated two million new teaching positions in the United States by the year 2010. Thus; there will be ample professional opportunities for those who want to teach.

The School of Education provides education and professional development opportunities for pre-service teachers and for practicing professionals. Through our affordable and accessible programs, students are able to connect with a dynamic faculty. This faculty is dedicated to stimulating aspiring teachers to develop the knowledge, skills and disposition necessary to become excellent educators.

The School offers a wide variety of programs. Students may earn an Associate in Arts or Associate in Science Degree in elementary, secondary and early childhood education. Students may complete a Bachelor's of Science Degree in ESE, Secondary Math, or Secondary Science.

The School provides courses that meet state certification and recertification requirements. Courses leading to the Child Development Associate Equivalency certificate and the Child Care and Education Program Administrator credential are available as well. Students who complete the A.A. degree program may transfer to any of the state university colleges of Education with junior-level standing. Most private institutions will grant A.A. degree-holders the same status. The A.S. degree will prepare students for immediate employment as early child care and education professionals, paraprofessionals or substitute teachers in both the public school system or private school sector.

The School of Education offers four-year baccalaureate degrees in Education. The baccalaureate degree may be earned in the following specialties:

- Exceptional Student Education (kindergarten – 12th grade)
- Secondary Mathematics Education (middle and high school)
- Secondary Science Education (middle and high school)

The Baccalaureate Programs in Education are designed to prepare future teachers to enter the teaching profession immediately after graduation. Students are well prepared to meet all the requirements of the Florida Department of Education including the successful completion of the Certification Exams and a semester-long internship in a school setting. Professional development workshops also are provided.

Additionally, individuals with Bachelor's or higher degrees in other fields are able to earn teacher certification through our Educator Preparation Institute. Miami Dade College's School of Education, in partnership with Miami-Dade County Public Schools is providing the Substitute Teacher Training Certificate Program to support high quality instructors in every classroom. Effective curriculum, dynamic faculty, a supportive and caring administration and support services are in place to ensure success.

School of Entertainment and Design Technology

The School of Entertainment and Design Technology's (SEDT) mission is to effectively inspire and efficiently train our 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-trained workforce. Bringing dreams to life through high-tech digital training, the School of Entertainment and Design Technology emphasizes "real world" instruction in the cutting-edge technologies driving the film, television, radio, graphic design, printing and graphic arts, web design, photography, computer animation, theatre, sound recording and music industries.

As a workforce development program, the SEDT is focused on providing those skills/experiences necessary for our students to obtain entry-level and advanced technical jobs in the entertainment, design and photography industries. The School additionally serves those in the community who are currently employed in the industry and desire experiences that will upgrade/enhance their skills. The School of Entertainment and Design Technology at Miami Dade College is a cluster of arts, design and media production programs taught on four campuses and one outreach center. The school currently offers programs in the study of:

Film Production
Television & Video Production
Computer Animation
Music Business Management
Radio Production
Commercial Music Performance
Music Production and Sound Engineering
Theatre and Entertainment Production
Graphic Design
Graphic Arts
Internet Graphic Design
Photography Technology

Miami Dade College created programs of study as the use of new technologies increased. These support occupational growth within the entertainment industry.

The television, radio and sound engineering programs were created in the early 1970s, with the film production program subsequently established in the early 1990s. Most of the subjects taught were founded within the past five years in response to increased industry reliance on digital technologies.

The recent renovations of the teaching facilities and labs at the College's North, Kendall and Homestead campuses offer students state-of-the-art, industry-specific learning environments. These include a lecture and performance hall, a sound and lighting stage, television studio, recording studio, film and video editing post-production suite, administration/student advisement suite and a 24-hour, 7-day-a-week cable broadcast facility.

Filmmaking

Lights...Camera...Action...South Florida has become a hotbed for independent filmmakers and music video producers. Students may learn what it takes to become a successful film producer, director, writer, cinematographer, manager, editor and production crew member while earning an Associate of Science (A.S.) degree in Film Production Technology. Students begin handling equipment early in their academic pursuit, and they will learn to shoot film, digital tape, and edit projects on AVID, and Final Cut Pro non-linear systems. Students will write their own scripts and see these come alive on the "silver screen." MDC's Filmmaking curriculum is the most comprehensive program available in South Florida.

Television Production

The job market in South Florida is exploding for experts in the television and video production industry. Students can earn an Associate of Science (A.S.) degree or Vocational Certificate (P.S.A.V.) in Television and Video Production Technology at MDC. Students learn what it takes to be a camera operator, floor manager, production assistant, director, technical director, graphics operator, videotape operator and audio engineer in a fully-functional, state-of-the-art television studio (complete with a digital Grass Valley switcher). On field shoots, students use cameras equipped with DVC Pro, BetaCam SP and other broadcast quality tape formats. Students can edit their videos at one of the 5-plus stations that feature the Avid Media Composer, Avid Xpress DV, Final Cut Pro and Media 100 non-linear editing systems. Through the dedicated instruction of highly-trained broadcast professionals, students exchange their spectator status for integral roles in television and video production.

Computer Animation

People everywhere talk about the "cool" effects seen in movies, TV shows and commercials. Animation has gone high-tech and is taking the country by storm. The School of Entertainment Technologies offers an Associate in Arts (A.A.) degree in Computer Animation that prepares students for exciting careers in game design and development, special effects in feature films and product design and visualization. Computer animation students learn to use MAYA, the state-of-the-art 3D animation software. MAYA was instrumental in creating such feature films as "Lord of the Rings," "Final Fantasy," "Stuart Little" and "Ice Age." Training in the MAYA Complete 3D animation software includes animation, 3D modeling, rendering and dynamics (special effects). Until now, an education in MAYA was only available in private institutions and four-year universities. Students can get animated and jump into the 21st century with a degree in computer animation at MDC.

Music Business & Commercial Music

An Associate of Science degree in Music Business prepares students for a wide variety of careers in the music/entertainment industry. Careers such as artist management, business management, retail sales, field merchandiser, producer, marketing, copyright administration, venue management, music publisher, tour coordinator, consumer researcher, advertising account executive, road manager, concert promoter, music publisher and contractor are all attainable upon graduation. Students who are business/management-oriented can specialize in the "Business/Management Option" within the program. The "Creative Performance Option" is for students with a strong background in performing, composing or arranging; the program helps students enhance their career possibilities by gaining practical business knowledge. Students with a love for the recording sciences and who have interests in technical, hands-on activities, often choose the "Creative/Production" option.

School of Fire and Environmental Sciences

The School of Fire and Environmental Sciences provides educational and training opportunities in many vital fields related to fire prevention and suppression, as well as to a variety of environmental issues. The School trains individuals to meet the exacting standards of the federal, state and local agencies responsible for the regulations of both fields of study.

In addition to the Associate in Science degree in Fire Science technology, the Fire Science program prepares students for a variety of technical positions in the area of fire prevention and control. The program exceeds the Florida requirements for firefighter certification, as well as those of federal and state agencies (including the U.S. Coast Guard).

Students completing the Associate in Science degree in Fire Science Technology can obtain work in fire departments, state and local agencies and the maritime industry, as well as in many other areas of the work force.

Students completing one of the Environmental Science program options can select either an Associate in Arts degree in Environmental Studies or an Associate in Science degree in Environmental Science Technology. Students are trained in proper chemical and hazardous management, pollution control, conservation ecology and watershed management. Those who complete the program will find positions in federal, state and local agencies. Opportunities also exist in the variety of industries impacting the overall quality

of our environment (e.g. private industries using or producing chemicals and potentially creating pollution).

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 primary purpose of the police and corrections training institutes is the centralization of the education and training of personnel in the field of criminal justice. The institutes were established to provide a consolidated facility capable of handling all levels of instruction for the various elements of the criminal justice system. The programs emphasize campus/institute interaction and encourage mutual student/trainee/community involvement in both the institute programs and college courses. Attendees are employed by the local/state criminal justice agencies by whom they are sponsored, or the students may be self-sponsored and pay the cost of training themselves. The Private Sector Security training program was instituted in response to legislation in 1989 requiring minimum standards training for licensure. The training programs are designed to provide security officer candidates with the minimum standards of training required by the State of Florida for licensure as Class "D" (unarmed) or Class "G" (armed) security officers.

The assessment center is also housed in the School. This organization assists agencies in the screening and personnel selection activities for entry-level officers and criminal justice personnel. Regarding the latter, the organization helps with promotions as well. The School of Justice also serves as the College's Center for Homeland Security. In this capacity, the School has developed a series of Homeland Security training programs designed to prepare First Responders to defend against, and respond to, acts of terrorism or natural disasters.

School of Nursing

The School of Nursing offers two A.S. degrees and two Vocational Credit Certificate programs. The largest program is the Associate in Science degree in nursing, leading to eligibility to apply for the licensing examination for registered nurse practice (NCLEX-RN). Three options are 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. The second A.S. degree is Midwifery. This program prepares graduates to apply to take the Florida State Licensure Examination to become licensed midwives (LM). Licensed midwives provide independent, comprehensive maternity care to low-risk clients. Students entering either of these associate degree programs should possess at least 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 healthcare programs.

Two Vocational Credit Certificate programs can be completed in one year. The Practical Nursing program leads to eligibility to sit for licensure as an LPN (NCLEX-PN). Practical nurses provide direct care to patients under the supervision of a registered nurse or licensed physician. The Medical Assisting program provides graduates with the skills and knowledge to work in ambulatory settings in the front office, in clinical laboratories or to provide treatments under the supervision of the physician.

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 and air conditioning 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 someday 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 State Legislature, the Division of Vocational, Adult, and Community Education, the Division of Community Colleges 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 microcomputer 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

A Local ABA Training Provider

(Wolfson Campus)

The South Florida Center for Financial Training (SFCFT) is a local training provider of the American Bankers Association. 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 nonprofit educational organization which 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 AIB diplomas and certificates which 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 non-member of SFCFT. The fee is charged in addition to MDC tuition and is paid to SFCFT.

Community Education

Community Education 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 values the knowledge we acquire daily, that which we use for the rest of our lives, as the foundation of our learning experience.

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 Community Education, no academic credit gained and attendance standards are voluntary.

Continuing Workforce Education training courses are offered to improve employment-related skills for post-licensing 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 Community Education Department.

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.

Computer Institute

(Kendall Campus)

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.

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 marshal and use a host of continuing education resources to serve 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 CEU's will be provided.

Contract Training for Business and Industry

Through the School of Community Education, 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 which 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.

Environmental Center

(Kendall Campus)

The Environmental Center provides non-credit 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 K-9.
3. Nature-based Teacher Planning Day/ Holiday Camps serve the needs of working parents while sensitizing children Pre-K-7 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 non-traditional spirituality. Initiatives implemented in 2004-2005 included Native American cultural programs, expanded pine rockland research, development of community service project opportunities for high school students, and coming in the Fall of 2006, expansion of weekend recreational and educational programs for adults and families.

Earth Ethics Institute

(Collegewide; Located on the Wolfson Campus)

Earth Ethics Institute

Earth Ethics Institute (EEI) is an Earth Literacy resource center at Miami Dade College (MDC) serving administrators, faculty, staff and students as well as the greater South Florida community.

Earth Ethics Institute Mission

The mission of the Earth Ethics Institute is to foster Earth Literacy in the course objectives of each discipline throughout 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 inter-dependent 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

IDS 1920 EARTH LITERACY COLLOQUIUM AND EARTH FELLOWSHIP PROGRAM

Earth Ethics Institute encourages students to develop an understanding of Earth Literacy. The IDS 1920 Earth Literacy Colloquium 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. In addition, EEI sponsors an Earth Fellowship program, a non-credit opportunity to address Earth Literacy and employ activism in the community.

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 of Arts degree with 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 address legal areas of direct relevance to the practice of environmental law and prepare 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 awarding certificates and cash prizes for innovative entries. Participants are asked to explore

sustainable and regenerative ecological themes related to the specific disciplines. Two Challenge Grants are reoccurring: The Betsy Hilbert Writing Challenge and the Earth Ethics Institute 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 national 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 website www.earthethicsinstitute.org .

The Honors College

The Honors College is a collegewide community of student and faculty scholars who collaborate in an intellectually stimulating, enriching, challenging and supportive environment. Housed at Wolfson, North, Kendall and West 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 West 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 Department of Independent studies 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 Department of Independent Studies 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, business, management, history, social science, sociology, psychology and education. 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 department 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. In addition, all courses in this academic program include varied learning activities, timely feedback and the opportunity for accelerated completion.

Students should visit the Department of Independent Studies at Kendall Campus (online at www.mdc.edu/kendall/independent) for registration and course information. Students may also receive information from the advisement department of any MDC campus.

MEED Program

The Microcomputer Education for Employment of the Disabled Program (the MEED Program) has served individuals with disabilities in Miami-Dade County with distinction for nearly 20 years. It has received national recognition as a leader in its field and has been a model for other programs throughout the country. MEED provides individuals with disabilities, representing all populations of the disabled community, with a selection of college certificate and degree programs to prepare themselves for the 21st century workforce. The MEED approach includes a comprehensive, individualized career services program with resume preparation, mock interviews, job site visits, mentoring and internships in local businesses.

MEED offers motivated individuals the flexibility to pursue a variety of college-credentialed programs required to enter the fields of computers, business, medical services and travel/hospitality. MEED students can attend morning, evening and/or weekend classes at any of Miami Dade College's campuses.

In addition MEED students also receive career development training. They learn job-searching skills and receive individualized coaching throughout the job search process.

MEED students also enjoy the richness of the college experience uniquely available at Miami Dade College.

The length of the MEED training program depends on the student's ability to complete the program at his or her own pace. To contact a recruitment specialist in the MEED Program Office, students should 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 and Bachelor of Fine Arts degrees, Associate in Arts degree, and high school diplomas. Students are admitted on the basis of talent and commitment as demonstrated through audition or portfolio presentation. The school is located in downtown Miami on the Wolfson Campus of MDC.

Open College

Open College, part of MDC's Virtual College, offers courses in an independent study mode to students wishing to earn credits with a minimum of campus visits. Learning resources such as videotapes, audiotapes and computers are available to assist students. Faculty and students interact via telephone, fax, e-mail, appointments and scheduled review sessions. Open College courses are academically equivalent to on-campus courses. Open College students have the same privileges as on-campus students, including the use of libraries, computer courtyard labs, student services and participation in campus cultural events. Students may register in person, by mail, online or through the STAR System from a touchtone phone. To learn more about the Open College, students should visit the Open College's website at www.vcollege.mdc.edu/opencollege or contact the Open College on the Wolfson campus.

Outreach Program

The Campus Outreach Department provides college credit courses 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 small classes provide opportunities for increased interaction with instructors. Students who attend outreach classes also find a strong network of support from fellow classmates.

Prometeo Community Theatre

(Wolfson Campus)

This theater-based program helps to preserve Hispanic culture, values and language, and fosters a greater understanding among Miami's diverse ethnic community. Through workshops in acting, voice, history, make-up, dance, costume and stage direction, Prometeo trains individuals interested in a professional career in the theater arts.

Reserve Officers Training Corps

Miami Dade College, in cooperation with the University of Miami and Florida International University, permits full-time students to enroll in Air Force ROTC (through the University of Miami) and Army ROTC (through Florida International University). Students must be Associate in Arts degree candidates with plans to complete a baccalaureate degree. 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.

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. 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:

1. Academic assistance such as specialized counseling and tutorial service;
2. Credit for courses obtained in the armed services and through the College Level Examination Program (CLEP);
3. Full waiver of out-of-state tuition;
4. Full transfer of credits awarded by other accredited colleges and universities.

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, part of 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 successfully complete courses 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 successfully complete the Virtual College Student Orientation before registering for courses. 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 e-mail; 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 www.Vcollege.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 either 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. Classes are scheduled on Friday evenings, and on Saturday and Sunday in morning or afternoon blocks. Weekend College offers a selection of core, distribution and elective credit courses to satisfy degree requirements in A.S., A.A., and Certificate programs.

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.

W.L. Philbrick School of Funeral Service Education

(North Campus)

The W.L. Philbrick School of Funeral Sciences, located on the North Campus, was the first public community college program in the southeastern United States to offer a degree in Mortuary Science. The school has a full range of mortuary laboratories enabling students to do all training on campus. Over 150 bodies are embalmed and cosmetically prepared in the campus laboratories each academic year. A new on-campus chapel gives students a unique opportunity to work on all aspects of funeral preparation, including embalming, dressing and casketing bodies for viewing, and final services. All students must take the National Board Exam as required by the American Board of Funeral Service Education (ABFSE); however, the W. L. Philbrick School of Funeral Service Education requires all students must pass both sections (arts and sciences) with a grade of 75 or higher from The International Conference of Funeral Service Examining Boards, Inc. (National Board Exam). Funeral service graduates from MDC are qualified to practice in most states provided they have met the state of choice requirements for licensure. The School is accredited by the American Board of Funeral Service Education, Inc. (ABFSE), 3432 Ashland Avenue, Suite U, St. Joseph, MO 64506 phone: (816) 233-3747. The annual passage rate of first-time takers on the National Board Exam (NBE) is for the most recent three year period for this institution and all ABFSE Accredited Funeral Service Education Programs is posted on the ABFSE Web Site (www.ABFSE.ORG). For further information on this challenging field of study, students may contact the W. L. Philbrick School of Funeral Service Education, 11380 NW 27 Ave. Miami, FL 33167 phone: (305) 237-1245 or e-mail rcovert@mdc.edu . The School provides continuing education required for license renewal of Florida funeral directors, embalmers, and direct disposer licenses, and it conducts special seminars for the enrichment of funeral services personnel.

Study Abroad Programs

Miami Dade College is one of the 20 lead institutions of the Consortium for International Studies (CCIS). As a CCIS sponsoring member institution, the College is responsible for logistics for semester and summer programs in France, Costa Rica and Austria. 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 over 160 membership colleges and universities, both two and four year, public and private institutions. This partnership offers American undergraduates a choice of more than 70 study- abroad programs in over 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. Austria (Salzburg)
4. Bulgaria,
5. Canada,
6. China (Nanjing)
7. Costa Rica (Santa Ana and San José)
8. Czech Republic (Prague)
9. Denmark
10. Dominican Republic
11. Ecuador
12. England (London and Lancashire)
13. France (Aix-en-Provence, Nice, Annecy, Chambéry, Angers, Paris)
14. Germany (Berlin, Heidelberg)
15. Ghana
16. Greece
17. India
18. Ireland (Maynooth, Limerick, Galway)
19. Italy
20. Japan
21. Mexico
22. Morocco
23. New Zealand
24. Peru
25. Portugal
26. Russia
27. Scotland
28. Spain (Seville)
29. Switzerland

MDC's faculty-led short-term programs are Spring in Italy (May-June), Summer in France (June-July) and European Architecture. Several overseas foreign language programs are offered to College students, as well as to the business and professional communities. These immersion programs are short-term and intensive. Participation is not automatic and students must apply through the MDC Office of International Education/Study Abroad located on the Wolfson Campus. Most programs require a minimum 2.5 GPA. No previous study or knowledge of a foreign language is required as many of the courses are taught in English. 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 on the Kendall Campus (Campus Code 285). Restricted registration for study abroad courses is done with the assistance and authorization of the Office of International Education/Study Abroad. Most programs offer a "homestay" option (living with a local family or individual) which accelerates foreign 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.

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.

Dual Enrollment and Early Admission

(See Special Admissions Categories, page 16)

The Dual Enrollment program allows high school students (or home education students) to simultaneously earn college or vocational 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 Program (AP)
- Cambridge Advanced International Certificate of Education Examination Program (AICE)
- Certified Professional Secretary Examination Program (CPS)
- College Level Examination Program (CLEP)
- DANTES Subject Standardized Tests Program (DSSTs)
- Excelsior College Examinations Program (formerly Regents or ACT-PEP)
- International Baccalaureate Program (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 Evaluation 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. For additional information on standardized

test scores and course equivalencies, students should visit Florida's official online advisement website at www.facts.org (by clicking on Advising Manuals, then on AAC Credit-by-Exam Guidelines). Questions may also be answered from MDC's website at www.mdc.edu/eppa (by clicking on Accelerated Options).

Institutional Credit-by-Examination

Students who have been admitted to the College may receive credit for courses through departmental examinations. Applications for this type of credit are available from the 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 non-refundable fee of $15 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 Internatinal 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 grades or 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 dual and diverse High-speed OC 12 (622 megabits per second) fiber network backbone supporting voice, video and data. The network currently has 22,500 ports, with more than 15,400 in active status. It provides 50 megabits per second bandwidth connection to the Internet from diverse sites using two 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 request, 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 MDC Data Center is located in Jack Kassewitz Hall on the Kendall Campus. It hosts an IBM ES9672-Y46 mainframe with 8 gigabytes of main memory and 1.5 terabytes of storage. The mainframe 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.

Institutional Advancement

(District Office)

The District Institutional Advancement section has responsibility in three major divisions in carrying out its mission as the development organization for Miami Dade College: The 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 programs, special projects, student services, curriculum development, professional staff development, the construction of new facilities, exchange programs, research, new equipment and student scholarships. The Resource Development Department

also encourages public-private partnerships and collaboration with 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.

The 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. Over 1.5 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; however, alumni must 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 non-profit 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 representation from 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 individuals, 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 Miami Dade College 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 over 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. Today, the Endowed Teaching Chair program is in its fifteenth year with over 238 awards granted. 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.

Academic Offerings

Call us Essential ... Call us the College

MDC

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. This numbering system is used by all public postsecondary institutions in Florida and 33 participating non-public institutions. The major purpose of this system is to facilitate the transfer of courses between participating institutions.

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 Statewide Course Numbering System (SCNS). The list of course prefixes and numbers, along with their generic titles, is referred to as the "SCNS taxonomy." Descriptions of the content of courses are referred to as "course equivalency profiles."

EXAMPLE OF COURSE IDENTIFIER

Prefix	**Level Code** (first digit)	**Century Digit** (second digit)	**Decade Digit** (third digit)	**Unit Digit** (fourth digit)	**Lab Code**
SYG	**1**	**0**	**1**	**0**	
Sociology, General	Freshman level at this institution	Entry-Level General Sociology	Survey Course	Social Problems	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. (Exceptions are listed below.)

For example, a survey course in social problems is offered by 35 different postsecondary institutions. Each institution uses "SYG_010" to identify its social problems 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, "SYG" means "Sociology, General," the century digit "0" represents "Entry-level General Sociology," the decade digit "1" represents "Survey Course," and the unit digit "0" represents "Social Problems."

In science and other areas, a "C" or "L" after the course number 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, having the same prefix and course number without a lab indicator, which meets at a different time or place.

Transfer of any successfully completed course from one 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, SYG 1010 is offered at a community college. The same course is offered at a state

university as SYG 2010. A student who has successfully completed SYG 1010 at the community college is guaranteed to receive transfer credit for SYG 2010 at the state university if the student transfers. The student cannot be required to take SYG 2010 again since SYG 1010 is equivalent to SYG 2010. 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.

The Course Prefix

The course prefix is a three-letter designator for a major division of an academic discipline, subject matter area or sub-category 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 non-public post-secondary educational institutions to be academically equivalent to courses offered at the receiving institution, including equivalency of faculty credentials, regardless of the public or non-public 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

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 in the 900-999 series (e.g., ART 2905)
B. Internships, practical, clinical experiences and study abroad courses
C. Performance or studio courses in Art, Dance, Theater and Music
D. Skills courses in Criminal Justice
E. Graduate courses
F. Courses not offered by the receiving institution
G. For courses at non-regionally accredited institutions, courses offered prior to the transfer date of the course

College preparatory and vocational preparatory course may not be used to meet degree requirements and are not transferable.

Questions about the Statewide Course Numbering System and appeals regarding course credit transfer decisions should be directed to (Name of Institution Statewide Course Numbering System Contact) in the (Office where Institution Contact may be located) 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 Statewide Course Numbering System office at (850) 245-0427 or SunCom 205-0427.

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 follow will aid you in locating courses by prefix or discipline.

Prefix to Prefix Title to Statewide Discipline

*Vocational Certificate Courses (see pages 222-247)

*Vocational Certificate Courses (see pages 222-247)

*Vocational Certificate Courses (see pages 222-247)

*Vocational Certificate Courses (see pages 222-247)

*Vocational Certificate Courses (see pages 222-247)

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 over 2,000 college credit courses at Miami Dade. These courses are applicable to the Associate in Arts and/or Associate in Science degree programs.
They are listed in alphabetical order by title according to the State Course Numbering System directory of taxonomies. 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 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 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 owner's equity with emphasis on corporate financial statements. Other topics include plant assets, intangible assets, current and long-term liabilities. ACG 2001 and 2011 can be substituted for ACG 2021. Prerequisite: ACG 2001; Corequisite: ACG 2011L. (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**
Provides the accounting student with support to achieve the objectives of ACG 2021. Corequisite: ACG 2021. May be repeated for credit. (2 hr. lab)

ACG2031
Accounting Theory **3 credits**
Designed primarily for the transferring accounting major, this 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**
Provides the accounting student with support to achieve the objectives of ACG 2071. Corequisite: ACG 2071. 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 stocks and bonds. Prerequisite: ACG 2071. Special fee. (3 hr. lecture)

ACG2110
Intermediate Accounting 2 **3 credits**
Topics include intangibles, long-term debts, paid-in capital and retained earnings; includes extensive analysis and interpretation of financial statements. Prerequisite: ACG 2071. (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 variable 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)

ACG2450L
Microcomputers in Accounting Lab **2 credits**
Provides additional exposure to electronic spread sheets and other pertinent software. Corequisite: ACG 2450. Laboratory fee. (4 hr. lab)

ACG2500
Financial Management for Non-Profit Organizations **3 credits**
This course provides an overview of the way in which a non-profit organization is responsible for the financial management of the organization. Success of many non-profits centers on the feasibility of the group's fiscal policies. This course provides a systematic analysis of the financial and legal ground work for which non-profit administrators, board members and staff are responsible. (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 and 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)

ASC1120
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. Corequisite: ATT 1100, ASC 1210. (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**
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)

ATF1000
Introduction to Flight **3 credits**
This course provides an introduction to the basics of flight. Students will be introduced to basic flight maneuvers, ground reference maneuvers, navigation, and takeoffs and landings. (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 **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
Instrument Pilot Flight **3 credits**
This course provides the flight training required to safely conduct flight as an Instrument Rated Pilot. The training will be 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 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 ASC 1120, 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)

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; corequisites: ATF 2300 or 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 students for the FAA Instrument Written Exam. Private Pilot Certificate required. Prerequisites: ASC 1210, ATF 1100, ATT 1100; corequisites: ATF 2200. (4 hr. lecture)

ATT2131
Flight Instructor Theory **3 credits**
Provides the student with 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; corequisite: ATF 2501, 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)

ATT2140
Flight Engineer Theory **3 credits**
This course encompasses the salient requirements entailed in preparation for the Federal Aviation Administration's Basic Flight Engineer and Turbo-jet class rating written examinations. Prerequisites: Commercial Pilot's license ASC 1210, 1610, 2670. (3 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 in 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: ASC1210. (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 student's 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**
An 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)

AVM1101
International Routes **3 credits**
The study of national and international route structures. Includes study of route structure economics (why developed), city/airport codes (who serviced), regional business patterns (market segments available), and major environmental and social attributes. (3 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 nine 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 kowledge 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 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 covering the responsibilities of the airline ticketing procedures manual and automated (American Airlines 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**
This 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)

AVM2402L
Air 3 Lab **2 credits**
A simulation course using computers as input/output terminals. Introduces flight reservations procedures for a major airline reservation system. Includes basic accounting, processing and computer simulation of a management and/or marketing environment as a supplement to AVM 2510 and AVM 2515 requirements. Corequisite: AVM 2510, AVM 2515. Laboratory fee. (4 hr. lab)

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)

AVM2412
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. Implementation and control issues, financial management, budgets, costs and revenues as well as airport economics will be discussed. Prerequisites: AVM 2410. 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
and 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)

AVM2510
Airline Management **3 credits**
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)

AVS2000
Avionics **3 credits**
An examination of the basic applications electrical/electronic systems utilized in current aircraft; a foundation in the concepts and their circuitry as applied to power plant and airframe systems and control. Laboratory fee. (1 hr. lecture; 4 hr. lab)

Agriculture and 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, genitor-urinary, 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, and 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)

ATE1311L
Veterinary Office Procedures **1 credit**
This course is designed to acquaint the student with the mathematics and office procedures used in veterinary hospital management and veterinary computer applications. (2 hr. lab)

ATE1630
Pharmacology for
Veterinary Technicians **1 credit**
This course is designed to explain the drug classifications pertaining to animal use, methods of calculating appropriate drug dosage, routes of administration and evaluation of drug efficacy. (1 hr. lecture)

ATE1650L
Introduction to
Clinical Practice 1 **1 credit**
This course is designed to acquaint the student with basic laboratory and nursing skills, including restraint, history taking, examination room techniques, administration of medication, basic parasitology and basic clinical pathology procedures. (2 hr. lab)

ATE1940
Veterinary Clinical
Experience 1 **1 credit**
This clinical course is designed to guide the student through the application of skills learned in the introduction to Clinical Practice 1. The student will be assigned a veterinary site approved by the college and will perform in a supervised clinical setting (6 clinical hours for which the student receives no monetary compensation). (6 hr. clinic)

ATE1941
Veterinary Clinical
Experience 2 **2 credits**
This course consists of supervised clinical experience in a work place approved by the college. The competencies mastered in Veterinary Clinical Experience 1 will be reinforced while adding application of classroom knowledge in pharmacology, clinical laboratory procedures and surgical skills. The student receives no monetary compensation for the clinical hours. Prerequisites: ATE 1110, 1940; corequisite: ATE 2652L. (6 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)

ATE2501
Professional Development
and Ethics for the Veterinary
Technician **2 credits**
This course is designed to acquaint the student with the laws and agencies governing the care, use and movement of animals and livestock. Veterinary ethics, resume writing and employment skills, and current trends in veterinary practice will also be described. Prerequisite: ATE 1110; corequisite: ATE 2611. (2 hr. lecture)

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. Pre-requistes: ATE 1110, 1211; corequisites: ATE 2661, 2942, 2631, 2655L. (3 hr. lecture)

ATE2612
Small Animal Nursing 2 **3 credits**
A study of the basic concepts of nutrition, obstetric and pediatric care, as well as the important aspects regarding zoonotic diseases, public health and animal behavior. The student will also be introduced to alternative medicine, including holistic concepts, homeopathic, acupuncture, chiropractic and other emerging specialties. Prerequisites: ATE 1110, 2611, 2631, 2655L; corequisite: ATE 2050L (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, 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. Prerequisite: ATE 1110, 1211; corequisites: ATE 2611, 2655L. (3 hr. lecture)

ATE2636
Large Animal
Clinic and 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, ATE 1211; corequisite: ATE 2636L. (2 hr. lecture)

ATE2636L
Large Animal Clinic and
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 domestic animals. Prerequisites: ATE1110, 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. (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; corerequisite: ATE 1941. (1 hr.lab)

ATE2655L
Animal Nursing
and 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 preventive medicine and with the common diseases 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)

ATE2671
Lab Animal Medicine **2 credits**
This course will identify technical aspects of laboratory animal care, including restraint and handling, common diseases and nutrition. The animals studied include rabbits, rats, mice, guinea pigs, hamsters and primates. (2 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, 2631, 2655L. (2 hr. lecture)

ATE2722
Avian &
Exotic Pet Medicine **2 credits**
This course describes the exotic animal and avian medical care. Veterinary technicians will understand the idiosyncrasies of these species in order to become proficient and useful to the exotic and avian practitioner. (2 hr. lecture)

ATE2942
Veterinary Clinical
Experience 3 **2 credits**
This course provides clinical experience for the student under the supervision of a veterinarian. The competencies stated in Veterinary Clinical Experience 1 and 2 will be reinforced and additional skills in advanced veterinary technology will be demonstrated and experienced. The student receives no monetary compensation for the three clinical hours. Prerequisite: ATE 1941; corequisites: ATE 2631, 2655L. (3 hr. clinic)

ATE2943
Veterinary Clinical
Experience 4 **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**
Basic theories of plant nutrients, soil types, and survey of various fields in ornamental horticulture. Laboratory fee. (3 hr. lecture)

HOS1011
Horticulture 2 **3 credits**
The maintenance and management aspects of horticultural business (nursery facility or landscape maintenance and design) including irrigation systems, plant grown facilities, plant propagation equipment and landscape maintenance equipment. Hands-on practice in programming of plant production crops and nursery design in our nursery. Prerequisite: HOS 1010. Laboratory fee. (3 hr. lecture)

IPM2112
Principles of Entomology **3 credits**
The insects, mites, etc. that affect ornamental plants will be studied. Particular attention will be given to those environmental factors that may predispose the plant to infestation. Methods of prevention, eradication and control will be given for each organism. In as much as possible, these pests will be studied first-hand. A.S. degree credit only. (3 hr. lecture)

IPM2301
Pesticide Applications **3 credits**
In this course, students will learn how to use pesticides in a safe manner to humans, animals, the plants being treated and the environment in general. How to read a pesticide label, where to find information such as dosage, pesticide suitable for the plants, antidotes, application rates, LD-50 levels, state and federal regulations concerning pesticide application, re-entry times and safety equipment will be covered. Students will also be taught how to calibrate, fill, spray, empty and clean various types of spray equipment as well as the proper manner of pesticide disposal and the effects of pesticide usage upon the environment. A.S. degree credit only. (3 hr. lecture)

IPM2635
Introduction to
Plant Pathology **3 credits**
In this course diseases that affect plants will be studied. These will be looked at in conjunction with environmental factors contributing to a plant's susceptibility to a particular disease. Methods of prevention, eradication and control will be given for each specific disease. A.S. degree credit only. (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
and Maintenance **3 credits**
The design, maintenance and installation of nursery and landscape irrigation systems. All types of nursery systems will be covered including field, shadehouse and mist. Both sprinkler and low volume (drip) systems will be surveyed for appropriateness in nursery and landscape uses. Includes occassional weekend hands-on activities (3 hr. lecture)

ORH1251
Nursery Practices 1 **3 credits**
The techniques and practices in commercial production of ornamental plants. Emphasis on types of nurseries. Prerequisite: HOS 1010. Laboratory fee. (2 hr. lecture; 2 hr. lab)

ORH1510
Landscape Plant
Identification 1 **3 credits**
Designed to familiarize students with 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 identification and classification of plants used in the horticulture industry in South Florida. Prrequisite: ORH 1510. (3 hr. lecture)

ORH1840C
Landscape Construction **2 credits**
The analysis of landscape site, reading blueprint, site preparation for landscape installation, and hardscape construction including irrigation, wood, and concrete structures. Taught from a hands-on perspective; students will apply principles of landscape construction to site situations and be able to lay out all aspects from the first visit to the installation of plants. Occasional Saturday activities. 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. Installation procedures for bedding plants, shrubs, trees/palms, and vines will be covered as well as their standard maintenance procedures. Students will be required to become familiar with all plants and equipment names as well as their uses. A.S. degree credit only. (3 hr. lecture)

ORH2277
Foliage Plant Production **3 credits**
This course will emphasize the naming of foliage plants commonly used in South Florida. Plant propagation techniques such as the taking of cuttings, divisions, and seeds will be taught, along with aseptic and meristem culture. The various planting techniques will be presented. 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 credit only. (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 hardscape aspects of residental 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; 2 hr. lab)

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 **1-6 variable credits**
Offers practical work experience in ornamental horticulture. A work program tailored to the student's specialty in the program will be designed by the ORH 2949 Coordinator. Prerequisite: 30 credits in Landscape Technology. (12 hr. lab)

African-American Studies

AMS1031
American Culture **3 credits**
An interdisciplinary approach to the study of American society, culture, and basic institutions, emphasizing elements which may facilitate the acculturation process of non-native Americans. (3 hr. lecture)

Anthropology

ANT2100
Introduction to Archaeology **3 credits**
The nature of archaeology and archaeological investigation. Archaeological site survey and excavation procedures are presented along with the history of archaeology as a discipline. A survey of prehistoric development from the paleolithic through the rise of civilization is also included. (3 hr. lecture)

ANT2140
World Prehistory **3 credits**
The role of archaeology/anthropology in carrying out prehistoric research. the development of prehistoric social economic, political, communication, religious, and ideological systems around the world. The rise of civilizations in the old and new worlds is examined, with particular emphasis on Mesopotamia, Egypt, India, China, Mesoamerica, and South America. (3 hr. lecture)

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. Media 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 wood frame and masonry structures. Prerequisite: BCN 1251 or 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)

ARC1131
Architectural Presentation **3-4 variable credits**
Discussion, demonstration and application of multimedia used within the profession to present architectural and interior design subjects. Topics include, but are not limited to, pencil, ink, colored pencil, markers, watercolor, airbrush, model building, photography and portfolio layout. In- depth training will be provided in one or more of the media. Prerequisites: ARC 1115, 1301. Laboratory fee. (2 hr. lecture; 2-4 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-/CoRequisites: ARC 1126, 2701; Prrequisite: ARC 1301. Laboratory fee. (2 hr. lecture; 4 hr. lab)

ARC1949
Co-op Work
Experience 1: ARC **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. 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)

ARC2052
Architectural Computer
Techniques **1 credit**
An introduction to computer-aided architecture, including basic computer concepts, current hardware and software and their application in the solving of architectural problems. Prerequisite: ARC 1126. Laboratory fee. (1 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. Prerequisites: 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)

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: ARC 1302 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)

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 primarily for Architectural and Construction majors, covering the fundamentals of statics. Timber design emphasized. Prerequisite: MAC2114; Pre-/Corequisites: PHY2053, 2053L and ARC 1126, 2461. Laboratory fee. (3 hr. lecture; 2 hr.lab)

ARC2581
Architectural Structures 2 **4 credits**
Fundamentals of structural design: beams, columns, frames, axial force, shear, bending and torsion. Load-deflection behavior and properties of common structural materials. Steel design emphasized. Prrequisite: ARC 2580. Laboratory fee. (2 hr. lecture; 4 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. (3 hr. lecture)

ARC2765
An Introduction
to: Cities of the World **3 credits**
This course is a comparative study of contemporary cities both 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. An 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 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. 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)

ARH1006
Visual Fundamentals 1 3 credits
A course designed to introduce the student to the basic principles of aesthetics and visual arts history. The student, at this level, will experience the basic analytical approach to recognizing the formal qualities of works of art. Through discussion, lectures and written assignments the ground work will be put in place for the development of a visual vocabulary and the ability to recognize works of art and their place in the history of visual ideas. The information gained in this course is essential for success in the other course work of the program. (3 hr. lecture)

ARH2007
Visual Fundamentals 2 3 credits
A second year course designed to continue with the information presented in the first year, expanding on it and adding more complex aspects of those areas covered. Of particular importance during this period is the completion of a professional portfolio and the preparation of works for exhibition purposes. (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. Prrequisite: ARH 2050. (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. Special fee. (2 hr. lecture; 2 hr. lab)

ART1201C
Basic Design 3-4 variable 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 the ultimate goals. (1-2 hr. lecture; 4 hr. lab)

ART1202C
Two-Dimensional Design 3-4 variable 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 the ultimate goals. (1-2 hr. lecture; 4 hr. lab)

ART1203C
Three-Dimensional Design 3-4 variable 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 the 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 variable credits
ART 1205C is a studio art course that focuses 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 variable credits
Basic problems in free-hand 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 variable 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. Corequisite: ART 1802C. (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)

ART2114C
Advanced Ceramics 3-4 variable 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)

ART2150C
Jewelry and Metalsmithing 1 4 credits
An introduction to creative design as applied to jewelry, flatware and hollow ware 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)

ART2158C
Advanced Metals 4 credits
Individualized instruction in metal forming, specifically oriented toward the students' aesthetic concerns. May be repeated for credit. Prerequisite: ART 2150C, 2151C. (2 hr. lecture; 4 hr. lab)

ART2301C
Drawing 2 3-4 variable 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 variable 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 variable credits
Basic techniques of printmaking including relief prints (wood cut and wood engraving), intaglio (drypoint and etching) and lithography. Prerequisites: ART 1202C or 1300C. Laboratory fee. (1-2 hr. lecture; 4 hr. lab)

ART2401C
Printmaking 2 3-4 variable credits
Advanced techniques in printmaking. Prerequisite: ART 2400C. Laboratory fee. (1-2 hr. lecture; 4 hr. lab)

ART2402C
Advanced Printmaking **3-4 variable credits**
Individualized instruction on printmaking concepts specifically oriented toward the students' 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 variable 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 variable credits**
Advanced techniques in painting. Prerequisite: ART 2500C. (1-2 hr. lecture; 4 hr. lab)

ART2502C
Advanced Painting **3-4 variable credits**
Individualized instruction in painting concepts, specifically oriented to the students' aesthetic concerns. May be repeated for credit. Prerequisites: ART 2500C, 2501C. (1-2 hr. lecture; 4 hr. lab)

ART2600C
Computer Art **3-4 variable 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 variable 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 variable 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 variable credits**
Advanced sculpturing techniques. Prerequisite: ART 2701C. Laboratory fee. (1-2 hr. lecture; 4 hr. lab)

ART2703C
Advanced Sculpture **3-4 variable credits**
Individualized instruction in sculptural concepts, specifically oriented to the students' 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 variable credits**
Basic techniques in pottery designed - forming, decorating, glazing and firing. Prerequisites: ART 1202C or 1300C. Laboratory fee. (1-2 hr. lecture; 4 hr. lab)

ART2751C
Ceramics 2 **3-4 variable credits**
Advanced techniques in pottery design and preparation. Prerequisite: ART 2750C. Laboratory fee. (1-2 hr. lecture; 4 hr. lab)

ART2802C
Visual Arts Workshop **1-4 variable 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)

ART2938
Visual Fundamentals 3 **3 credits**
A third-year course designed to continue and expand upon the information presented in the first two years of study. The areas of investigation are more complex and directed toward a more individualized attention by discipline. Professional preparation is pursued in portfolio preparation, exhibition preparedness and art as business investigations. Curriculum is closely aligned with the student's individual course of study. (3 hr. lecture)

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 the 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)

ART2951
Seminar in Spanish Art **3 credits**
A combination of class preparation plus travel to include sketching, painting, native crafts, etc. Variable content depends on areas visited. Prerequisite: Permission of Department Chairperson. Offered through Overseas Study Program. (3 hr. lecture)

Asian Language

CHI1120
Elementary Chinese 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)

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 transferred 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)

BAN1156
Letters of Credit **3 credits**
Designed to teach the use of letters of credit and the examination of related documents.The subjects covered include shipping documents, mechanics of letters of credit, payment and reimbursement and document examination. Designed for credit personnel, management trainees, branch managers, letters of credit personnel. 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 examing 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; corequisites: BAN 1920, 2920. (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)

BAN1400
Trust Functions and Services **3 credits**
An overview of many generally accepted principles of the law of estates, trusts and agencies as it takes the student on a step-by-step study of trust functions and services encountered in the daily operation of a trust department. The appendices of the text contain illustrative instruments including a will, trust agreement, and investment management agency agreement. Designed for entry level trust employees and non-trust personnel at supervisory officer trainee levels or above. Principles of Banking is recommended as a prerequisite. A.S. degree credit only. (3 hr. lecture)

BAN1411
Savings and Time Deposit Banking **3 credits**
The historical development of savings institutions and the basic economic functions of the savings process.A review of the economics of the savings process in order to clarify important differences between financial savings by individuals or organizations and real savings that appear as capital formation. Different types of financial savings are reviewed in order to describe the system of financial flow from income to capital investment. Designed for entry-level to five years experience. 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, travelers checks and cross-selling. Identification of the services 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)

BAN1782
Bank Investments **3 credits**
The nature of the more important bank investments, to demonstrate the relationship of investment management to other functional areas of the bank, and to discuss the factors that affect investment strategies and decisions. Emphasis is on the basic principles with which investment personnel should be familiar- fundamentals such as the nature of risk, liquidity and yield; how each is measured and how they are related. 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)

BAN1811
Federal Regulation of Banking **3 credits**
Provides a comprehensive treatment of the "why" and "what" of federal bank supervision. Topics include agencies regulating banks, bank charters, bank reports and examinations, federal limitations on banking operations, and the regulation of bank expansion. Emphasis is on supervision rather than the role of the federal government as it indirectly influences the operations of banks through fiscal and monetary policy decisions. A.S. degree credit only. (3 hr. lecture)

BAN1949
Co-op Work Exp 1 **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)

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 loans and financial and various type 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)

BAN2746
Bank Control and Audit **3 credits**
Designed to develop an awareness of the basic concepts and processes behind the bank audit function as well as an understanding of the need for internal control in a banking environment. A.S. degree credit only. (3 hr. lecture)

BAN2781
Management of
Commercial Bank Funds **3 credits**
The sophisticated treatment of a central bank function offers the student an overall examination of funds management policies and practices conducive to liquify, safe risks and profitability, with special focus on spread management. Emphasis is on how the banker can successfully apply basic funds managemenent principles to an ever-changing financial environment. A.S. degree credit only. (3 hr. lecture)

BAN2784
Trust Management **3 credits**
The organization, operation, and services of the trust department. Some specific topics covered in the course are the board of directors; department accounting; trust investments; tax administration; trust automation; employee benefit trust; corporate trust administration; business development; trust profitability and issues in trust department management. Designed for trust officers. A.S. degree credit only. (3 hr. lecture)

BRC1001
Introduction to Banking **3 credits**
An introductory course to acquaint students with the banking institutions of the United States, including their financial and organizational structure, regulation, functions and other basic considerations that determine bank policy and the effects of such policy upon the community. (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)

BRC1602
Technology Applications
in Mortgage Financing **3 credits**
With most industries now incorporating technology into all aspects of operations, the mortgage/finance industry is no exception. On the contrary, by automating the mortgage application and underwriting process, mortgage processors and intake professionals have become a mobile industry. Additionally, the competition in the mortgage marketplace dictates that professionals in the industry stay on the cutting edge of technology. Prerequisite: CGS 1060 or obtain a passing score on the Computer Competency Test (CCT). 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 home ownership, sources of funds, types of mortgages and various community lending products as well as nontraditional 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. Topics include: 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 is a one-semester undergraduate course in which students survey the fundamental components of biochemistry. This course is specifically for students pursuing a bachelor's degree in secondary science education. The goal of this course is to offer students a greater appreciation of the chemistry of the biological processes. Prerequisites: CHM 3200. (3 hr. lecture)

BCH3023L
Introductory Biochemistry
Laboratory **2 credits**
This course is designed to introduce the student to common techniques in biochemistry and biotechnology. Prerequisites: CHM 3200, 3200L with a grade of "C" or better; corequisite: CHM 3023. (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 pineland, 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)

BOT2153C
Native Plant Community Installation and Management **3 credits**
The fundamental plant structure of South Florida plant communities as well as their installation and maintenance will be presented. A special focus will be upon the appropriate selection of species and their proper placement by hydro period and substrate. This course will assist those students preparing for careers in ecological restoration and park management. This is a combination lecture and lab course. Prerequisite: BOT 2150C. (2 hr. lecture; 2 hr. lab)

BOT3015
Survey of Plant Diversity **3 credits**
This course explores the plant kingdom and gives emphasis on sturcture, 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. Corequisite: BSC 1084L. (3 hr. lecture)

BSC1949
Co-op Work Experience 1: BSC **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)

BSC2010
Principles of Biology **3 credits**
This is the first sequence of two courses that deals with the principles of modern biology. It covers scientific process, the chemistry of life, the basics of metabolism, cell theory, cellular respiration, photosynthesis, and 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: BSC2010, 2010L: corequisites: BSC 2011L. Special Fee. (3 hr. lecture)

BSC2011L
Principles of Biology Lab 2 **2 credits**
This course is intended for majors students and complements the lecture course BSC 2011. As such, it functions to provide majors students with hands-on experience with laboratory exercises designed to complement the presentation of the principles of biology as they relate to evolution, biological diversity, form and function in plants and animals, ethology, ecology and conservation biology. Prerequisites: 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 function of the systems of the human body, emphasizing those aspects most pertinent to students in the nursing and allied health technology programs. Corequisite: BSC 2086L. Special fee. (3 hr. lecture)

BSC2086L
Human Anatomy and Physiology 2 Laboratory **1 credit**
Laboratory for BSC 2086. 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)

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 microsopic 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 and 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 BSC 4422 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 microsopes; preparation and measurement of laboratory solutions and reagents; protein/nucelic acid isolation and characterization procedures; and tissue culture techniques. Special emphasis will be placed on revelent laboratory safety techniques and the proper use and disposal of laboratory reagents, materials and biological specimens. Pre-reqisites: BSC 2010, 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**
The identification, morphology and physiology of bacteria, protozoa, fungi, rickettsiae and viruses, with emphasis on the effects on their activities upon human affairs. Prerequisites: BSC 2010, 2010L; corequisites: BSC 2011L and CHM 1033, 1033L. Special fee. (3 hr. lecture)

MCB2010L
Microbiology Laboratory **2 credits**
Laboratory of MCB 2013. Corequisite: MCB 2013. Laboratory fee. (4 hr. lab)

OCB1010
Introduction to
Marine Biology **3 credits**
An introdution 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)

PCB2340C
Field Biology **3 credits**
The plants and animals of South Florida, their natural history and ecological relationships. Some emphasis on basic biological principles as applicable to local phenomena. Field and laboratory work and collection, preservation and identification of local plants and animals will be stressed and at least bi-monthly field trips, both marine and terrestrial, will be made. Laboratory fee. (2 hr. lecture; 2 hr. lab)

PCB3043
Fundamentals of
Ecology **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)

PCB3060
Principles of Genetics **3 credits**
An introduction to molecular genetics, the mechanisms of chromosomal and cytoplasmic inheritance, cytogenetics and population genetics, which include mechanism of variation, recombination, mutagensis and cancerogensis. (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, 2011, PCB 3060. (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: BSC 2010, 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; corequisites: 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)

BCN1721
Building Construction
Planning and Cost Control **3 credits**
A study of the time/cost relationship for various building construction operations. Includes pre-planning and continuous scheduling of work flow and comparative analysis of actual and estimated costs for construction projects. Pre/corequisite: ARC 2052. (3 hr. lecture)

BCN1930
Building Construction
Special Topics **3 credits**
An introductory survey course for the student presently working in the building construction industry desiring to begin formal study. Subjects discussed include analysis of the building construction industry, building and safety codes, plan interpretation, construction specifications, estimating, management, human relations, job opportunities, wage scales, profits and short and long range opportunities. (3 hr. lecture)

BBCT1743
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; lab or 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, cost 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: BCT1600. 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

BUL2130
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, suretyship, 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**
A course designed to provide the non-science major with an introductory study of the substances central to our daily lives. There are no prerequisites for this course and it requires a minimum level of math. The basic chemistry of nutrition, medicines, cosmetics, household cleaners and the environment are among the subjects investigated. This course will fulfill the general education physical science requirement for non-majors. It does not serve as a preparation course for CHM1045. Special fee. (3 hr. lecture)

CHM1020L
General Education
Chemistry Laboratory **1 credit**
Laboratory for CHM 1020. Corequisite: CHM 1020. Laboratory fee. (2 hr. lab)

CHM1025
Introductory Chemistry **3 credits**
Elementary principles of modern chemistry, including concepts of atomic and molecular structure, chemical bonding, stoichiometry, and the properties of solutions. Required of all students who do not meet the prerequisites for CHM 1045. Pre/corequisite: MAT1033 or acceptable score on the Algebra Placement Test. Special fee. (3 hr. lecture)

CHM1025L
Introductory Chemistry Lab **1 credit**
Laboratory for CHM 1025. Pre/corequisite: MAT 1033 or acceptable score on the Algebra Placement Test; corequisite: CHM 1025. Laboratory fee. (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 and organic chemistry and some biochemistry and the applications to physiological functions. Pre/co-requiste: MAT 1033; corequisite: CHM 1033L. (3 hr. lecture)

CHM1033L
Chemistry for
Health Sciences lab **1 credit**
Laboratory for CHM 1033. Corequisite: CHM 1033. Laboratory fee. (2 hr. lab)

CHM1045
General Chemistry and Qualitative Analysis **3 credits**
First half of the CHM 1045-1046 sequence for science, pre-medical 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: CHM 1046L. Special fee. (3 hr. lecture)

CHM1046L
General Chemistry and 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 and 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 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 Co-operative Education Office to obtain registration approval. (3 hr. lecture)

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)

CHM2210
Organic Chemistry **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 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 **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 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-base equilibria and titrations; precipitation and complex formation; electrochemistry; oxidation-reduction; spectrophochemical 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)

CHM4604
Intermediate Inorganic Chemistry For Secondary Science Teachers **3 credits**
This course is designed to expand and deepen the student's knowledge of general inorganic chemistry. Topics covered include: bonding theories, nuclear chemistry, coordination chemistry, chemical periodicity, qualitative analysis, and metal and non-metal chemistry. This course addresses several specific Sunshine State Standards, subject matter competencies, and pedagogy pertinent to the discipline and required certification. Prerequisites: CHM 3120, 3120L, 3200, 3200L with a grade of "C" or better; corequisite: CHM 4450L. (3 hr. lecture)

CHM4604L
Intermediate Inorganic Chemistry For Secondary Science Teachers Laboratory **2 credits**
Experiments and exercises will be conducted to strengthen the student's understanding of general inorganic chemistry. This course addresses several specific Sunshine State Standards, subject matter competencies and pedagogy pertinent to the discipline and required certification. (4 hr. lab)

Computer Science and Related Technologies

CAP1700
Introduction to Computer Graphics Programming **4 credits**
An introduction to the fundamentals of interactive computer graphics. Concepts of systems organization and device technology for display; 2D and 3D viewing and shading and coloring will be introduced in a hands-on environment. Students are required to design screens and generate the appropriate source code to produce their designs on the computer. Prerequisite: COP 1170, or acceptable score on the Algebra Placement Test. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

CAP2047
User Interface Design **4 credits**
The course will cover designing and developing different interfaces for games. Concepts covered include: using different input/output hardware devices, creating and using existing interfaces for different types of hardware, understanding the limitation of different hardware, and understanding the development process for different systems. Students will work with different interface devices during the development of games, such as: joysticks, game pads, mice, 3D glasses and motion sensors. Pre/corequisite: COP 2334. Laboratory fee. (3 hr. lecture; 2 hr. lab)

CAP2048
Game Development Project **4 credits**
In this course, students work in teams, emulating the real world game deelopment environment, to create a fully workable game, which is presentable to end-users/customers. Students will synthesize all the skills acquired in courses previously taken in the game course sequence. Finished projects will include code structure and documentation. Pre/corequisite: CAP 2046 "Artificial Intelligence" and CAP 2047 "User Interface Design". Laboratory fee. (3 hr. lecture; 2 hr. lab)

CEN1301
Supporting Microsoft Clients **4 credits**
This course provides the information and skills necessary to implement and maintain a Microsoft client operating system. The student will develop the skills to: install the Microsoft client operating system, install and support hardware devices and drivers, identify and resolve boot process issues, configure desktop settings, configure security settings for Internet Explorer, configure computers to run the Microsoft client operating system in a Windows networking environment, and configure and support computers for mobile computing. A combination of lectures, demonstrations, discussions, on-line assignments, and hands-on labs are used. Prerequisites: CGS 1060, CEN 1511. Laboratory fee. (3 hr. lecture; 2 hr. lab)

CEN1304
Managing a Windows Server Environment **4 credits**
This course provides the information and skills necessary to implement and maintain a Microsoft server operating system. The student will develop the skills to: install the Microsoft server operating system, manage accounts and resources, maintain server resources, monitor server performance, and safeguard data in a Microsoft server environment. A combination of lectures demonstrations, discussions, on-line assignments, and hands-on labs are used. Prerequisites: CGS 1060, CEN 1511; corequisite CEN 1301. Laboratory fee. (3 hr. lecture; 2 hr. lab)

CEN1511
Networking Technologies **4 credits**
This course will provide an introduction to the technical areas of network connectivity, data communications, and communication protocols. With 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)

CEN1536
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 sell as the experienced network professional. Prerequisites: CGS 1060 and CEN 1511. Laboratory fee. (3 hr. lecture; 2 hr. lab)

CEN2305
Implementing a Networking Infrastructure **4 credits**
This course will provide the knowledge and skills necessary to develop a Windows 2000 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. Prerequisite: CEN 1304. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

CEN2306
Implementing Directory Services **4 credits**
This course provides the information and skills necessary to successfully plan, implement, and troubleshoot a Microsoft server Active Directory infrastructure. The course focuses on the Microsoft server directory service environment, including forest and domain structure, Domain Name Systems (DNS), site topology and replication, organizational unit structure and delegation of administration, Group Policy, end user, group, and computer account strategies. Prerequisite: CEN 1304. Laboratory fee. (3hr. lecture; 2 hr. lab)

CEN2320
Upgrading MCSE Skills **4 credits**
This course will provide the information and skills necessary to support Windows-based network environments.This course is intended for Advanced Microsoft Windows professionals with experience planing, implementing, and supporting a Microsoft Windows Active Directory service network. This is a performance-based course, designed around the job-related tasks a support professional must perform using new or modified features in the Windows operating system. The objectives will also assist individuals certified as Microsoft Certified Systems Engineers (MCSE) to prepare for certification upgrade exams. A combination of lectures, demonstrations, discussions, online assignments, and hands-on labs are used. This course may be repeated up to (3) times when there has been a significant version update. Prerequisites: CEN 2321; completion of previous version's MCSE Certification or equivalent experience. Laboratory fee. (3 hr. lecture; 2 hr. lab)

CEN2321
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: CEN 2306. Laboratory fee. (3 hr. lecture; 2 hr. lab)

CEN2323
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: Cen 2305; may be waived for individuals with current MCSA certification or equivalent experience. Laboratory fee. (3 hr. lecture; 2 hr. lab)

CEN2327
Designing a Networking Infrastructure **4 credits**
The prospective network student is provided with the information and skills needed to create a networking services infrastructure design that supports the required network applications. Students provide network solutions based on the needs of an organization. Prerequisites: CGS 1060, CEN 2506. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

CEN2329
Managing Windows 2000 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 2000 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: CEN 2305. Laboratory fee. (3 hr. lecture; 2 hr. lab)

CEN2537
Advanced 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: 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. Prerequisite: CEN 1536. Laboratory fee. (3 hr. lecture; 2 hr. lab)

CEN2545
Hardening the Infrastructure **4 credits**
This course explores concepts of network defense and countermeasures as well as hardware and software required to design, configure, and implement secure networks. Students install and use various security tools; learn techniques for collecting, monitoring, and auditing security activities; analyze threats and intrusions for various business scenarios; and learn how to apply security policies to protect normal business operations. This course prepares students for the SCNP Hardening the infrastructure certification exam. May be repeated up to three times with different versions of the software when there have been substantial or significant version changes. Pre/crequisite: CTS 1312 may be waived for individuals with current Security + certification or equivalent experience. (3 hr. lecture; 2 hr. lab)

CEN2546
Network Defense and Countermeasures **4 credits**
Students explore concepts of network defense and countermeasures. Topics covered include the fundamentals of defending networks, layered defense, defense-in-depth strategies, the design and implementation of firewalls; Microsoft ISA Server and Linux IP chains; Virtual Private Networks (VPN's); intrusion detection systems (IDS); risk analysis and security policies. A combination of lectures, demonstrations, discussions, online assignments, and scenario-based projects are used. This course prepares students for the SCNP NDC certification exam. This course may be repeated up to three times with different versions of the software when there have been substantial or significant version changes. Pre/corequisite: CEN 2545 Hardening the Infrastructure or equivalent knowledge. Laboratory fee. (3 hr. lecture; 2 hr. lab)

CET1600
Networking Fundamentals **4 credits**
This is the first of the four-course Cisco curriculum that will lead the student toward the goal of achieving professional certification as a Cisco Certified Network Analyst (CCNA). Instruction includes networking, network terminology and protocols, network standards, LANs, WANs, the OSI reference model, cabling, cabling tools, routers, router programming, LAN/WAN topologies, IP adressing and network standards. Students will install, configure and operate simple-routed LAN, routed WAN and switched LAN and LANE networks. Prerequisites: CGS 1060 and CGS1560 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 adapaters and pointing devices is covered. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

CET1610
Router Technology **4 credits**
This is the second of the four-course Cisco curriculum that will lead the student toward the goal of achieving professional certification as a Cisco Certified Network Analyst (CCNA). Instruction includes networking, network terminology and protocols, network standards, LANs, WANs, OSI models, Ethernet, Token Ring, Fiber Distributed Data Interface (FDDI), TCP/IP Addressing Protocol, dynamic routing, routing, and the network Administrator's function. Students will successfully implement beginning router configurations, demonstrate an understanding of routed and routing protocols and the fundamentals of LAN switching. Pre/corequisite: CET1600. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

CET2615
Advanced Router Technology **4 credits**
This is the third of the four-course Cisco curriculum that will lead the student toward the goal of achieving professional certification as a Cisco Certified Network Analyst (CCNA). Instruction includes networking, network terminology and protocols, network standards, LANs, LAN segmentation techniques, IP and IPX addressing, Fast Ethernet, the Spanning Tree Protocol, virtual LANs, LAN switching and VLANs, advanced LAN and LAN switched design, Novell IPX, Network management techniques and threaded case studies. Prerequisites: CET1600, CET 1610. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

CET2620
Project-Based Learning **4 credits**
This is the fourth and final course of the Cisco curriculum that will lead the student toward the goal of achieving professional certification as a Cisco Certified Network Analyst (CCNA). Instruction includes networking, network terminology and protocols, network standards, advanced network design and management projects, WAN theory and design, WAN technology, PPP, Frame Relay, ISDN, network troubleshooting, national SCANS skills and Threaded case studies. This course is designed for students majoring in computer hardware and people from the industry already working in networking. Prerequisites: CET 1600, CET 1610, CET 2615. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

CGS1060
Introduction to Microcomputer Usage **4 credits**
Introduces information processing, the operation of a microcomputer and usage of an operating system. Applications in word processing, integrated electronic spreadsheets and electronic filing system are presented. A portion of the course covers elementary computer programming. Students are required to use and operate a microcomputer, use application software, write and run computer programs. 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)

CGS1501
Wordprocessing Applications **4 credits**
A comprehensive course in the use of a wordprocessor for microcomputers. The concepts, features and commands of a wordprocessor 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. CGS 1100 or computer experience is required. Laboratory fee. A.S. degree credit only. (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 1100 or computer experience is required. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

CGS1546
Microsoft SQL Administration **4 credits**
An introductory database administration course, in which students learn to install, administer and optimize an enterprise-level database system. Emphasis on using SQL to define databases, tables, stored procedures and constraints. Prerequisite: CGS 1541. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

CGS1560
Microcomputer Operating Systems **4 credits**
A comprehensive course in the use of operating systems for microcomputers. The concepts, features, and commands of an operating system 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)

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 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)

CGS1810
Microcomputer Help Desk 1 **4 credits**
This course is designed to teach students practical PC Help Desk skills. Students learn to use appropriate troubleshooting, diagnostic and problem resolution techniques to resolve PC software and hardware problems. Real world situations are addressed through a combination of lectures and demonstrations and an emphasis on practical, intensive laboratory activities. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

CGS1871
Multimedia and Animation **4 credits**
An introduction to using and producing multimedia. Introduces main concepts, components and use. Hardware and software considerations and requirements are covered. Design and presentation considerations and methods are explored. Students will produce multimedia presentations and be introduced to authoring systems. Prerequisites: CGS 1060 or CGS 1110 or experience with using computers and wordprocessing. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

CGS2092
Professional Ethics and Social Issues in CS **4 credits**
This course explores the legal, ethical and social issues relevant to information technology, the roles and responsibilities of computer professionals, and the development and implementation of network use and security policies. Students will develop, manage and assess network use and security policies for the workplace by formulating standards of compliance, record-keeping procedures and employee guidelines; investigating and documenting actual use and practices; and performing network audits. Laboratory fee. (3 hr. lecture; 2 hr. lab)

CGS2172
Implementing a Commerce-Enabled Web Site **4 credits**
This course provides students with the knowledge and skills necessary to implement, support, maintain, optimize and troubleshoot Web sites using Microsoft Site Server, focusing particularly on electronic commerce (e-commerce) sites. Prerequisites: COP 2333, Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

CGS2405
Advanced C++ Programming **4 credits**
An advanced application programming course using the "C" language. Emphasis will be on the design and use of structured computer algorithms for problem solving using "C". Topics covered will include the design of independent modules, processing of text data as input, advanced sorting techniques, various file handling techniques, advanced data manipulation and data structures. Students are required to design, code, compile, debug and execute programs. Prerequisite: CGS 1060. Laboratory fee. (3 hr. lecture; 2 hr. lab)

CGS2423
"C" For Engineers **4 credits**
A programming course using the programming language "C". The programming cycle - design, code, compile and execute, is applied to elementary engineering and science majors. Prerequisite: computer skills or CGS 1060, and MAC 1105 or higher level mathematics is required. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

CGS2547
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: CGS 1546. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

CGS2548
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: CGS 2547. A.S. degree credit only. (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)

CIS1949
Co-op Work Experience 1: CIS **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. A.S. degree credit only. (3 hr. lecture)

CIS2321
Introduction to
Systems Analysis and Design **4 credits**
The design of management information systems using the concepts of charting, investigating, documenting and reporting is developed using current information systems. The related concepts of management, organization, computers, information processing and the systems approach are combined and applied to case atudies. Prerequisite: ACG 2001, CGS 1060 or CIS 1000 or COP 1170. 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 registration approval. A.S. degree credit only. (3 hr. lecture)

COP1170
Introduction to
Visual Basic **4 credits**
BASIC syntax is used for developing programs for the solution of various business applications. The topics of program design, arrays, structured programming, report generation and file processing are included. This course may be taken by those not majoring in Business Data Processing. Knowledge of high school algebra is recommended. Laboratory fee. (3 hr. lecture; 2 hr. lab)

COP1220
Introduction to
C++ Programming **4 credits**
Introduction to Programming in "C" covers the syntax and rules of the "C" language. Students are required to code, compile, and execute programs. The topics of program design, structured modular programming arrays, report generation and file processing are included. Recommended for Computer Science and Business Data Processing majors. No previous computer courses are required although CGS 1060 is recommended. (3 hr. lecture; 2 hr. lab)

COP1822
Web Page
Design and Programming **4 credits**
This course will provide an introduction to the World Wide Web and Hypertext Markup Language. Emphasis on understanding the components necessary to create WWW pages. Topics covered will include the history of the world wide web as well as HTML. Formatting tags, anchors, graphics, interactive graphics and forms will be covered. The windows platform will be used for page creation and Internet exploration. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

COP2171
Advanced Visual
BASIC Programming **4 credits**
Advanced study of the syntax and rules of the BASIC interactive language. Programming business applications for microcomputers/minicomputers using various file organization methods. Prerequisite: COP 1170. Laboratory fee. (3 hr. lecture; 2 hr. lab)

COP2332
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, client/server solutions. Also it will prepare students to take Microsoft's Certification Exam for Distributed Applications with Microsoft Visual Basic. This is a required course for MCSD and elective for MCDBA. Prerequisites: COP 2333. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

COP2333
Advanced OOP
in Visual Basic **4 credits**
Covers the design, implementation, testing and documentation of medium-sized business application programs, written in Microsoft Visual Basic. Students will create one or two projects which are designed and managed by the instructor. The course emphasizes Vbasic mastery, database transaction processing, authorizing help files and calling DLL functions. Students will be evaluated on the quality of their work, according to professional standards. Prerequisite: Completion of COP 2171 or the equivalent professional experience. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

COP2334
Object Oriented
Programming in C++ **4 credits**
Advanced study of the "C" language with emphasis on object-oriented programming, graphics and list processing. Students are required to design, code, compile and execute programs for the business and scientific environment. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

COP2612
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, multi-user functionality, communications and establishing interfaces. Prerequisites: CGS 1060, COP 1170, and COP1220. Laboratory fee. A.S. degree credit only. (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)

COP2740
Introduction to
Oracle: SQL and PL/SQL **4 credits**
This course offers students an extensive introduction to data server technology. The class covers the concepts of both relational and object relational databases and the powerful SQL and PL/SQL programming languages. Students are taught to create and maintain database objects and to store, retrieve and manipulate data. In addition, students learn to create PL/SQL blocks of application code that can be shared by multiple forms, reports and data concepts. This class is preparation for both the Oracle Application Developer and Database Administrator Certification Exams. Prerequisite: Familiarity with data processing concepts and techniques. Laboratory fee. A.S degree credit only. (3 hr. lecture; 2 hr. lab)

COP2741
Introduction to Oracle
Database Administration **4 credits**
This course is designed to give the Oracle database administrator (DBA) a firm foundation in basic administrative tasks. Through instructor-led learning, structured hands-on practices and challenge-level exercise labs, the DBA will gain the necessary knowledge and skills to set up, maintain and troubleshoot an Oracle7 or Oracle8 database. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

COP2742
Intermediate Oracle
Database Administration **4 credits**
This course introduces students to the critical task of planning and implementing database backup and recovery strategies and to the trends and problems associated with business networking. Backup and recovery techniques and various backup, failure, restore and recovery scenarios are introduced. Generic backup, restore and recovery operations that apply to both Oracle7 and Oracle8 database environments, the Oracle8 Recovery Manager is also discussed. Students will learn the various solutions required to tackle problems associated with business networking. Implementation of solutions, Net8 architecture and peer connections are covered. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

COP2744
Oracle Database Performance Tuning **4 credits**
This course introduces students to a series of tuning steps which can be used to improve the performance of the Oracle8 Server. The focus is on database rather than specific operating system performance issues. Through a combination of demonstrations, lectures, online lab exercises and slide presentations, students will gain 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. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

COP2745
Programming PL/SQL in Oracle **4 credits**
This course enables students to learn how to write PL/SQL procedures, functions and packages. Working in both the Procedure Builder and the SQL Plus environments, students will learn how to create and manage PL/SQL program units and database triggers. Students will also learn how to use some of the Oracle-supplied packages. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

COP2746
Introduction to Oracle Database Applications **4 credits**
In this course, students will learn how to build and test interactive applications and will work in a graphical user interface (GUI) environment. They will learn how to customize forms with user input items such as check boxes, list items and radio groups. Students will also learn how to modify data access by creating event-related triggers. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

COP2747
Intermediate Oracle Database Applications **4 credits**
In this course, students will gain an opportunity to broaden their Developer/2000 form-building skills. They will use Project Builder to manage application files and multiple transactions across modules. Students will also learn how to create multiple-form applications and will practice enhancing their applications with custom menus, reports and charts. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

COP2748
Oracle Report Building **4 credits**
In this course, students will build a variety of standard and custom reports in a client-server environment. Working in a graphical user interface (GUI) environemnt, students will learn how to retrieve, display and format data in many styles to create tabular, matrix, mailing label and letter reports. They will also learn how to customize more complex reports, embed graphical charts in reports and use the Intelligent Remote Reports Server. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

COP2800
Java Programming **4 credits**
This course is an intermediate programming course using the Java computer language. Students are required to code, compile and execute programs. Object-oriented programming techniques as they are applied in event driven programming will be presented. Practical examples of object-oriented programming for the World Wide Web will be studied. Prerequisites: COP 1220. Laboratory fee. A.S. degree credit only. (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 technologies in multi-tiered web environmentsaccessing 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 1822, and COP 2800. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

COP2823
ASP/Script Language Programming **4 credits**
The prospective web support professional will learn the skills necessary to create server-side scripts using Active Server Pages. Building, maintaining and implementing these scripts allow the student an opportunity to create fully-functional Web applications that solve everyday business problems. Prerequisites: CGS 1060, COP 1170, COP 2800. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

COP2825
Implementing an Internet Server **4 credits**
This course provides students with the knowledge required to implement, support, and maintain Internet servers. Both Microsoft and Apache servers are covered. Prerequisite: COP 2612 Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

CTS1101
Introduction to Windows **2 credits**
Introduction to the Microsoft Windows ™ 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)

CTS1312
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: CEN 2305. Laboratory fee. (3 hr. lecture; 2 hr. lab)

CTS2184
Implementing and Managing Microsoft Exchange Server **4 credits**
This course provides the information and skills necessary to implement and maintain Microsoft Exchange Server as a messaging and collaboration system on the Microsoft Windows platform. The student will develop the skills to: install Exchange, upgrade from prior versions of Exchange, integrate Exchange Server with other messaging and collaboration platforms, deploy clients, set up user collaboration features, configure security options, implement public folders, and develop and apply a disaster recovery plan. A combination of lectures, demonstrations, discussions, online assignments,- and hands-on labs are used. Prerequisite: CEN 2306. Laboratory fee. (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 troubleshooting 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: CEN 2306. 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 performing 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: CEN 2305. Laboratory fee. (3 hr. lecture; 2 hr. lab)

CTS2550
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)

CTS2700
Design Business Solutions **4 credits**
This course teaches students to use the appropriate Microsoft Solutions Framework (MSF) models and processes to create conceptual, logical and physical designs for a business solution. Participants will also learn how to select suitable technologies and architecture for their solutions, based on trade-off analysis. At the end of the course, students will be able to: Use the MSF Process Model and MSF Application Model to develop conceptual, logical and physical designs of a business solution, address the issues involved in designing a user interface, and produce a baseline functional specification that can be used to develop a business solution. Prerequisites: COP 2333, Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

DIG1705
3D Programming 1 **4 credits**
This course provides students with a foundation in 3D programming which will allow them to develop programs involving 3D vector graphics in Visual C++, while using popular graphics libraries such as DirectX and OpenGL. Students will learn to rotate, scale, translate and texture map 3D objects using matrix operations. Programs developed will use a graphical interface, keyboard and mouse. Students will also explore basics of 3D Engine development for modern games. Prerequisite: CAP 1041: Level Building and Design, COP 1220, and MAC 1105. Pre/corequisite: COP 2334. (3 hr. lecture; 2 hr. lab)

DIG1710
Introduction to Game Development **4 credits**
This course will provide basic knowledge on the various aspects of the game industry, covering topics such as: types of game development careers, game development and design processes, marketing themes, copyright laws, game company structures, various types of programming languages used by different types of games, and the impact of video games on modern society. The students will learn general programming concepts and how to use common game development environments. Prerequisites: a working knowledge of the Microsoft operating system and Microsoft Office application suite. Laboratory fee. (3 hr. lecture; 2 hr. lab)

DIG1712
Level Building and Design **4 credits**
Students will create design documents for different genres of game levels, creating new levels for existing games, by using development tools for designing and building game levels. Students will also learn what is required to create level building and design tools for level designers. Prerequisite: A working knowledge of the Microsoft operating system and Microsoft Office application suite. Laboratory fee. (3 hr. lecture; 2 hr. lab)

DIG2625
Network Programming for Game Development **4 credits**
This course introduces the student to network programming, hierachy of networks and communication in a distributed computing environment. Topics covered include: network technologies, architecture, protocols, network programming, multi-player games and sockets. Programs will be written to operate across different network environments using C/C#/C++ and their existing libraries such as DirectX, Net Framework and other popular development kits. Prerequisite: COP 1220. Pre/Co-requiste: COP 2334. Laboratory fee. (3 hr. lecture; 2 hr. lab)

DIG2626
Artificial Intelligence **4 credits**
This course covers key aspects of Artificial Intelligence (AI) including the origins and history of Artificial Intelligence, current and future uses of AI, AI methods algorithms such as: path planning, stimulus-response agents, agent architectures, decision-making systems, game trees, neural networks and genetic algorithms. Students will create and modify existing games to include an AI system. Pre/corequisite: COP 2334 Laboratory fee. (3 hr. lecture; 2 hr. lab)

DIG2714
Systems Analysis for Game Development **4 credits**
This course provides the student with a foundation in the study of principles and practices of systems analysis for game and application development. The concepts delivered will include software quality assurance, process models, requirements analysis, design methodologies, testing and maintenance. Class work will include hands-on experience building a game using the extreme programming life cycle model. Students working in teams develop all life cycle deliverables for the game: requirements document, specification and design documents, system code, test plan and user manuals. Pre/corequisite: COP 2334. Laboratory fee. (3 hr. lecture; 2 hr. lab)

DIG2771
3D Programming 2 - Virtual Reality **4 credits**
This course covers all key aspects of advanced 3D programming, teaching students how to program special effects and realism for games by using: illumination, shading, reflections, collision detection/reaction, light mapping, sound, music, alpha blending, fog and applying basic Newtonian physics to objects. At the completion of this course, students will have an understanding of 3D game engines for real-time game rendering design. Students will also use different input devices for their games. Prerequisite: CAP 1042 3D Programming 1. Pre/corequisite: COP 2334. (3 hr. lecture; 2 hr. lab)

Cooperative Education

COE1949
Orientation: Career and Cooperative Education **3 credits**
Career Orientation and Co-operative Education is a practicum in which a student works individually with a Co-op counselor, selecting a career, outlining an academic plan, planning for a two or four-year degree program, and preparing to enter the Co-operative Education program. Students will take personality and vocational inventories, complete a (Transition) course workbook, explore job opportunities in Miami-Dade, do real interviewing of professionals, complete media and library research, determine academic objectives, set goals as well as learn resume and interviewing procedures, and learn how to enter the Co-op programs at MDC and senior institutions. (3 hr. lecture)

Criminal Justice and 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 **1-3 variable 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. (1-3 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)

CCJ1210
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)

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)

CCJ2482
Criminal Justice
Ethics and Professionalism 3 credits
This course will provide students and entry-level criminal justice practitioners with an overview of moral, ethical and professional issues and dilemmas facing individuals and organizations within the criminal justice system. It will help individuals to define and implement ethical and professional standards by examining what they will be confronted with and how to respond appropriately. Prerequisite: CCJ 1020 (3 hr. lecture)

CCJ2500
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)

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. Prrequisite: to be arranged by/with the instructor. (3 hr. lecture; plus field experience)

CCJ2949
Co-op Work
Experience 2:CCJ 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. 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)

CCJ2995
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.

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)

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)

CJD2310
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)

CJD2320
Police Mid-Management 3 credits
A follow-up to the supervision course. Enhancement of managerial awareness and managerial skills. The areas covered are organization and management; decision-making and planning, working with people; personnel and records; operations and current court decisions. It is recommended that the participants in this course be filling a supervisor's or mid-manager's position within an agency at the time of attendance. (3 hr. lecture)

CJD2702
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)

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.)

CJD2720
Law Enforcement Legal 3 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)

CJD2721
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)

CJD2722
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)

CJD2723
Vehicle Operations 2 credits
Physical, civil and criminal aspects, as well as components of the police driving environment are explored, and practical exercises on the driving range are conducted. This course is limited to School of Justice students only. (2 hr. lecture)

CJD2724
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)

CJD2740
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)

CJD2741
Emergency Preparedness **1 credit**
Skills needed for riot and disturbance control and firefighting are studied and practiced. Lecture includes methods of riot prevention and handling of unusual occurrences. This course is limited to School of Justice students only. (1 hr. lecture)

CJD2742
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)

CJD2771
Criminal Justice Legal 2 **1 credit**
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. (1 hr. lecture)

CJE1003
Career Exploration in Criminal Justice **1-3 variable 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)

CJE2300
Police Organization and Administration **3 credits**
The principles of organization and management, concepts of organizational behavior, the administration of staff activities such as personnel, training, planning and budgeting. (3 hr. lecture)

CJE2302
Management of Police Functions **1-3 variable 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)

CJE2400
Criminal Justice and the Community **1-3 variable 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)

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 and 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)

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 and seizure and interrogation will be covered. In addition, evidentiary principles will be taught emphasizing those provisions applicable to law enforcement. (3 hr. lecture)

CJT1330
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 School of Justice students only. (1 hr. lecture; 4 hr. lab)

CJT1362
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)

CJT1800
Introduction to Security and Loss Prevention **3 credits**
An introduction to security and loss prevention which includes a historical, philosophical and legal framework. An overview of environmental, political, financial and legal ramifications of security. (3 hr. lecture)

CJT2100
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)

CJT2230
Chemical Test for Intoxication **3 credits**
The history, purpose, methods, equipment and status of chemical tests for intoxication. Physiology of alcohol is explained, and arrest and courtroom procedures are outlined. Special fee. (3 hr. lecture)

Dance

DAA1100
Modern Dance 1 **2-3 variable 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 variable 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 variable 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 variable 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 variable 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 variable 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 variable 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 variable 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 Majors only. (1 hr. lecture; 2-4 hr. lab)

DAA1290
Ballet For the Theater 1 **1-3 variable credits**
Music Theater 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 variable 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.)

DAA1311
Social Folk and Square Dance **1 credit**
Designed to provide experiences in learning the popular and traditional dances of the Americas and International Countries. (2 hr. lab)

DAA1330
Afro-Caribbean Dance **1-3 variable credits**
Designed for those students wishing to learn the dance skills and techniques of dance from Africa and the Caribbean. Special fee. (1 hr. lecture; 2-4 hr. lab)

DAA1420
Repertory 1 **2-3 variable 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)

DAA1500
Jazz Dance 1 **2-3 variable credits**
Designed to provide experiences in the styles of theatrical jazz dance at a primary level. Special fee. (1 hr. lecture; 2-4 hr. lab)

DAA1501
Intermediate Jazz Dance **2-3 variable credits**
Continuation of development of technique and understanding of Jazz Dance. Prerequisite: DAA 1500 or permission of the department. (1 hr. lecture; 2-4 hr. lab)

DAA1504
Jazz Dance 1 **2-3 variable 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 variable 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 variable credits**
Designed for students interested in learning the skills and techniques of tap dancing. (1 hr. lecture; 2-4 hr. lab)

DAA2102
Modern Dance 2 **2-3 variable 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 1101 or permission of the department. (1 hr. lecture; 2-4 hr. lab)

DAA2103
Advanced Modern Dance 2 **2-3 variable 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 variable 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 principals 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 variable 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 variable credits**
The continued development of various aspects of ballet technique and terminology. Prerequisite: DAA 1201 or permission of the department. (1 hr. lecture; 2-4 hr. lab)

DAA2203
Advanced Ballet Dance **2-3 variable credits**
The continued development of various aspects of ballet technique and terminology. Prerequisite: DAA 2202 or permission of the department. May be repeated for credit. (1 hr. lecture; 2-4 hr. lab)

DAA2206
Ballet 2 **2-3 variable 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 variable 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 variable 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)

DAA2361
Skills and Practice in Social, Folk and Square Dance **2 credits**
Designed to provide experiences to develop performing and teaching skills in the popular and traditional dances of the Americas and international countries. (1 hr. lecture; 2 hr. lab)

DAA2502
Jazz Dance 2 **2-3 variable credits**
Designed to provide experiences in the styles of jazz dance including the utilization of fundamental concepts of alignment, balance and coordination in relation to the historical development of American Jazz music. Prerequisites: DAA 1104, 1105, 1204 and 1205 or permission of the department. (1 hr. lecture; 2-4 hr. lab)

DAA2503
Advanced Jazz Dance **2-3 variable credits**
Further development of the concepts described in Jazz Dance 1. Jazz Dance 2 includes but is not limited to work in the style 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 variable 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 variable credits**
Music theater 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 variable 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 variable 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 variable 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 variable credits**
A continuation of DAA 2680. Prerequisite: DAA 2680. (1 hr. lecture; 2-4 hr. lab)

DAA2930
Jazz Dance Techniques for the Theatre **1-3 variable credits**
An advanced level, sophisticated course in the latest techniques required of jazz dancers. A high degree of bodily flexibility and the capacity for performing highly stylized jazz movements with professional polish are expected of each student. Those without previous training in jazz dance may be admitted, but only if they display expertise in other forms of dance. Prerequisite: Permission of the department. May be repeated for credit. (1-3 hr. lecture)

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)

DAN1580
Practicum in Dance Production 2 **1 credit**
Further emphasis is on the production aspects of dance. A log of dance activity and concerns culminating in studio performance will be required. Prerequisite: DAN 1500 or permission of the department. (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. (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 and Materials of Music for Dance 1 **2-3 variable 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 and Materials of Music for Dance 2 **2-3 variable 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)

DEH1130
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)

DEH1130L
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: DEH1130. Laboratory fee. (2 hr. lab)

DEH1230L
Advanced Radiographic and Clinical Assessment Techniques **1 credit**
A laboratory course introducing advanced digital radiographic techniques, the intra-oral camera, periodontal probing and dental charting software and other clinical assessment tools. These skills will enable students to provide comprehensive patient treatment and enhance their ability to interpret intra-oral conditions. (3 hr. clinic)

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)

DEH1800
Dental Hygiene 1 **2 credits**
Theory of the removal of hard and soft deposits from the teeth, and other related post-operative 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. 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 the student's knowledge and skills through clinical experiences more difficult than those experienced in DEH 1802L. Prerequisite: DEH 1802L. 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)

DEH1940L
Dental Hygiene 1 Optional Learning Support **1 credit**
DEH 1940L runs concurrently with DEH 1800L and is designed to enhance students' 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)

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. Co-requsite: DEH 2603. Prerequisite: DEH 1400. 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)

DEH2933L
Dental Hygiene Records Laboratory **2 credits**
Introduction to computer theory and application with emphasis on Dental Hygiene Record Management. Prerequisite: Acceptance into Dental Hygiene Program. Laboratory fee. (4 hr. lab)

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 1220L. (2 hr. lecture)

DES1200L
Dental Radiology Laboratory **2 credits**
Laboratory for DES 1200. Prerequisite: Acceptance into the Dental Hygiene Program; corequisite: DES 1200. 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)

DES2130
Dental Materials **2 credits**
Physical properties of dental materials and their use in the oral cavity. Prerequisite: DEH 2806L, DEH 1130; corequisite: DES 2130L. (2 hr. lecture)

DES2130L
Dental Materials
Laboratory **1 credit**
Laboratory for DES 2130. Corequisite: DES 2130. Laboratory fee. (2 hr. lab)

Dental Laboratory Technology

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)

Dietetics

DIE1350
Dietary Clinical Practice 1 **6 credits**
Observation and participation in various community agencies and institutions. Activities focus around interviewing and nutrition education techniques. Corequisite: DIE 1401. (1 hr. lecture; 10 hr. lab)

DIE1401
Nutrition Education and Interviewing **3 credits**
The varying educational methods which will have an impact on the food habits of different cultural groups. Students acquire a working knowledge of interviewing procedures. Corequisite: DIE 1350. (3 hr. lecture)

DIE2100
Dietary Department Operations **3 credits**
The organization and management of food service in health care facilities. Examines the role of the dietary department in relation to other departments of the institution. Trends in methods of food service in hospitals and extended-care facilities are studied. (3 hr. lecture)

DIE2124
Dietary Management Operations **4 credits**
The management functions and skills of the dietary departments in health care facilities are studied. Examines effective leadership communications, human resources management, planning and decision-making, organization and time management. Focus on clinical nutrition management. (4 hr. lecture)

DIE2211
Introduction to Diet Therapy **3 credits**
Introduction to basic physiological changes in given disease states and describing the general principles of dietary management. Prerequisites: HUN 1201, DIE 1401, 1350. (3 hr. lecture)

DIE2221
Application of Diet in Disease **3 credits**
Focus on the specific procedures involved with the implementation of nutritional care for the patient in health care institutions. Application of principles of patient interviewing and diet instruction. Prerequisites: DIE 1350, 1401, HUN 1201. (3 hr. lecture)

DIE2500
Dietetic Seminar **2 credits**
Discussion of the role of the Dietetic Technician in health and social service fields. Guest speakers from the agencies are invited to discuss jobs and careers. Prerequisites: DIE 1350, 2533 and completion of 45 hours in program. (2 hr. lecture)

DIE2533
Dietary Clinical Practice 2 **6 credits**
Supervised field experience in nutritional care. Emphasis on planning regular and modified diets which are adapted to individual patient's needs. Prerequisite: DIE 1350. (1 hr. lecture; 10 hr. lab)

DIE2534
Dietary Clinical Practice 3 **6 credits**
Supervised field experiences in nutritional care. Emphasis on implementation of nutrition care plans and diet instructions. Prerequisites: DIE 1350, 1401, 2211, 2533, HUN 1201. (1 hr. lecture; 10 hr. lab)

ESL for Academic Purposes

EAP1101
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. (3 hr. lecture)

EAP1101L
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 1101. (2 hr. lab)

EAP1121
Reading Level 1 **3 credits**
Students develop the ability to comprehend limited written materials. (3 hr. lecture)

EAP1141
Writing Level 1 **3 credits**
Students develop the ability to write appropriate phrases and short sentences on personal topics. (3 hr. lecture)

EAP1141L
Writing Level 1 Laboratory **1-3 variable 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 1141. (2-6 hr. lab)

EAP1161
Grammar Level 1 **3 credits**
Students develop the ability to understand and use basic, high frequency grammatical structures. (3 hr. lecture)

EAP1201
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. (3 hr. lecture)

EAP1201L
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 EAP1201. (2 hr. lab)

EAP1221
Reading Level 2 **3 credits**
Students develop the ability to comprehend limited written materials. (3 hr. lecture)

EAP1241
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. (3 hr. lecture)

EAP1241L
Writing Level 2 Laboratory **1-3 variable 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 1141. (2 hr. lab)

EAP1261
Grammar Level 2 **3 credits**
Students continue to develop control of basic grammatical structures and statement/question patterns. (3 hr. lecture).

EAP1301
Speech/Listening 3 **3 credits**
Students develop speaking and listening skills necessary for participating in classroom discussions with an emphasis on clarification through re-wording and asking questions. (3 hr. lecture)

EAP1301L
Speech/Listening 3 Laboratory **1 credit**
Students practice speaking and listening skills necessary for participating in classroom discussions with an emphasis on clarification through re-wording and asking questions. (2 hr. lab.)

EAP1321
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. (3 hr. lecture)

EAP1341
Writing Level 3 **3 credits**
Students develop the ability to write basic, structured academic paragraphs on familiar topics and execute other academic writing tasks. (3 hr. lecture)

EAP1341L
Writing Level 3
Laboratory **1-3 variable credits**
Students develop the ability to write basic, structured academic paragraphs on familiar topics and execute other academic writing tasks. (1-3 hr. lab)

EAP1361
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. (3 hr. lecture)

EAP1401
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)

EAP1401L
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. (2 hr. lab)

EAP1421
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. (3 hr. lecture)

EAP1441
Writing Level 4 **3 credits**
Students develop the ability to write more sophisticated, structured academic paragraphs in various rhetorical modes and execute other academic writing tasks. (3 hr. lecture)

EAP1441L
Writing Level 4
Laboratory **1-3 variable credits**
Students continue to develop more sophisticated writing, structured academic paragraphs in various rhetorical modes and execute other academic writing tasks. (1-3 hr. lab)

EAP1461
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. (3 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 discssion 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 variable 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 variable credits**
Students 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)

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 Co-operative Education Office to obtain registration approval. (3 hr. lecture)

ECO2000
Introduction to Economics **3 credits**
Survey of basic economic principles. Scarcity, choice, entrepreneurship, markets, prices, monetary and fiscal policies, employment, inflation, international trade and socio-economic concerns. This course is designed for non-business majors. (3 hr. lecture)

ECO2013
Principles of
Economics (Macro) **3 credits**
An overview of basic economic concepts and institutions. 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. (3 hr. lecture)

ECO2023
Principles of
Economics (Micro) **3 credits**
Theory of markets, price mechanism, production, distribution and resource allocation; application of marginal analysis and equilibrium theory to the price and output decisions of the individual firm in pure competition, monopolistic competition, oligopoly and monopoly; agriculture; labor, rent interest and profits theory; international trade; the economics of change. (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)

ECO2072
Economics Institute
Elementary Education 2 **3 credits**
This course is designed for Elementary Teachers. It provides coverage of major macro-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 Students 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)

ECO2073
Economics Institute
Secondary Education 1 **3 credits**
Intended Students: Continuing Education (Secondary Teachers) Intro/Advanced: Introductory Major Topics: An examination of the latest ideas and developments in the study of economics education for secondary school teachers. (3 hr. lecture)

ECO2074
Economics Institute
Secondary Education 2 **3 credits**
This course is designed for Secondary Teachers. It provides coverage of major macro-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 secondary curriculum. The latest economic education materials will be utilized. (3 hr. lecture)

ECO2220
Money and Banking **3 credits**
This course examines the monetary system of the United States. It is concerned with the nature, history and functioning of money-creating depository institutions, including techniques developed for their control and the inter-relations between monetary, price and employment theories. Specifically, the course addresses money and financial distributions, commercial banking, money and macro-economic theory and monetary and fiscal policies. Prerequisite: FIN 2000. (3 hr. lecture)

ECO2301
History of Economics Ideas
and Their Consequences **3 credits**
An interdisciplinary study with major elements of economics, philosophy, history, sociology, anthropology and political science that begins in the agricultural landscape of the 1700s and brings one forward into the age of the corporate giant and the nuclear warfare of modern industrial society. (3 hr. lecture)

ECO2949
Co-op Work
Experience 2: ECO **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. 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 Education **3 credits**
The principles of education with emphasis on the social, historical and philosophical foundations of public education. This course considers conflicting views, their bases and applications. It meets teacher certification requirements in the area of sociological foundation. (3 hr. lecture)

EDF1949
Co-op Work
Experience 1: EDF **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)

EDF2060
American Education
in Transition **3 credits**
The major areas of change and potential change are reviewed with emphasis on the present and future. Topics include finance, management, public attitudes, instruction, curriculum and the role of the teacher. The course is designed to provide teachers and prospective teachers with insight concerning the direction American education is currently taking. Prerequisite: Sophomore standing. (3 hr. lecture)

EDF2080
Comparative European
Education **3 credits**
A study of the social, historical and cultural factors which have made for the differential development of educational institutions and organizations in Europe. Emphasis on the French education system, with attention to other European countries and the United States. Visits to local French educational institutions. Given in English. Level 1. Offered through Overseas Study Program. (3 hr. lecture)

EDF2949
Co-op Work
Experience 2: EDF **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)

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, Evaluation,
and Assessment in Education **3 credits**
This course is designed to familiarize the student with principles of traditional and alternative assessment strategies, including behaviorist, constructivist and transpersonal measures. Topics include ensuring equity with authentic assessments, rethinking assessment and its role in supporting educational reform, integrating assessment and instruction in ways that support learning, reporting assessment results and assessing the learner's progress appropriately. In addition, the course will highlight acquiring an understanding of the content measured by state achievement tests, reading and interpreting data and using data to improve student achievement. Finally, the course will enable the match of instructional strategies to the learner's cognitive, social, linguistic, emotional and physical needs. Prerequisite: Probability and Statistics . (3 hr. lecture)

EDG1700
Introduction to
Multicultural Education **3 credits**
Introduction to Multicultural education is an educational foundations course drawn heavily from social sciences to introduce important multicultural concepts that serve the dual function of providing motivation and content. (3 hr. lecture)

EDG2701
Diverse Populations **3 credits**
This course assesses the breadth and complexity of America's diverse student population. The course focuses on both theoretical and practical knowledge. As part of this course, the students will complete the state-mandated 15 hour diverse population field experience component. (3 hr. lecture)

EDG2943
Educational Service
Field Work **1-3 variable 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)

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, linquistic, 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 3214 (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, with emphasis on the writing process, and strategies to make the curriculum accessible to diverse students including those with various disabilities and LEP students. Practical experience in curriculum, instruction and assessment will be provided. Addresses Sunshine State Standards, Educator Accomplished Practices, and pedagogy pertinent to specific disciplines required for certification, and the Council for Exceptional Children's Content Standards for all beginning Special Education Teachers. Minimum 20 hours structured field experience required. (3 hr. lecture)

EDG4377
Integrated Mathematics
and Science **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 3010. (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 and 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 40 hours per semester. Prerequisite: Must earn a grade of "C" or batter. (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 arrangement, scheduling, classroom management and lesson planning. (The modules on antibias 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. This 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 satisfy H.R.S. requirements as mandated by the State of Florida.) This course 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)

EEC1500
Infant and
Toddler Development **3 credits**
Infant and Toddler Development is a course designed for Early Childhood professionals who want to expand their knowledge of the very young child. The course will focus on the physical, emotional, cognitive and social growth of the child from birth to age three. It will explore the characteristics of quality child care environments and the qualities appropriate for adults who care for infants/ toddlers in group settings. (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)

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)

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)

EEC2524
Programming and
Management for
Early Childhood **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 and Financial
Issues in Child Care **3 credits**
This couse 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 Adminstrator Advanced Level Credential. (3 hr. lecture)

EEC2935
Special Topics in Early
Childhood Administration **3 credits**
Special topics in Early Childhood Administration is a course designed for administrators of programs for young children. It provides current information about child care management and establishes a meaningful support group where administrators can discuss their specific problems under the guidance of an early childhood professional.The course explores such topics as effective supervision, behavior management regulations, in-service teacher training, conferencing with staff and parents, record keeping, legal concerns, financial concerns and community resources. (3 hr. lecture)

EEX2000
Introduction to
Special Education **3 credits**
A survey designed to familiarize prospective teacher aides, assistants, parents and teachers with the educational, social, physical, and physiological bases of children's exceptional needs.These include: giftedness, physical limitations, visual and hearing impairments, mental retardation and communication disorders. (3 hr. lecture)

EME2040
Introduction to
Educational Technology **3 credits**
This course is an applications and theory course designed to familiarize students with various technologies and their uses in education. Prerequisite: EDF 1005. (3 hr. lecture)

Education Foundations and Policy Studies

EEX3010
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.)

EEX3101
Survey of Normal/Abnormal
Language and Speech **1 credit**
This course is a survey of normal language and speech development, an overview of major communication disorders and supportive strategies for classroom teachers. (1 hr. lecture)

EEX4221
Educational Assessment
of Exceptional Students
with Disabilities K-5 **3 credits**
This course is a study of the theory and practice of informal and formal assessment of behavior and/or learning problems. Practice with evaluation instruments and curriculum based assessment strategies are key components of the course. Use of assessment information in designing academic K-12 curriculum plans is taught. (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 3010. (3 hr. lecture)

EEX4265
Curriculum and Instructional 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: EDF 3214, EEX 3010. (3 hr. lecture)

EEX4601
Effective Behavorial Practices and Interventions **3 credits**
This couse 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 3214, EEX 3010. (3 hr. lecture)

EEX4940
Student Teaching/ Exceptional Student Internship and Seminar **12 credits**
This course requires a pre-service teacher to demonstrate professional competencies during one semester of full-day internship in a public school. Prerequisites: EEX 4267, 4268. (3 hr. lecture; 9 hr. lab)

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 schoole students. The course addresses specific Sunshine State Standards, subject matter competencies, and pedagogy pertinent to the discipline and required for certification. Prerequisites: MAC 2312 or department permission. (3 hr. lecture)

MAE4330
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 the 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)

MAE4642
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 3214 and MAC 2312 or department permission. (3 hr. lecture)

MAE4945
Student Teaching in Secondary Mathematics **12 credits**
This course requires a pre-service teacher to demonstrate professional competiences during one semester of full-day internship in a public school. Prerequisites: MAE 3320, 4330, 4642. (3 hr. lecture; 9 hr. lab)

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)

SCE4362
Methods of Teaching Science 1 **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. The student will develop a theoretical basis for science education, 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 of field experience is required to successfully complete this course. Prerequisites: EDF 3214. (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 of field experience is required to successfully complete this course. Prerequisite: SCE 4362. (3 hr. lecture)

SCE4945
Student Teaching/Student Internship-Science **12 credits**
This course requires a pre-service teacher to demonstrate professional competencies during one semester of full-day internship in a public school. Prerequisites: SCE 4362, 4363. (3 hr. lecture; 9 hr. lab)

Education: Hard of Hearing and Deaf

EHD1400
Interpreting Ethics and Professionalism **3 credits**
This 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: SPA 1613C, 1630. (3 hr. lecture)

EHD1401
Voice to Sign Interpreting **3 credits**
In-depth discussion and application of techniques and principles for interpreting situation in educational, social service, free-lance interpreting and the business aspects of interpreting. Prerequisites: EHD 1400, SPA 2614C. (3 hr. lecture)

EHD1402
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: EHD 1401, SPA 2382C. A.S. degree credit only. (3 hr. lecture)

EHD1408
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. (3 hr. lecture)

EHD1409
Interpreting: Special
Settings & Populations **3 credits**
This 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: EHD 1400, SPA 2382C. (3 hr. lecture)

EHD1941
Interpreting Internship **5 credits**
This 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 minimun 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 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
Language and Cognition **3 credits**
This module provides substantive knowledge of language structure and function and cognition of phonemic awareness, phonics, fluency, vocabulary and comprehension. Further, 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 governing 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 relate them to their observations of students as well as student behaviors and interactions in schools. Corequisite: EPI 0030. (1 hr. lecture)

Emergency Medical Services

EMS1059
Responder in 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
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. Crequisites: 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)

EMS1731
Cardiopulmonary Resuscitation
Instructor Certification **1 credit**
Designed to prepare CPR certified rescuers to become CPR instructors. The course includes background material and instructional methodologies. Prerequisite: Current American Heart Association Cardiopulmonary Resuscitation (CPR) Basic Rescuer's Certificate. A.S. degree credit only. (1 hr. lecture)

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)

EMS2395
Emergency Medical
Services Seminar **1 credit**
Current topics and trends for the Emergency Medical Services (EMS) provider. Support materials requested. A.S. degree credit only. (1 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, and trauma, obstetric, gynecological, pediatric 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, prehospital 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, and trauma, obstetric, gynecological, pediatric and psychiatric emergencies. Students will be expected to master the techniques of patient assessment, intravenous techniques, endotracheal intubation and advanced life support. C-orequisites: 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 student obtains increasing patient care responsibilities as a working member of the EMS team under the direct supervision of a designated preceptor. Prerequisites: EMS 2601, 2601L, 2602, 2602L, 2664, 2665. 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: ENS 2602, 2602L. A.S. degree credit only. (9 hr. lab)

Engineering – General

EEL2111C
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)

EGN2033
Civilization and
Engineering 1 **3 credits**
A global historical study on the development of engineering-related technology and its impact on civilization from antiquity to the pre-industrial revolution period. From stone tools to the steam engine, 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)

EGN2037
Civilization and
Engineering 2 **3 credits**
A historical study of 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 explore 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, e-mail, internet). Prerequisite: MAC 1105. (3 hr. lecture)

EGS1111C
Engineering Graphics **5 credits**
Drafting theory, lettering, geometric construction, orthographic and pictorial sketching and drawing are included together with descriptive geometry. Required for all professional engineering students. Prerequisite: ETD 1100 or one year of high school drawing. Laboratory fee. (3 hr. lecture; 4 hr. lab)

EGS1220C
Basic Computer Language **2 credits**
A study of the computer language called BASIC. Students are required to write instructions and obtain solutions to problems often encountered in engineering construction and land surveying. The method is "interactive" and "conservation"-step with the generation of mini and microcomputers and larger programmable calculators. (1 hr. lecture; 2 hr. lab)

EGS1949
Co-op Work Experience 1: EGS **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)

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**
Basic principles of statics covering resultants, equilibrium, trusses, frames, friction, centroids and moments of inertia with vector notation and calculus. Prerequisites: MAC 2311, PHY 2048 or equivalent. (3 hr. lecture; 2 hr. lab)

Engineering Technology– Civil

ETC2201
Design and Inspection Engineer Seminar 1 **3 credits**
Organizations, policies, procedures and practices relating to the engineering and construction of highways, buildings, utilities, and other facilities. Utilization of Standard Operating Procedure for design, layout, inspection and testing are introduced. (3 hr. lecture)

ETC2207
Computing and Estimating **3 credits**
Approximate and exact methods of computing and estimating quantities from plans: arriving at unit prices, lump sum costs, and estimated total costs from quantities; and making preliminary and final estimates. (3 hr. lecture)

ETC2210C
Geotechnics and Soils **4 credits**
The study of engineering geology and soil mechanics as they relate to engineering and construction. Students will perform laboratory and field work in soil sampling, analysis and U.S. Standards specification for geologic materials. Special fee. (3 hr. lecture; 2 hr. lab)

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)

ETC2521
Applied Hydraulics and Drainage Structure **3 credits**
The application of basic hydraulics principles to engineering problems in the collection, distribution and disposal of water and wastes. Laboratory work involves solving realistic problems. Prerequisites: ETG 1513C, PHY 2053. Special fee. (2 hr. lecture; 2 hr. lab)

Engineering Technology– Drafting

ETD1200
Technical Drawing 1 **4 credits**
Introduces 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)

ETD1330
Computer-Aided Drawing and 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 1200. Laboratory fee. (2 hr. lecture; 4 hr. lab)

ETD1801
Technical Illustration **4 credits**
Mechanical product illustration techniques emphasizing ink work and the 35 degree 16' isometric drafting method, paste-up techniques, methods of representing various mechanical devices, exploded and shading techniques. Laboratory fee. (2 hr. lecture; 4 hr lab)

ETD2215
Technical Drawing 2 **5 credits**
Advanced drafting techniques in detailing, piping, welding, select structural members and U.S. drafting standards. Use of technical manual to support detailed drawings produced in a laboratory environment. Introduction to 2D CADD (Computer-Aided Drafting and Design) to produce industry standard drawings. Prerequisite: EGS 1111C, ETD 1200. Laboratory fee. (3 hr. lecture; 4 hr. lab)

ETD2350
Computer Graphics **3 credits**
The continuation of ETD 1330 in which the student executes CADD solid models that create realistic images with genuine-looking surfaces, textures, lights and shading. Animation is also introduced. Prerequisite: ETD 1330. Laboratory fee. (2 hr. lecture; 2 hr. lab)

ETD2400
Tool and Machine Design Drafting **5 credits**
Students will cover design drafting for construction of tools for mass production on automated lathes, drill presses, screw machines, milling machines, broaches and cutting mechanisms and jig and fixture presentation utilizing 2D and 3D CADD methods. Commercially designed tool elements are introduced to emphasize U.S. Standards (ANSI) for working drawings. Detailing in sub-assemblies and complex parts with welded and fastened construction is covered. Prerequisites: EGS 1111C, ETD 1200. Laboratory fee. (3 hr. lecture; 4 hr. lab)

Engineering Technology– Electrical

CET1171
Micro-Computer Service and Maintenance 1 **3 credits**
Introduction to the service and maintenance techniques for personal computers. Intended to address the non-technical student who has a need to know more about personal computers. Topics include faults in the CPU, disk drives, cables, monitors and software. Laboratory fee. A.S. degree credit only. (3 hr. lecture)

CET1172C
Micro-Computer Service and Maintenance 2 **3 credits**
A continuation of micro-computer service and maintenance: Addresses hardware faults, board changing, system configuration, memory expansion and upgrading. Software diagnostics is a major part of this course and changing components and parts will be addressed. Prerequisite: CET 1171. Laboratory fee. A.S. degree credit only. (3 hr. lecture)

CET1173C
Micro-Computer Networking and Maintenance 1 **3 credits**
This is a hands-on course designed to provide the student with a solid conceptual understanding and practical experience of installing, maintaining and repairing microcomputer networks. Emphasis will be on peer-to-peer networks. Students will configure multiple types of network cabling, hubs, network interface cards, and workstations, and network operating systems software and hardware tools will be used and evaluated in class. Preventive maintenance, upgrades, system diagnostics, configuration, power protection, and the management, sharing and optimization of work station resources such as drives, printers and output devices will be examined in detail. (2 hr. lecture; 2 hr. lab)

CET2114C
Digital Computer Circuit Analysis 1 **4 credits**
Applies electronic principles to digital computer circuits and systems. Prerequisites: EET 1141C, 1142C. Laboratory fee. A.S. degree credit only. (2 hr. lecture; 4 hr. lab)

CET2123C
Microprocessors **4 credits**
Applies digital principles to the understanding of microprocessor parameters and characteristics (addressing range and models, instruction set, architecture, input/output, interrupts, and programming). Experimentation on various microprocessors and peripheral circuits. Prerequisites: CET 2114C, MTB 1321. Laboratory fee. A.S. credit only. (2 hr. lecture; 4 hr. lab)

CET2142C
Advanced Digital Circuits **4 credits**
Extends the application of sequential and combinational logic circuits to computer circuits and other digital applications. The student studies a microcomputer and elements, learning to program, operate and interface with it. Prerequisites: CET 2114C; corequisite: EET 1141C. Laboratory fee. A.S. degree credit only. (2 hr. lecture; 4 hr. lab)

CET2176C
Micro-Computer Service and Maintenance 3 **3 credits**
This is an advanced course that will address the signal flow, block diagram and discrete component aspects of the desk top microcomputer. Detailed analysis of the CPU, graphic, both monochrome and color boards, controller, serial and parallel parts, disk drivers and monitors will be addressed. Laboratory fee. A.S. degree credit only. (3 hr. lecture)

CET2205C
Pulse and Digital Circuits **4 credits**
The theory and verification of the non-linearities of tubes and transistors and the use of these non-linearities for non-sinusoidal wave generation, shaping, and switching. Pr-erequisites: EET 1141C, 2101C. Laboratory fee. A.S. degree credit only. (2 hr. lecture; 4 hr. lab)

CET2930
A+ Certification Examination Review **3 credits**
A comprehensive course to prepare advanced students to pass the A+ certification examination. Coverage includes micro-computer hardware, the DOS and Windows operating systems, industry standards and practices and professional competency and conduct; corequisite: CET 2176C. (3 hr. lecture)

EET1015C
Direct Current Circuits **4 credits**
Basic principles of electricity and the applications of fundamental laws to direct current networks. A study of electrical components, magnetism, inductance, capacitance and elementary network analysis. Utilization of modern laboratory equipment for experimental verification and application of basic principles. Pre-/Corequisite: MTB 1321. Laboratory fee. (2 hr. lecture; 4 hr. lab)

EET1025C
Alternating Current Circuits **4 credits**
Fundamental principles of alternating current: sinusoidal and non-sinusoidal. A study of impedance, phase shift, coupling networks, transformers, and series and parallel resonance using standard vector notation. Utilization of modern laboratory equipment for experimental verification and application of theory. Prerequisite: EET 1015C; corequisite: MTB 1322. 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 resitive 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
Semiconductor Fundamentals **4 credits**
The fundamental theory of transistors and other solid-state devices and its verification. Amplifiers, oscillators and other applications using a sinusoidal wave are analyzed. Prerequisite: EET 1025C. Laboratory fee. (2 hr. lecture; 4 hr. lab)

EET1142C
Transistor Circuits **4 credits**
Transistors and other solid-state devices. Amplifiers, oscillators, pulse and switching circuits and other applications using both sinusoidal and non-sinusoidal waves are analyzed. Prerequisites: EET 1037C, 1141C, 2101C. Laboratory fee. (2 hr. lecture; 4 hr. lab)

EET2101C
Electronics Devices **4 credits**
Construction, characteristics and applications of the various electron tube and semiconductor devices including newer solid-state devices, and some of the important industrial and commercial systems in which they are employed. Prerequisite: EET 1141C. Laboratory fee. (2 hr. lecture; 4 hr. lab)

EET2305
License Preparation **3 credits**
Prepares technicians for the first or second class radio-telephone operators' license examination as administered by the Federal Communications Comission. Students who possess a valid FCC first or second class license may arrange for Credit-by-Departamental Examination. Prerequisites: EET 1015C, 1025C, 1037C, 1141C, 1142C; corequisite: EET 2101C. (3 hr. lecture)

EET2305C
Communications and Federal Communications Commission **4 credits**
An analysis of the principles of radio wave transmission and reception. AM and FM transmitters, receivers, and single side-band, television and digital data transmission lines, wave propagation antennas, and microwaves are investigated. FCC licenses, laws, operating practices and broadcast station rules are reviewed. Corequisite: EET 1201C. (2 hr. lecture; 4 hr. lab)

EET2351
Fundamentals of Digital and Data Communications **4 credits**
This course is designed to give the electronics student a theoretical and practical background in the basic concepts and applications of Digital and Data Communications. Examples of topics covered are: A/D and D/A conversions; data communications codes and standards; modulation, transmission impairment, the telephone system, MODEMS, multiplexers, electrical interface standards including RS-232-C. There will be laboratory applications on most topics. Prerequisites: CET 2114C, EET 1025C. Laboratory fee. (2 hr. lecture; 4 hr. lab)

EET2949
Co-op Work Experience 2: EET **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)

EST2122C
Electrical Machinery/Industrial Control Systems **4 credits**
Analysis of different types of systems and associated electronic circuits encountered in the field of electric machinery and industrial controls. The concepts of open and closed loop systems, transducers, transformers, transmission and distribution systems will be presented. Analysis of systems and devices will include the calculation to determine parameters to accurately predict operation. Prerequisite: EET 1025C. Laboratory fee. (2 hr. lecture; 4 hr. lab)

EST2224C
Fiber Optic Communications **2 credits**
Introduces fiber optic technology and theory and contrasts fiber optic with other transmission media. Covers installation, troubleshooting, and termination of cable; operation of fiber and copper tools. Includes selection of appropriate cable for different environmental and telemetric conditions; use of single and multi-mode cable. Contrasts fiber cable with copper cable; contrasts the channel capacity of a fiber cable with that of copper cable; determines when each is appropriate. Transmission theory and wave guide, light refraction inside a fiber optic cable, multi-path limits to cable length within a fiber cable, frequency limits and harmonic modes are esamined. Special fee. (1 hr. lecture; 2 hr. lab)

EST2436C
Biomedical Instrumentation **3 credits**
Students will acquire proficiency in biomedical equipment maintenance through classroom and laboratory environment and will gain familiarity with and learn to evaluate, calibrate, test and perform basic troubleshooting on various types of biomedical equipment. Prerequisites: EET1025C, CHM1033, HIM 2472. Laboratory fee. (2 hr. lecture; 2 hr. lab)

EST2438C
Biomedical Instrumentation 2 **3 credits**
This course is intended to inform students about the theory and operation of instrumentation employed in the medical imaging field such as x-ray machines, CT scanners, Ultrasound, Nuclear Medicine and MRI. Prerequisite: EST 2436C. Laboratory fee. (2 hr. lecture; 2 hr. lab)

Engineering Technology–Environmental

EVS2005
Water and Waste Systems **3 credits**
The design, construction, operation, control and management of water collection, purification and distribution systems: waste collection, disposal systems and treatment plants. Prerequisites: ETC 2521, EVS 2006. A.S. degree credit only. (1 hr. lecture; 4 hr. lab)

EVS2006
Treatment Operations Processes **3 credits**
The knowledge and skills to understand and perform the routine physical, chemical and biological operations for control of processes in water and waste water treatment and other pollution control. Prerequisites: ETC 2521, ETG 1513C. A.S. degree credit only. (2 hr. lecture; 2 hr. lab)

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)

ETM1710C
Air Conditioning Load Analysis **3 credits**
Detailed study and practical application of cooling and heating load calculations and analysis for residential and commercial buildings. Energy conservation techniques in building design and operation are also covered. Prerequisite: ETM 1700. Laboratory fee. (2 hr. lecture; 2 hr. lab)

ETM1720C
Air Conditioning Equipment **3 credits**
Analysis of the refrigerant cycle and the machinery and equipment utilized for air conditioning. Function, selection and operation of components of the system are covered. Laboratory fee. Prerequisite: ETM 1700.(2 hr. lecture; 2 hr. lab)

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 and 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)

ETM2760C
Heating and Refrigeration **3 credits**
Study of environmental control heating system design, function, application and industrial refrigeration systems design for food preservation and processing are covered. Laboratory includes design projects in these areas. Prerequisite: ETM 1720C. 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

ETG2502
Statics **3 credits**
The application of dead and live loads to rigid bodies at rest, including the force and moment of laws of equilibrium, determination of the direction and intensity of reactions, moments and stress in the design of engineering and architectural structures. Prerequisite: MAC 1105. (3 hr. lecture)

English Language and Literature

AML2010
American Literature **3 credits**
American Literature from Colonial times to the Civil War. Prerequisites: ENC 1101, 1102. (3 hr. lecture)

AML2020
American Literature **3 credits**
American literature from the Civil War to the present. Prerequisites: ENC 1101, 1102 (3 hr. lecture)

AML2601
African-American Literature 1 **3 credits**
A study of African-American literature with emphasis on poetry, fiction, biography and drama from 1746 to the Harlem Renaissance of the 1920s.. Prerequisite: ENC 1101. (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 1960s, including prose, poetry, drama and biography as well as films and some T.V. 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)

CRW2700
Reading and Writing Satire **3 credits**
Focuses on learning techniques of effective satire by reading well-known satirical works, ranging from ancient to modern times, and applying these techniques in students' writing, which may be in the form of essay, poem or short play. (3 hr. lecture)

ENC1101
English Composition 1 **3 credits**
This is the first required general core course in college-level writing. Students will compose essays and other works using various methods of development. This course fulfills 8,000 words of the Gordon Rule requirement. Note: This course must be completed with a grade of "C" or better. 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 ENC 0021 with a grade of "S". Special fee. (3 hr. lecture)

ENC1102
English Composition 2 **3 credits**
This is a required general education course in college-level writing. Observing 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 8,000 words of the Gordon Rule requirement. Note: This course must be completed with a grade of "C" or better. Prerequisite: ENC 1101 or equivalent with a grade of "C" or better. Special fee. (3 hr. lecture)

ENC1112
Essential Elements of English Grammar **1-3 variable 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 ENC 0021 with a grade of "S". (1-3 hr. lecture)

ENC1113
Writing Skills Review **1-3 variable credits**
This course is designed for students whose writing and/or CLAST essay test scores demonstrate a need for continued instructional support. It also reinforces the principles of composition. 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 ENC 0021 with a grade of "S". (1-3 hr. lecture)

ENC1210
Technical Report Writing **3 credits**
Intended primarily for technical programs, emphasizing research techniques, graphic presentation and technical report writing. (3 hr. lecture)

ENC2200
Advanced Exposition for Business **3 credits**
Study and practice of effective writing techniques for business, including collaborative skills and effective use of graphics. Prerequisites: ENC 1101 and ENC 1102. (3 hr. lecture)

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. Pre-quisites: ENC1101, 1102 or equivalent with a grade of "C" or better. (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. (3 hr. lecture)

ENG2949
Co-op Work Experience 2: ENG **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)

ENL2012
English Literature **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 **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)

LIT1000
Introduction to Literature 3 **3 credits**
A variety of approaches to the study of literature. Prerequisite: ENC 1101. (3 hr. lecture)

LIT2020
The Short Story **3 credits**
The development of the short story as a literary form. (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
A Survey of World Literature **3 credits**
The masterpieces of world literature. Prerequisites: ENC 1101, 1102 or equivalent. (3 hr. lecture)

LIT2120
A Survey of World Literature **3 credits**
LIT 2120 explores masterpieces of world literature from the mid-renaissance to the present. Works studied exemplify the universality of human experience. This course fulfills 2,000 words of the Gordon Rule requirement. Prerequisites: ENC1101, 1102 or equivalent. (3 hr. lecture)

LIT2131
Mythology in Literature: The Arthurian Tradition **3 credits**
This 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)

LIT2140
Contemporary World Novel **3 credits**
An intensive study of the novel in the contemporary world including the reciprocal influences between the novel and the film. (3 hr. lecture)

LIT2323
Introduction to Mythology in Literature **3 credits**
Using the work of Carl G. Jung (archetypal symbolism) as a conceptual foundation, the course will examine universal themes and motifs in myths from various cultures and in some contemporary literature and film. (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 and 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. This course fulfills the oral communication requirement and 4,000 words of the Gordon Rule requirement. (3 hr. lecture)

English Language and Literature – College Preparatory

ENC0002
College Preparatory
Writing 1 **4 credits**
ENC 0002 is a college preparatory writing course which addresses effective sentence development using standard edited American English. Laboratory required. Prerequisites: Placement by Scholastic Assessment Test (SAT) verbal subtest score; American College Testing (ACT) English subtest score; or Computerized Placement Test (CPT) English Subtest score. (4 hr. lecture)

ENC0020
College Preparatory
Writing 2 **4 credits**
ENC 0020 is a college preparatory writing course which addresses effective sentence and paragraph development using standard edited American English. Laboratory required. 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 successful completion of Enc0002. Special fee. (4 hr. lecture)

ENC0021
College Preparatory
Writing 3 **4 credits**
ENC 0021 is a college preparatory writing course which addresses effective sentence, paragraph and essay development using standard edited American English. 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 successful completion of ENC 0020. (4 hr. lecture)

Environmental Studies

EVR1001
Introduction to
Environmental Studies **3 credits**
This course will introduce the fundamentals of major topics in the environmental studies field, covering the scientific, social, political and economic aspects of environmental law. Through oral and written assignments and hands-on investigations, students will learn about the different processes affecting ecosystems, especially those of South Florida. 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**
Increasingly strict legislation and continuing public interest in conservation and environmental matters have emphasized the importance of flow measurements. Uniform and reliable measurement 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 and will be of practical value to individuals dealing with the realities of difficult open channel flow problems. (3 hr. lecture)

EVR1230
Air Pollution **3 credits**
Study of air pollution as it directly relates to the combustion of fuel for industrial production, transportation and for the production of electricity for domestic use. Discrete air pollution problems are identified and proper quality assurance/quality control (QA/QC) and regulations associated with air monitoring and sampling are discussed. (3 hr. lecture)

EVR1262
Introduction to
Ecology and 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 field 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 company 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)

EVR1635
Hazardous Communication Standard **3 credits**
Communications required by law will be the major emphasis in this course, including worker's right to know and community right to know. The communication that must be available to emergency responders is also addressed. Specific topics covered include material safety data sheets (MSDS), proper labeling of containers and placarding according to NFPA requirements, and the preparation of a written program for an industry to follow to provide a safe working environment for employees and safe living conditions for the community. (3 hr. lecture)

EVR1639
Hazardous Materials Transportation Storage and 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. (3 hr. 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 and 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 is 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)

EVR1809
Industrial Hazardous Waste **3 credits**
This course will have a major emphasis in the field of industrial waste, industries that generate industrial waste, waste products generated by different industries, regulation of industrial and hazardous wastes, identification of chemicals used by different industries and inspections of industrial facilities. The student will gain valuable experience in properly evaluating safe field survey techniques and sampling techniques. (3 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 variable 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 student 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)

EVR2636
Emergency Response Bridge **1 credit**
This course provides the necessary information and skills to the vocational student who has completed VCC courses: Basic Emergency Response and Intermediate Emergency Response to qualify for Associates of Science credit for EVR 1633. Hazardous Materials Emergency Response 1, and EVR 2613, Hazardous materials Response 2. (1 hr. lecture)

EVR2641
Hazardous Materials Regulations 1 **3 credits**
An in-depth study of the Environmental Protection Agency including RCRA, CERCLA, TSCA, FIFRA and clean air and water issues. Emphasis will be placed on developing methods and strategies to ensure regulatory compliance. Determine applicability of federal, state and local regulations dealing with hazardous materials. Agencies examined include the Department of Transportation (DOT), The National Regulatory Commission (NRC), and Department of Natural Resources (DNR). Prerequisite: EVR 1640. Special fee. (3 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 impact 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)

EVR2680
Hazardous Materials Packing and Shipping **3 credits**
Students learn to package chemical, infectious and nuclear materials for transportation. The legal documentation that accompanies shipments will be taught as will the required safeguards for actually shipping hazardous materials. (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 are examined. 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 2050, infectious and Nuclear Materials; and 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)

EVR2808
Hazardous Materials Injuries **3 credits**
This program provides the necessary information to medically trained personnel to be able to provide the necessary medical management to chemically exposed persons under field conditions. Students learn the proper patient decontamination processes, how to protect themselves during the care of patients and how to medically manage the exposures. (3 hr. lecture)

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, respond 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)

EVR2860
Regulatory Risk Bridge **2 credits**
This course provides the knowledge and skills for the student to receive Associate of Science credit In EVR 1010,Environmental compliance; EVR 1635, Hazard Communication Standard; EVR 1640, Hazardous Materials Regulations 1; EVR 2630, Hazardous Materials Risk Analysis, and EVR 2641, Hazardous Materials Regulations 2. The student must have satisfactorily completed VCC courses;A Survey of Hazardous Materials Regulations, Elementary Risk Assessment, Hazmat Communications, Environmental Compliance, and the Hazard Communications Bridge Course EVR 2631. (2 hr. lecture)

EVR2890
Instrumentation Monitoring and Sampling **3 credits**
Emphasis is placed on the methodology of sampling, analyzing, and interpreting results of hazardous materials. The program will include industrial hygiene sampling, testing Ph and moisture content, selecting analytical service laboratories and an introduction to chemical methods of analysis including spectroscopy and chromatography. (2 hr lecture; 2 hr. lab)

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)

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)

CTE1705
Fashion Design Fundamentals **3 credits**
An exploration of the basic principles and plastic elements of fashion design, with emphasis on line, color, form, space and texture as they apply to apparel. Laboratory fee. (1 hr. lecture; 4 hr. lab)

CTE1731
Fashion Illustration 1 **3 credits**
Basic skills in sketching the fashion figure and apparel are developed. Varied media and current rendering techniques are explored. Laboratory fee. (1 hr. lecture; 4 hr. lab)

Film, Radio, TV Technology

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)

FIL1100
Film Writing **3 credits**
This is a writing workshop covering scriptwriting used in the filmic and electronic media. Additionally, the course provides an introduction to the cinematic techniques common to motion pictures and television. Prerequisite: FIL 1281. (3 hr. lecture)

FIL1420
Film Production 1: Introduction to the Film Process **4 credits**
An overview of the art and technology of story-telling through film. Students move from story boards to the finished product using 16mm cameras to provide original short narrative silent films. Laboratory fee. (2 hr. lecture; 4 hr. lab)

FIL1431
Film Production 2 **4 credits**
Students develop both technical and aesthetic skills by making a short 16mm sound film and experiencing each of the key roles on a film crew. Prerequisite: FIL 1270 with "C" grade of better. Laboratory fee. (2 hr. lecture; 4 hr. lab)

FIL1525
TV and Film Computer Application **3 credits**
Applications of software for scriptwriting, storyboarding, production scheduling and cost control, project inventory and TV graphics. (2 hr. lecture; 2 hr. lab)

FIL1601
The Business of Film and Video **2 credits**
The basic principles of business as applied to the film, video and broadcasting fields. (2 hr. lecture)

FIL1949
Co-op Work Experience 1: FIL **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)

FIL2240
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, faxsheets and set designs, casting, wardrobe and make-up considerations. They will also learn to prepare a location and studio set-up. (1 hr. lecture; 2 hr. lab)

FIL2251
Film Camera and Lighting **2 credits**
Students learn more about the relationship between film and lighting at a more advanced level, and apply this to creative production in 16mm film. Laboratory fee. (1 hr. lecture; 2 hr. lab)

FIL2278
Film Workshop **3 credits**
Advanced film techniques are used to produce a short film. Students will go through all the steps required for the film production of a 16mm film. Prerequisite: Permission of department chairperson. A.S. degree credit only. Special fee. (2 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)

FIL2480
Film Direction **3 credits**
Students learn Director's responsibilities including working with writers, talent, producer and various production and post-production departments. Prerequisite: FIL 1276. Laboratory fee. (2 hr. lecture; 2 hr. lab)

FIL2515
Film Production 3 **4 credits**
Working in teams, students apply kowledge acquired in scriptwriting, sound, cinematography, directing and editing to the completion of 20-minute narrative films of portfolio quality. Prerequisites: FIL 1276 with "C" grade or better, FIL 2102. Laboratory fee. (2 hr. lecture; 4 hr. lab)

FIL2560
Advanced Editing (Digital) **3 credits**
This course is designed for advanced students of editing. Students will have a basic understanding of editing operations and aesthetics before entering this course. This course will cover on-line and off-line non-linear editing systems as currently understood in the television and motion picture industry. There will be emphasis on operation and aesthetic principles of editing as they apply to non-linear editing. Special attention will be given to storage capabilities and computer platform differences. This is an operational course on the Media 100 non-linear editing system. Prerequisite: FIL 2211. Special fee. (2 hr. lecture; 2 hr. lab)

FIL2571
Film Editing and Post-Production **2 credits**
Students will learn film editing techniques and other post-production processes including film-to-tape transfer, introduction to non-linear editing, answer-print process and optical effects. Co-rerequisite: FIL 1276. Special fee. (1 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 1276. (3 hr. lecture)

FIL2931
Careers in Film/Video **1 credit**
Students are exposed to the full range of careers in film, video and broadcasting in addition to learning about resumes, internships, interviews and portfolios. (1 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 1276 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 Co-Operative Education Office to obtain registration approval. Prerequisite: FIL 2277. (3 hr. lecture)

FIL2952
Film Production Preparation **1 credit**
Students will prepare for the job market with preparation of portfolio-quality tapes of work and resume; also training in interview skills. Corequisite: FIL 2277. (1 hr. lecture)

RTV1000
Fundamentals of Broadcasting **3 credits**
The history and development of modern broadcasting and the inter-relationships of the various media. Social, economic and governmental controls; modern technical advances; network and station operations; organization and policies in typical broadcasting companies are discussed. (3 hr. lecture)

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 and 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)

RTV1949
Co-op Work
Experience 1: RTV **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)

RTV2226
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, styleguides, news copyediting, approaches to information sources, and 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)

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, copyediting 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)

RTV2244
TV Direction 2 **3 credits**
Provides a deeper knowledge of the directing equipment of a television crew. The students works for several different producers and develops a reasonable competence in handling a wide variety of producing and directing situations. Prerequisite: RTV 2243C. (2 hr. lecture; 2 hr. lab)

RTV2245C
Electronic Field
Production 1 **4 credits**
Students learn single camera field production and electronic news gathering. Location productions are done in teams. Prerequisite: RTV 1242C. (2 hr. lecture; 4 hr. lab)

RTV2246C
Electronic Field
Production 2 **4 credits**
Students will learn advanced single-camera and multi-camera production on-location with full editing and other post-production techniques. Prerequisite: RTV 2245C. (2 hr. lecture; 4 hr. lab)

RTV2247C
TV Master
Control Operations **3 credits**
This is a course designed to familiarize students with master control operations typical of a commercial broadcast station, cable company or independent provider. The course includes station operation, programming, reading and writing of logs, SMPTE time code reading, switching operations, audio design and operations. Prerequisite: RTV 1242C. (1 hr. lecture; 4 hr. lab)

RTV2248C
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)

RTV2249C
Radio Program Operations **3 credits**
Instruction and practice in the preparation and delivery of various types of radio programming. Students combine knowledge of station organization and procedures, operational language, skills and procedures, announcing skills, and techniques with new materials of format preparation and presentation as required by typical announcer-operators found in smaller stations. Prerequisites: RTV 1000, 1241C. Laboratory fee. (2 hr. lecture; 2 hr. lab)

RTV2250C
Video Post-Production **2 credits**
Post-Production includes the gathering of video, audio and graphic material and combining them into a final video program including linear A/B roll editing using BETASP format. Prerequisite: RTV 2245C. (1 hr. lecture; 2 hr. lab)

RTV2251C
Advanced Editing
(Digital) **3 credits**
This course is designed to familiarize the student with non-linear editing and to give the student the opportunity to perform the functions of a non-linear editor. Three editing systems are used. AVID and Media 100 for video and studio editing and Digidesign with ProTools in a non-linear audio-only editing system. Prerequisites: RTV 2245C, 2250C. (1 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, along with casting, wardrobe and make-up considerations. Students will also learn to prepare a location and studio set-up. (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)

RTV2949
Co-op Work
Experience 2: RTV **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)

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)

VIC1202
Television and
Film Arts and Graphics **3 credits**
The production and use of visual graphics material for television and film covering the standards and procedures of the art, and techniques and materials used. Hands-on training in the production of computer generated 2D graphics and animation. Laboratory fee. (2 hr. lecture; 2 hr. lab)

VIC2203
Videographics and Animation 1 **4 credits**
Graphic design for the screen with detailed analysis of the effects of space and distance among elements, the use of effective typography, color applications, the use of art and photography, the creation of promotional graphics, and the integration of graphics with today's technology will be explored. Hands-on training in the production of computer generated 2D videographic animation. Prerequisite: VIC 1202. (2 hr. lecture; 4 hr. lab)

Finance

FIN2000
Principles of Finance **3 credits**
This course examines 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 investor. (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 along with management policies and decisions. (3 hr. lecture)

FIN2100
Personal Finance **1-3 variable 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

FFP1000
Fire Protection **3 credits**
Career opportunities in jurisdictions responsible for protection and prevention of loss of lives and property due to fire. An abbreviated review of regulating codes and agencies, suppression requirements and the basis of a fire prevention program. (3 hr. lecture)

FFP1040
Industrial Fire Protection 1 **2-3 variable credits**
Specialized instruction and training for public and private sector business and industry who maintain a fire brigade at the incipient level, as defined by OSHA Regulations 29 CFR, 1910, Subpart L. Minor curriculum variations and added hours will be made to accommodate the varying needs of local business and industry. (2-3 hr. lecture)

FFP1140
First Response for Fire Service **3 credits**
A training course for students who will provide basic life support to victims of emergencies, to minimize patients' discomfort and prevent further injury. This course is required for acceptance to EMS classes and is a required part of Fire Fighter Trining, but may be taken by itself. (2 hr. lecture; 2 hr. clinic)

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, underwriters 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 building 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 hydraulics 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 variable 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)

FFP2666
Airport and Aircraft Fire Protection and Operations **3 credits**
Introductory instruction, for those persons assigned to an airport fire department, including working knowledge of aircraft types, and extinguishing systems, airport firefighting equipment; extinguishing agents. Students will become familiar with airport operations, training, general fire prevention and activities during fueling. Training is in compliance with National, State and Dade County Aviation Department requirements. Special fee. (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 instructor's responsibilities in transmitting good study habits, class communication; human relations; learning and teaching concepts; job analysis, identifying teaching objectives; teaching methods and techniques; instructional aids 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)

FFP2781
Municipal Fire Administration **3 credits**
Administrative procedures necessary for the efficient appraisals, improvement, and implementation of fire protection serives of a city/county government. The inter-relationships of departmental organization, personnel management, fire alarm signaling systems, fire insurance regulations and the maintenance of mutual aid with other departments. (3 hr. lecture)

FFP2810
Fire Fighting Tactics and Strategy **3 credits**
The principles of efficient utilization of manpower, 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)

FFP2811
Command Tactics and Strategy **3 credits**
An advanced study of sophisticated urban problems involving large scale movement of people and equipment; mutual aid agreements and their authority relationships; natural and man-made catastrophes. Emphasis is on communication and command responsibilities. Prerequisite: FFP 2810. (3 hr. lecture)

Food Service

FOS1201
Food Sanitation **3 credits**
Major topics covered, scientific rationales for safety and sanitation procedures; causes of food-borne illnesses and preventive measures; sanitation practices and safety regulations and practices. (3 hr. lecture)

FSS1100
Food Purchasing/ Menu Design **3 credits**
The relationship of facility, equipment and staff capabilities to menu content. Development of the menu as an effective sales tool. Menu format and design as an aid to merchandising. (3 hr. lecture)

FSS1115
Food Preparation/ Menu Design **3 credits**
The relationship of facility, equipment and staff capabilities to menu content. Development of the menu as an effective sales tool. Menu format and design as an aid to merchandising. (3 hr. lecture)

FSS1202C
Elementary Food Preparation **4 credits**
Production and the use of food and materials, development of standards of food preparation; the effect of these factors upon economics, nutritive value and aesthetic appeal of food materials. A.S. degree credit only. (2 hr. lecture; 4 hr. lab)

FSS2224
Quantity Food Preparation **3 credits**
Advanced food preparation. Emphasis is placed on the application of these skills in realistic management operating situations. Corequisite: FSS 2225L. A.S. degree credit only. (2 hr. lecture; 2 hr. lab)

FSS2225L
Quantity Food Preparation Laboratory **2 credits**
On-hand preparation of meals in quantity portions using commercial equipment, standard recipes, and menu items catered to the Wolfson Campus population. Corequisite: FSS 2224. A.S. degree credit only. (4 hr. lab)

FSS2240C
Creative Cooking **3 credits**
Basic cooking skills and the necessary culinary skills required in classical cuisine for special interest students. The course focus will be on production of international menu items with emphasis in European cuisine. Prerequisite: FSS 1202C. Laboratory fee. A.S. degree credit only. (3 hr. lab)

FSS2431
Food Facilities Layout and Design **3 credits**
Planning of food service facilities is stressed; time and motion principles are employed; equipment purchasing techniques analyzed. (3 hr. lecture)

Foreign Languages (in Translation)

FOT2800
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)

FOT2803
Legal Translation **3 credits**
Continuation of SPT 2800. 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)

FOT2808
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 2800, 2803. (3 hr. lecture)

FOT2809
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 2810, 2815, and FOT 2816 (recommended). (3 hr. lecture)

FOT2810
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)

FOT2815
Consecutive Interpretation **3 credits**
This course builds on the foundation established in Introduction to Interpretation (SPT2810) and acquaints the students with the practice and application of consecutive interpretation (English/Spanish). Development of active listening, concentration and retention skills as well as the ability to perceive essential meaning for subsequent recall is emphasized. This course also explores basic note-taking techniques and provides practice in monolateral and bilateral consecutive interpretation. Prerequisite: SPT2810. (3 hr. lecture)

FOT2816
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: SPT 2810, 2815; corequisite: SPT 2811. (3 hr. lecture)

FOT2820
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)

FOT2832
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: SPT 2800, 2803 (3 hr. lecture)

FOT2833
Court Interpreting Skills **3 credits**
Continuation of SPT 2810 including deepening and broadening the type of exercise of SPT 2810 and gradual introduction to simultaneous interpretation. Oral translation with notes and of 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)

SPT2811
Oral Interpretation Skills **3 credits**
Continuation of SPT 2810 including deepening and broadening the type of exercise of SPT 2810 and gradual introduction to simultaneous interpretation. Oral translation with notes and of 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)

SPT2821
Computer-Assisted Translation 2 **3 credits**
Continuation of SPT 2820. Broadens and deepens previous experience in using the WCC Translation Program. Completes the review of grammar needed for inputting new vocabulary to the dictionaries of the WCC program, provides extensive practice in post-editing techniques, and introduces the operations of an optical scanner, a desktop publishing system, a laser printer and the use of modems. (3 hr. lecture)

SPT2822
Practica in Computer-Assisted Translation **3 credits**
Supervised work experience in the field of computer-assisted translation. Students will spend a minimum of six hours per week performing actual translation tasks for local professional translation agencies, companies, etc. (6 hr. lab)

French Language and Literature

FRE1113
Phonetics and Vocabulary 1 **3 credits**
Applied phonetics and vocabulary development. Level 1. Offered through Overseas Study Program. (3 hr. lecture)

FRE1114
Phonetics and Vocabulary 2 **3 credits**
Applied phonetics and vocabulary development. Level 2. Offered through Overseas Study Program. (3 hr. lecture)

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 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)

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)

FRE1170
France Travel Study **3 credits**
Combines the study of French with travel to France or a French-speaking nation and in consultation with the instructor, presentation of a project focusing on some aspect of culture or life of the country or region visited. (3 hr. lecture)

FRE2200
Intermediate French 1 **4 credits**
French culture learned through a systematic review of reading and writing skills with emphasis on oral as well as written presentation. Prerequisite: FRE 1121 or equivalent. (4 hr. lecture)

FRE2201
Intermediate French 2 **3 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: FRE 2200. (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)

FRE2330
Advanced French
Grammar and Civilization 1 **3 credits**
An approach to grammatical analysis. A synopsis of fundamental usages. Also an introduction to French civilization and culture from the earliest period to the Renaissance. Prerequisite: FRE 2201 or equivalent. (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)

FRW2020
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)

FSE1204
Computer Literacy
in Funeral Services **1 credit**
This is a hands-on, basic computer literacy course designed to acclimate the funeral services student to computers and their usage as they relate to the funeral services industry. Special fee. (2 hr. lab)

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 and public health in the embalming practice. (3 hr. 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: FSE 2140L. 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 accurals. 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 **3 credits**
Applications in funeral service with emphasis on the practical aspects of funeral directing. Procedures on taking first call, buying and selling of merchandise, funeral arranging, conducting funerals, job interviewing and resume writing. Prrequisites: FSE 2060, 2061, 2200, 2202. (3 hr. lecture)

FSE2931
Funeral Service
Professional Review **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**
Basic principles of ownership, management, marketing, personnel, finance, accounting, business research and law as they affect the operation of American business and industry. (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. (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)

GEB2893
Strategic and Policy Issues in Non-Profit Organizations **3 credits**
This course provides a culminating experience for the student involved in the non-profit sector to integrate course work with current issues in the non-profit field. Three to four topics relevant to the management and boards are previewed with professionals from these areas as guest speakers. An understanding of the case study method will be required in order for students to prepare a case study for their non-profit organization and propose a solution. Issues to be included are: resource development, financial management, technology and capacity building. Students will present their findings in a formal presentation to industry professionals. It is recommended that students take this course in their final semester. (Annually, the topics selected for inclusion will be reviewed.) (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

GEA2030
Regional Geography of the Non-Western World **3 credits**
Description and analysis of the nations and regions of the non-Western World. Universal geographic concepts are emphasized. The relative location of regions and nations is evaluated in terms of their physical environments and political and economic trends. Emphasis is also given to demography and resource utilization. (3 hr. lecture)

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. Lastly, the course will heighten the student's awareness of the visible expressions of culture and landscape. (3 hr. lecture)

GIS2040
Introduction to GIS **4 credits**
An introduction to Geographic Information Systems. Included is awareness of G.I.S., an introduction to G.I.S. models and formats, as well as map-making and analysis. Students will use ArcView G.I.S. software. (3 hr. lecture; 2 hr. lab)

GIS2045
Intermediate GIS **4 credits**
A second course in G.I.S. utilizing ArcView software. This course covers discrete geocoding and geoconferencing, data input, spatial databases, creation of data and the use of ArcView Network Analyst Extension. (3 hr. lecture; 2 hr. lab)

GIS2056
Advanced Geographic Information Systems **4 credits**
This is the final course in the 3-semester sequence in G.I.S. utilizing ArcView G.I.S. software. In this course the student will use ArcView G.I.S. Spatial Analyst extension as well as learn how to conceptualize spatial problems, data and operations. Students will also be introduced to remote sensing and image processing principles and techniques including the use of ArcView's Image Analyst Extension. (3 hr. lecture; 2 hr. lab)

Geology

GLY1001
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)

GLY1001L
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)

GLY3171
Gemorphology 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 Appalachain highlands, the Rocky Mountains, Alaska and the Hawaiian Islands. Prerequisite: GLY1010, 1100. (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 and Meteors: An Introduction to Plantery Science **3 credits**
An upper level course that explores both modern and historical views on the orgins 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)

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)

GER2201
Intermediate German 2 **3 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 2200. (3 hr. lecture)

GER2220
Intermediate German 1 **4 credits**
German culture learned through a systematic review of reading and writing skills with emphasis on oral as well as written presentation. Prerequisite: GER 1121 or equivalent. (4 hr. lecture)

GER2240
Intermediate German Conversation and Composition 1 **3 credits**
Aids the student in attaining oral and written proficiency in German. Prerequisite: GER 2201 or equivalent (3 hr. lecture)

GER2241
Intermediate German Conversation and Composition 2 **3 credits**
The course continues to develop effective oral and writing communication skills in the German language with emphasis on the German verb system and the use of idiomatic expressions in conversation and composition. (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 desireable. 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)

GRA1141
Graphic Imaging 2 **4 credits**
Create and prepare dynamic graphics, SWF interactive movie, and QuickTime 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 1433. 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, copyfitting, mark-up and vocabulary. Laboratory classes consist of computer typesetting machine operation, various typesetting projects and problems. Prerequisite: GRA 1330. Laboratory fee. (2 hr. lecture; 4 hr. lab)

GRA1210C
Offset Stripping, Black and White **4 credits**
Fundamentals of single color layout and stripping as used in offset lithography. Includes actual practice and instruction in the tools used in stripping, performing the various operations of laying out and stripping-up flats for single color plates. Prerequisite: GRA 1280C. 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, and 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)

GRA1330
Introduction to Graphic Communications **3 credits**
This course will introduce the Graphic Arts and Graphic Design (Commercial Art) student to the study of the history, basic manual procedures and future technology of the computer age in the Graphic Communications industry. It is designed to offer participants an overview of the entire printing process, from start to finish. It is based on NAPL's Workbook Graphic Arts Processes. It is recommended for all students during the first year, first term. (2 hr. lecture; 2 hr. lab)

GRA1403
Graphic Arts Estimating 1 **3 credits**
This course will introduce the Graphic Arts and Graphic Design (Commercial Art) student to the analysis of the economic principles involved in advertising production; kinds, sizes, uses, weights and finishes of paper, construction and use of plates; acquisition of materials and methods of binding. Students will learn the pre-planning necessary in the reproduction of printing. Prerequisite: GRA 1422 . (2 hr. lecture; 2 hr. lab)

GRA1750
Introduction to Graphic Internet Technology **3 credits**
Introduces 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 Web sites. Students will learn to appreciate the aspects of a well-designed web site. 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 and 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 web sites. Prerequisites: GRA 1144, 2577C. Special fee. (2 hr. lecture; 4 hr. lab)

GRA1752
Graphic Imaging 1 **4 credits**
Introduces 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)

GRA1754
Graphic Interface Design 2 **4 credits**
Introduces a comprehensive process of web page design and internet architecture. Continues 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 web sites. Prerequisites: GRA 1751, GRA 1752. Special fee. (2 hr. lecture: 4 hr. lab)

GRA1949
Co-op Work Experience 1: GRA **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)

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 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 microcomputer-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 personnel in the graphic arts industry whose jobs are 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 2577C. (2 hr. lecture; 4 hr. lab)

GRA2190C
Communications Design 1 **3-4 variable credits**
Problems in advertising design involving layout, lettering, current studio media and reproduction processes. Prerequisites: ART 1202C or 1300C. (1-2 hr. lecture; 4 hr. lab)

GRA2191C
Communications Design 2 **3-4 variable 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 Graphic Arts students to integrate black and white and color photography into their page layout or paint program. Students will learn the requirements of desktop drum and flatbed scanning, retouching, color correcting, preproofing, correcting again and output to laser printers, color printers and imagesetters. Prerequisites: GRA 2577C. Special fee. (2 hr. lecture; 4 hr. lab)

GRA2304C
Color Reproduction Technology 1 **4 credits**
The theory and fundamentals of color and light as applied to photomechanical processes. Instruction will emphasize synthesis of additive and subtractive color, densitometry, use of panchromatic continuous-tone materials and introduction of correction requirements. Corequisite: GRA 1280C. (3 hr. lecture)

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)

GRA2404C
Graphic Arts
Estimating 2 **3 credits**
This advanced course will introduce the Graphic Design (Commercial Art) student to the process of figuring out the cost of a job that they have produced. They will figure what the shop rate is for each area of production. It will also involve the use of a computerized estimating software program. Prerequisite: GRA 2545C. (2 hr. lecture; 2 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, comprehensives, mechanical camera and stripping. Prerequisite: GRA 2545C. Laboratory fee. (2 hr. lecture; 4 hr. lab)

GRA2577C
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 desktop scanning, retouching, color correcting, pre-proofing, correcting again, and output to laser printers, color printers and imagesetters. Corequisite: GRA 1280C. 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 titles, 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 1141. 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 scaleable and simple to mantain. 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)

GRA2756
Alternate Media
Creation **4 credits**
Prepare electronic documents for conversion for use on the internet or for use in multimedia projects. Understand Portable Document Format (PDF) as the de-facto standard for electronic documents. Learn how PDF files can be published and distributed anywhere: in print, attached to e-mail, on corporate or intranet servers, posted on web sites, or on CD-ROM. Learn how PDF files can be shared, viewed, navigated and printed exactly as intended by any PDF. Learn navigational structures, creating, editing and distributing documents, as well as building searchable Portable Document Format Libraries. Introduce students to the hardware and software necessary to produce PDFs for distribution or use on the internet. Introduce creative and production aspects of PDF. Required for students in the Graphic Internet Tech degree. Recommended for publishing web design or advertising industry personnel who wish a comprehensive course on PDF. Prerequisites: GRA 1141, 2577C. Special fee. (2 hr. lecture; 4 hr. lab)

GRA2811C
Applied
Illustration 1 **3-4 variable 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 Co-Operative 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 speakers 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 or HAI 2340. (3 hr. lecture)

HAI2720
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 in 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 Data Collection **2 credits**
The basic functions of a health information department and the roles and responsibilities of each of the operational units. The student will learn the various numbering and filing systems and how to analyze the medical record for completeness and accuracy. The components of the various indices and registers and their importance are explored. Prerequisite: HIM 1000, 2472; corequisite: HIM 1110L. (2 hr. lecture)

HIM1110L
Health Information Management Data Collection Lab **3 credits**
The application of the minimum basic requirements for health records imposed by regulatory agencies. How health information systems contribute to the health record as a communicative document will be explored. Concepts relating to confidentiality, ethics and release of information will be applied. Corequisite: HIM 1110. Laboratory fee. (6 hr. lab)

HIM1800
Health Information Management Directed Practice 1 **2 credits**
Supervised clinical practice in a health care setting. The students will apply the minimum basic requirements for health records imposed by regulatory agencies as well as standard practices relating to confidentiality, ethics and release of information will be applied. Corequisite: HIM 1110L. (6 hr. lab/clinic)

HIM2012
Legal Aspects of Health Care **2 credits**
The court system of the United States of America and the interconnection between the health care system and the federal government. Policies and procedures regarding confidentiality of patient information and the handling of health records and health care data and record retention periods are identified. (2 hr. lecture)

HIM2211C
Health Information Technologies **2 credits**
This course will enable students to apply knowledge of computer technology to health information management. The student will gain experience with a variety of applications used to maintain health care records. Prerequisites: HIM 2500, 2500L. (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
Basic ICD-9-CM Coding **2 credits**
Disease and operation classification, using the International Classification of Diseases, 9th Revision, Clinical Modification, (ICD-9-CM) and indexing systems. This course is designed to teach basic concepts and coding principles. The student is introduced to Diagnosis Related Groups (DRGs) and their relationship to coding. The historical development of the International Classification of Disease and the various nomenclatures and classification systems are also included. The student learns to differentiate between the various abstracting methods used to collect patient data. Procedures and controls used in a health information department to ensure data quality are discussed. Prerequisites: BSC 2086, 2086L; corequisite: HIM 2222L. (2 hr. lecture)

HIM2222L
Basic ICD-9-CM Coding Laboratory **3 credits**
Translation of diagnoses and operations into numerical designations (codes) utilizing the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM). Automated coding using the computer and encoding software is performed. Abstracting and indexing are practiced. Prerequisite: HIM 2222. Laboratory fee. (6 hr. lab)

HIM2234
Advanced ICD-9-CM Coding **2 credits**
Knowledge of anatomy, the clinical disease process diagnosis and procedural terminology, and pharmacology applied for correct code assignment and sequencing using the ICD-9-CM coding system. Approved coding guidelines in Coding Clinic for ICD-9-CM and current reimbursement and case mix considerations are emphasized. Prerequisite: HIM 2222; corequisite: HIM 2234L. (2 hr. lecture)

HIM2234L
Advanced ICD-9-CM Coding Laboratory **1 credit**
Application of anatomy, the clinical disease process, diagnosis and procedural terminology, and pharmacology in ICD-9-CM coding. Emphasis is placed on the reading and interpretation of health care documentation to identify the correct codes and sequence them accurately using current guidelines. Prerequisite: HIM 2222L; corequisite: HIM 2234. Laboratory fee. (2 hr. lab)

HIM2253C
Current Procedural Terminology/CPT-4 **2 credits**
Coding and reporting diagnostic and therapeutic procedures in the ambulatory care setting. Students learn to read and interpret ambulatory health care documentation to classify services and procedures in CPT. Emphasis is placed on the interrelationship between providing health care services to patients and receiving payment for those services. Ambulatory patient groups (APGs) case mix classification system is discussed. (1 hr. lecture; 2 hr. lab)

HIM2260C
Health Insurance Billing and 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)

HIM2300
Health Care Facilities/Delivery **2 credits**
Organization and function of various types of health facilities, accreditation standards, Medicare law and the American health delivery system. (2 hr. lecture)

HIM2400C
Division of Non-Hospital Health Records **2 credits**
Management of health information systems and record-keeping practices in the non-acute care setting. The student will learn the documentation requirements based on federal and state statutes, accreditation standards, and Medicare Conditions of Participation. Health information professionals must take an active role in the development of quality records and information management procedures in non-acute care facilities. (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. Pre-requiste: HIM 2430. (2 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
and 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
and 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 1100, 1100L; corequisite: HIM 2500. (2 hr. lab)

HIM2512C
Supervision and
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)

HIM2810
Health Information
Management
Directed Practice 2 **2 credits**
Supervised clinical practice in a health care setting. The student will perform coding of patient health records utilizing the International Classification of Disease, 9th Revision, Clinical Modification (ICD-9-CM). Automated coding using the computer and encoding software is performed. Prerequisites: HIM 1110, 1110L; corequisite. Laboratory fee.(6 hr. lab/clinic)

HIM2820
Health Information
Management
Directed Practice 3 **2 credits**
Supervised clinical practice in a health care setting. The student will experience the use of specific motivational and communication techniques in health information supervision and the development of systems to meet the data needs of acute and ambulatory health care facilities. Applications in the use of basic health care definitions and data collection, analysis and display are explored. Prerequisite: HIM 2820; corequisite: HIM 2512L. Special fee. (6 hr. lab/clinic)

Health Science

HSC1121
Exploration of
Alternative Medicine and
Complementary Therapies **3 credits**
This is a survey course which will focus on the indications and contraindications of alternative medicine, the effects of these practices in daily life, and the role these therapies have as a compliment to traditional medical treatments. (3 hr. lecture)

HSC1400
Cardiopulmonary Resuscitation **1 credit**
Designed to teach the skills necessary for emergency care in cases of airway blockage respiratory and/or cardiac arrest. This course meets the American Red Cross certification requirements in Basic Life Saving Cardiopulmonary Resuscitation. (2 hr. lab)

HSC2100
Health Education **3 credits**
Designed to provide an orientation to the aspects of personal and community health while presenting a concept of wellness for healthful living. This course examines the current health trends relating to today's society. (3 hr. lecture)

HSC2400
First Aid **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 Red Cross certification requirements for Standard First Aid and Personal Safety and Basic Life Saving Cardiopulmonary Resuscitation. Special fee. (3 hr. lecture)

HSC2404
Instructor's Training
First Aid and 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)

HSC2532
Medical Terminology
and Procedures **4 credits**
Expansion of medical vocabulary to include: pharmacology, procedures, neoplasms, psychiatric and medical complications. HSC 2531. A.S. degree credit only. (4 hr. lecture)

HSC2560
Patient Care
Management **6 credits**
Specific standards as they relate to patient care. Areas include: care plans; subacute management; quality assurance; patient safety systems; coordination of department such as dietary, pharmacy, and nursing as they relate to the treatment and care of the patient; staff development and federal, state, and local requirements. Prerequisite: HSC 2531. (6 hr. lecture)

Hebrew Language

HBR1120
Elementary Hebrew 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)

HBR1121
Elementary Hebrew 2 **4 credits**
A continuation of HBR 1120. A proficiency-oriented course emphasizing the mastery of the basic skills of the language. Prerequisite: HBR 1120. (4 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**
The founding, growth and development of the United States from the colonial era through 1877. (3 hr. lecture)

AMH2020
History of
the US Since 1877 **3 credits**
A survey of social, economic and political developments in the United States Since 1877. (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
African-American History **3 credits**
A survey, including the African background, of the African-American in the United States history, with emphasis on their economic, political and cultural development. (3 hr. lecture)

EUH2022
Medieval Europe 2 **3 credits**
A survey of the formative period of European Civilization with emphasis on intellectual and institutional developments such as the Byzantine and Islamic Civilization, the evolution of feudal society, the Crusades, Scholasticism, Romanesque and Gothic art forms, etc. Covers the transition from the Roman Empire, the Barbarian and Carolingian background up to the age of European discovery and exploration. (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)

EUH2051
History of
Spain 2 **3 credits**
History of Spain as embodied in its literary, artistic and social traditions. Major political, economic and social forces in the nation's evolution before the 17th century. (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)

EUH2072
French Civilization
in the 16th, 17th
and 18th Centuries 1 **3 credits**
French society as reflected in the history, arts and social background from the Middle Ages to the Enlightenment and the French Revolution. Emphasis is given to religious, literary, artistic, social and philosophical factors. The Heritages of Antiquity and the Middle Ages are studied briefly as an introduction. (3 hr. lecture)

EUH2073
French Civilization
in the 16th, 17th
and 18th Centuries 2 **3 credits**
French society as reflected in the history, arts and social background from the Middle Ages to the Enlightenment and the French Revolution. Emphasis is given to religious, literary, artistic, social and philosophical factors. The Heritages of Antiquity and the Middle Ages are studied briefly as an introduction. (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)

LAH2025
History of Cuba **3 credits**
Historical analysis of the development of Cuban society, its culture and institutions. (3 hr. lecture)

WOH2012
History of
World Civilization to 1715 **3 credits**
World civilizations from the prehistoric period to the 18th century, with emphasis on cultural history. (3 hr. lecture)

WOH2022
History of
World Civilization from 1715 **3 credits**
Modern-world civilizations, emphasizing those which have had or are having a particularly strong impact upon the culture, problems and international relations of the United States. (3 hr. lecture)

Hospitality Management

HFT1000
Introduction to
Hospitality Management **3 credits**
Provides a basic understanding of the lodging and food service industry by tracing the industry's growth and development, reviewing the organization of hotel and food and beverage operations, and by focusing on industry opportunities and future trends. (3 hr. lecture)

HFT1210
Human Relations and
Supervisory Development **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**
Explains the development and implementation of communication skills and group interaction techniques involved in basic interpersonal relationships in the hospitality industry. (3 hr. lecture)

HFT1300
Supervisory Housekeeping **3 credits**
Provides an overview of the fundamentals of housekeeping management. This course describes the management functions, and tools and practices required in today's lodging and institutional housekeeping departments. (3 hr. lecture)

HFT1441
Point of Service **1 credit**
Provides the student with the opportunity to acquire knowledge of and use the MICROS× Point of Sales as a valuable and accurate tool to control the complete operation of hotels and restaurants. Students will gain knowledge and hands on experience from the initial ordering process to the final server's activity on the floor, as well as knowledge of the related hardware and software. Cost controls, labor cost, inventories, payroll and system maintenance for optimal performance will be analyzed in depth. Special fee. (1 hr. lecture)

HFT1609
Responsible
Beverage Vendor **1 credit**
Introduces students to the responsibilities and liabilities incurred by establishments and individuals who serve alcoholic beverages 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 progams, 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 is on cost concepts, pricing, menus, restaurant and kitchen design, space allocation, ergonomics and safety and sanitation. Corequisite: HFT 1000. (3 hr. lecture)

HFT2223
Training/Supervisory
Development 3 **3 credits**
Considers the assessment and analysis of training needs, the systematic design of instruction, the evaluation and management of training programs, and management of the training function. (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)

HFT2252
Rooms Division Management **3 credits**
Provides students with the opportunity to acquire knowledge of the practices and systems utilized in the operational management of a lodging facility. Emphasis is on the aspects of the front office, reservations, accounting and inventory controls, franchising agreements, sales and marketing, food and beverage service, security, loss prevention and housekeeping services in hotels and motels. Corequisite: HFT 1000. (3 hr. lecture)

HFT2260
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
Hotel Front
Office Procedures **4 credits**
An analysis of various jobs in the hotel/motel front office and procedures involved in reservations, registering and checking out guests. Accounting procedures and the operation of the NCR 4200, NCR 2250, and the NCR 2251 hotel posting machines. Prerequisites: ACG 2001, HFT 1000 and a minimum of a "C" average. (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)

HFT2444
E-Business for
the Hospitality Industry **3 credits**
Prepares students 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 examines technological applications ranging from distribution systems (GDS, CRS and web based), Property Management Systems and EPOS systems, to developments in telecommunications, while assessing their effect on the tourism sector. While a broad interpretation of both technology and tourism will be used, partiular 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 Service **3 credits**
Provides students with basic knowledge and practical experience which will enable them to develop strategic marketing plans for hotel/motel properties. (3 hr. lecture)

HFT2501
Hotel/Motel Sales
and Promotions **3 credits**
Presents a practical understanding of the operating statement and precisely where, how and why the sales effort fits into the total earnings and profit picture of a hospitality operation. Emphasis is on producing business at a profit. (3 hr. lecture)

HFT2750
Convention Service
and Management **3 credits**
Introduces students to the complete set of skills necessary to adequately perform as a hotel banquet manager and convention 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. Prerequisite: HFT 1000. (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 segements of tourism and hospitality, sales and marketing methods, management, and strategic planning. 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 ships and their relationship to the shoreside 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 shoreside office operations and sales procedures of cruise lines 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 line 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)

HFT2801
Food and
Beverage Service **3 credits**
Provides the practical skills and knowledge for effective management of food and beverage service in outlets ranging from cafeterias and coffee shops to room service, banquet areas and high-check average dining rooms. Presents basic service principles while emphasizing special needs of guests. (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)

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 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 in 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)

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 and
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)

HUS2800
Counseling Techniques
Laboratory **3 credits**
Practice counseling under supervised conditions using skills and techniques taught in HUS 1110 and HUS 2313. Work includes regular meetings with the supervisor. Corequisite: HUS 2313. (6 hr. lab)

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, 1110, 2303. (120 hrs. 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 HUS 2493 and must be approved by the supervising instructor. Prerequisites: HUS 2493, PSB 2442. (3 hr. lecture.)

HUS2941
Human Services Addiction
Counseling Practicum **3 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)

HUM2574
Classical Theatre **3 credits**
Explores the human view of the world as expressed through the medium of the theatre by studying a number of historically significant dramatic works which reveal perceptions of various societies; production techniques throughout the ages will also be examined. (3 hr. lecture)

Interdisciplinary Honors

IDH2931
Honors Seminar **1-3 variable 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)

IDH2935
Honors Retreat Seminar **1 credit**
A concentrated course of study which focuses on an in-depth exploration of a specific topic, issue or experience. Seminars will present a succession of themes and will present real world situations and problems to be solved as part of the learning process. May be repeated for credit. (1 hr. lecture)

IDH2970
Sophomore Thesis **1-3 variable 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 an upper- division institution to demonstrate their ability to apply the principles learned and the quality of their work. (1-3 hr. lecture)

Interdisciplinary Sciences

IDS2949
Service Learning
Applications **3 credits**
Examines service-learning as an educational pedagogy. Presents the pedagogy's underlying philosophy, practices and evaluation. This course provides opportunities to experience service-learning through direct participation in service and guided reflection about those experiences. It is offered primarily to meet recertification requirements for in-service K-12 teachers. (3 hr. lecture)

ISC1012
History of Science **3 credits**
A general survey of major issues in physical and biological science from the time of Galileo to the present. Emphasis will be placed on the impact of scientific development on society, culture and thought. Prerequisite: ISC 1010(H). Corequisite: ENC 1102(H). (3 hr. lecture)

ISC3012
History of Science **3 credits**
This course offers a historical perspective of scientific advances from early civilizations to the beginning of the twenty-first century. (3 hr. lecture)

Interior Design

IND1020
Interior Design 1 **4 credits**
Students' 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. (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 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)

ITA2201
Intermediate Italian 2 **3 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 2200. (3 hr. lecture)

ITA2220
Intermediate Italian 1 **4 credits**
Italian culture learned through a systematic review of reading and writing skills with emphasis on oral and written presentations. Prerequisite: ITA 1121 or equivalent. (4 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**
A continuation of JPN 1121. Students will complete all the inflection verbs. More "kanji" vocabulary of combined "Kanji" (comprised of two or more "Kanji") are introduced in order to read authentic materials with the use of "kanji" dictionary. Emphasis on cross-cultural awareness. Prerequisite: JPN 1121 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 variable 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. (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)

JOU2602
Introduction to Photojournalism **3 credits**
Practice and study in repertorial still photography, including darkroom techniques; visualization, selection and use of photography for the print media, legal, historical, stylistic and ethical aspects of journalistic still photography. Students must provide 35mm cameras, film and photography paper. Laboratory fee. Prerequisite: PGY 2401C. (6 hr. lab)

JOU2949
Co-op Work Experience 2: JOU **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)

Judaic Studies

JST2423
History of Ancient Israel **3 credits**
This course will deal with major ideas and themes in the social, political, intellectual and religious history of the people of Israel. (3 hr. lecture)

JST2815
History of Modern Israel **3 credits**
This course will begin with the period of the Enlightenment for the people of Israel and follow the historical developments which led to the development of the State of Israel. (3 hr. lecture)

Library Science

LIS1001
Library Research 1-3 variable 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)

LIN2605
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)

LIN2670
Modern English Grammar 3 credits
Grammatical relationships using traditional analysis in comparison with more recent linguistic techniques. (3 hr. lecture)

Management

MAN1023
Management for Non-Profit 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 what non-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, be efficiently managing financial resources, developing new revenue sources, adapting to change and effectively evaluating their community impact. (3 hr. 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 Co-operative Education Office to obtain registration approval. (3 hr. lecture)

MAN2021
Principles of Management 3 credits
Analyzes the major functions of management, planning, staffing, directing and controlling. Emphasis is placed on learning how to manage organizations for excellence in both performance and employee satisfaction. Major topics include goal setting and goal achievement, strategic planning, decision- making, designing organizational structure, motivating and leading, managerial control techniques and applications, managerial ethics and stress management skills. Computerized cases give students opportunities to make management decisions and get feedback on their effectiveness. (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)

MAN2949
Co-op Work Experience 2: MAN 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)

MNA1053
Condominium and Association Law 3 credits
An in-depth explanation of the legal basis for the creation and operation of the Condominium and Homeowner's Associations. Careful analysis of the current Florida law relating to Condos and Homeowner's Associations as they affect legal documents, statutory provisions and trends in new legislation will be explained. A.S. degree credit only. (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 harrassment-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)

MNA2344
Supervisory Practices **3 credits**
Improves skills that add to success in managerial positions. Emphasis is placed on assertiveness training, ways to manage conflict more effectively, supervisory counseling techniques, demonstrations of counseling conferences and team-building methods. Experienced managers are invited as guest speakers in question and answer sessions about management practices in their organizations. Prerequisites: MNA 1345, or 2120.A.S. degree credit only. (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)

MAR1145
Introduction to Food & Beverage Exporting **3 credits**
This class is the introductory class to the food and beverage specialty. It provides an overview of the food and beverage industry and defines products handled by the U.S. Department of Agriculture. Additionally, students will learn the basics of financing, researching and exporting products overseas. (3 hr. lecture)

MAR1200
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)

MAR1210
Business Logistics **3 credits**
This is a foundation course in logistics- the science of planning, organizing and managing all activities involved in physically moving raw materials, inventory and finished goods inventory from point of origin to the point of use or consumption. The material will emphasize the nature and importance of supply chain management and technologies as well as special topics of increasing importance in logistics. (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 problems facing international marketers in a multinational setting. Emphasis is placed upon export/import transactions. (3 hr. lecture)

MAR2147
Product Handling and Documentation in Food and Beverage Export **3 credits**
This course will cover product handling, storage, labeling, packaging and documentation. It will address the regulatory differences in moving a product through customs in foreign countries with an emphasis on Latin America and the Caribbean. (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)

MAR2156
International Marketing **3 credits**
This course covers the four P's of product, price, place and promotion as they relate to a global marketing strategy. The concepts are introduced within the international trade framework as well as the cultural and economic environment affecting foreign marketing efforts. (3 hr. lecture)

MAR2204
Export Distribution of Food Products **3 credits**
This course will explain the physical distribution channels in the food and beverage industry. It will define the differences among institutional, commercial and retail sectors in the market and how to access those sectors by developing a market strategy. The course will also study the operations side of transportation, ie., how to get the product to its destination, the most efficient routes and forms of transportation for the product. (3 hr. lecture)

MAR2332
Merchandising in the Food and Export Business **3 credits**
This course will provide additional knowledge in marketing a product through various marketing channels including trade shows, retail grocery store positioning and shelving. It will also explain the different cultural customs in the overseas markets with emphasis on Latin America and the Caribbean. (3 hr. lecture)

MAR2340
Resource Development **3 credits**
This course provides an overview of the ways in which a non-profit organization may enhance the image, increase participation and energize supporters around central issues. The course shows how an organization can develop a practical and systematic approach to fundraising. Students will learn to plan special events, analyze trends in non-profit funding, and understand the sources of funding, make a fundraising plan, apply for grants and plan campaigns (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)

MKA1045
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 Co-operative Education Office to obtain registration approval. (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 techniques 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. Prerequisites: MAT1033 with a grade of "C" or better, or satisfactory placement test scores. Special fee. (3 hr. lecture)

MAC1105L
College Algebra
Laboratory **1 credit**
This course is intended to accompany and support MAC 1105. The competencies of this laboratory course have been introduced in the accompanying lecture course. (2 hr. lab)

MAC1114
Trigonometry **3 credits**
Circular functions of real numbers, including topics of radian measure, the fundamental identities, solutions of triangles and complex numbers. Prerequisite: MAC 1140 or MAC 1105 with a grade of "C" or better or equivalent. 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-defined functions and conic sections. The student will solve polynomial, exponential and logarithmic equations, as well as systems of linear and non-linear 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 modeling problems related to the above topics. Prerequisite: MAC 1105 with a grade of "C" or better or equivalent. (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. (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; differentiation and integration of polynomial, logarithmic and exponential functions with applications to business. Prerequisite: MAC 1105. Special fee. (3 hr. lecture)

MAC2311
Calculus and
Analytical Geometry 1 **5 credits**
Introduction to analytical 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. (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. (4 hr. lecture)

MAC2313
Calculus and
Analytical Geometry 3 **4 credits**
Analytical 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. (4 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. (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. (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. 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: MAC2312. (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 homomorphisms 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 congruences, the Chinese Remainder Theorem, and the theorems of Euler, Fermat, and Wilson. Prerequisite: MAC 2312. (3 hr. lecture)

MAT1033
Intermediate Algebra **3 credits**
Through this course, students develop various concepts of Algebra. Students will solve linear, quadratic, rational and radical equations; graph linear equations and inequalities in one variable; graph linear equations in two variables; solve and graph systems of linear equations and inequalities in two variables; simplify rational expressions; simplify expressions containing rational exponents; simplify complex numbers; solve related applications. Prerequisites MAT 0024 or 0020 with a 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. Special fee. (3 hr. lecture)

MGF1106L
Mathematics for Liberal Arts 1 Lab **1 credit**
A laboratory course designed to give the student a high degree of skill and confidence in applying arithmetic, algebra, geometry, sets and logic, and probability and statistics, to solving problems expressed in CLAST format. Non-repeatable. Prerequisite: MAT 1033; Corequisite: MGF 1106. (2 hr. lab)

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. (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 CLAST 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)

MGF1120
Basic Probability **1 credit**
The purpose of this course is to introduce students to topics in probability and statistics from a real world prespective. (1 hr. lecture)

MGF2202
Finite Mathematics **3 credits**
Symbolic logic, sets, partitions, probability, vectors and matrices with emphasis on problems encountered in the business world. Prerequisite: MAT1033 or equivalent. (3 hr. lecture)

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)

MTB1321
Technical Mathematics 1 **3 credits**
Basic concepts of arithmetic, algebra, graphs, geometry, trigonometry, tables and interpolation needed in technical programs. (3 hr. lecture)

MTB1322
Technical Mathematics 2 **3 credits**
Applications of algebra, trigonometry and analytic geometry needed in technical programs. Prerequisite: MTB 1321 or 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. (3 hr. lecture)

MTG2204L
Geometry for Educators Laboratory **1 credit**
This is an accompanying laboratory to MTG 2204 in which students will perform constructions, work on projects and presentations, and use technology in exploring geometric properties and patterns. (2 hr. lab)

MTG4212
College Geometry **3 credits**
Topics include the axiomatic structure of Euclidean geometry as well as concepts from advanced Euclidean geometry and non-Euclidean geometry. Prerequisite: MAC 2312. (3 hr. lecture)

Mathematics – College Preparatory

MAT0002
College Preparatory Arithmetic **4 credits**
This course introduces students to the basic topics of arithmetic and measurement of geometric figures. Students will add, subtract, multiply and divide whole numbers, fractions and decimals. Students will solve problems involving proportions and percents. Prerequisite: Appropriate placement test scores or referral determine admission. (6 contact hrs. lecture/lab)

MAT0020
College Preparatory Mathematics **5 credits**
This course combines arithmetic and beginning algebra. Topics include sets, operations on signed numbers, solving linear equations and inequalities in one variable, operations on polynomials, factoring, integer exponents, radicals, graphing and applications of these topics. Placement test scores or referral determine admission. This course does not satisfy college level mathematics requirements for graduation. (8 contact hr. lecture/lab)

MAT0024
College Preparatory Algebra **4 credits**
This course introduces students to the concepts of algebra. Students will simplify or perform operations on signed numbers, radicals, polynomials and expressions containing exponents; factor polynomials; solve and graph linear equations and inequalities in one variable; graph linear equations in two variables; solve related applications. (6 contact hrs. lecture/lab)

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 the 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, non-protein nitrogen, and electrolyte chemistry analyses with emphasis on their relationships to various disease states. Analytical procedures to assess liver function and acid-base balance are also included. Prerequisite: CHM 1025; corequisite: MLT 1610L. 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 and 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 1119. (3 hr. lecture)

MLT2192L
Histotechnology 2 Laboratory **2 credits**
This course is a continuation of Histotechnology Lab 1. Students will be introduced to more complex laboratory techniques in histotechnology. Prerequisite: MLT 1119L; 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 diseases processes. Students will study the changes in tissue that are associated with various disease states, and will learn the usefulness of selected special stains and techniques in identifying disease processes. Prerequisite: MLT 1195C. (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 biochemicals used in histology with emphasis on laboratory preparation and use of histochemical and immunohistochemical 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 provide 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
Immunohematology **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
Immunohematology 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: MLT 1610; 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 electrophesis 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 toxixological 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: Immunohematology **3 credits**
A supervised laboratory rotation in a clinical immunohematology facility.This provides the student an opportunity for the practice of skills previously learned and for the acquisition of new procedural skills. The development of interpersonal skills and the transition from student to professional are emphasized. Prerequisites: MLT 2525, 2525L; corequisite: MLT 2930.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 and 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 microtomy, 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: MET 1010. Laboratory fee. (2 hr. lab)

MET3702
General Meteorology **3 credits**
This course will provide students with the knowledge of atmospheric structure and composition; weather phenomena and systems; the physics of atmospheric processes; global climate and climate change. Corequisite: MET3702L. (3 hr. lecture)

MET3702L
General Meteorology Laboratory **3 credits**
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)

Midwifery

MDW1000C
Midwifery Sciences **8 credits**
An introduction to the basic principles of midwifery with emphasis on basic health care skills, laboratory and diagnostic testing, pharmacology and counseling skills for the Midwife in practice. Prerequisite: Program selection; corequisites: MDW 1820, 2220. (5 hr. lecture; 6 hr. lab)

MDW1100C
Antepartum **9 credits**
Further development of midwifery skills including: patient's preparation for conception, hygiene of pregnancy, prenatal examination procedures, nutritional assessment and culture-specific counseling, with an emphasis on preventive strategies. Prerequisites: MDW 1000C, 1820, 2220; corequisite: MDW 1822. Laboratory fee. (7 hr. lecture; 4 hr. lab)

MDW1820
Midwifery Clinic 1 **2 credits**
Students are closely supervised as they observe maternity services provided in clinical settings by licensed Midwives and other maternity care givers. C-orequisites: MDW 1000C, 2220. (8 hr. clinic)

MDW1822
Midwifery Clinic 2 **3 credits**
Emphasis on the clinical application of skills and theory presented in MDW 1100C. Corequisite: MDW 1100C. (9 hr. clinic)

MDW1910L
Clinic Lab Seminar 1 **1 credit**
A guided group discussion to review the student's clinical experience. Format will include formal case presentation using the problem-solving process to elicit the student's critical thinking in the clinical practicum. Prerequisite: MDW 2111C, 2824; corequisite: MDW 2200C, 2826. (2 hr. lab)

MDW1912L
Midwifery Clinic Lab Seminar 2 **1 credit**
A guided group discussion to review the student's clinical experience. Format will include formal case presentation to elicit the student's critical thinking in the clinical practicum. Prerequisites: MDW 1910L, 2200C, 2826; corequisites: MDW 2211, 2215, 2828. (2 hr. lab)

MDW2111C
The Intrapartum and Post Partum **5 credits**
The physiology, mechanism of normal labor, delivery and the postnatal period. Identification and management of complications. Neonatal assessment and management. Care of the well woman through menopause. Professional issues in midwifery practice. Prerequisites: MDW 1100C, 1822; corequisite: MDW 2824. Laboratory fee. (3 hr. lecture; 4 hr. lab)

MDW2200C
Gynecology Women's Health and Family Planning **3 credits**
Care of the well woman through menopause will include history and physical exams, methods of contraception, infertility, unplanned or unwanted pregnancy, human sexuality and STDs. Prerequisites: MDW 1910L, 2826. (1 hr. lecture; 2 hr. lab)

MDW2211
Obstetrics and Medical Management **1 credit**
Students will learn primary midwifery management, referral and consultation, common obstetric complications and professional responsibilities, prenatal and postpartum care to at-risk women with physician collaboration. Corequisites: MDW 1912L, 2215, 2828. (1 hr. lecture)

MDW2215
Professional Issues in Midwifery Practice **2 credits**
This course explores career preparation, opportunities and trends, and the accompanying legal, ethical and professional expectations. Corequisites: MDW 1912L, 2211, 2828. (2 hr. lecture)

MDW2220
Applied Pharmacology **2 credits**
The student will learn the use, actions and effects of drugs, management of anaphylactic shock. Emphasis on benefits and risks plus alternatives methods of healing. Prrequisites: MDW 1000C, 1820. (2 hr. lecture)

MDW2824
Midwifery Clinic Practice 3 **3 credits**
This course focuses on development of intrapartum and postpartum knowledge and skills in a supervised clinical setting in which the student will assist in client care during labor, delivery and the postnatal period. Prerequisite: MDW 2111C. (12 hr. clinic)

MDW2826
Midwifery Clinic 4 **8 credits**
Student will provide prenatal, intrapartum and postpartum client care in a clinical setting under supervision of a Florida licensed preceptor. Corequisites: MDW 1910L, 2200C. (32 hr. clinic)

MDW2828
Midwifery Clinic 5 **8 credits**
Student will provide client care under supervised preceptorship in a clinical site. Upon completion, the student will have provided primary care to 50 women and their babies during pregnancy, labor, delivery and the postpartum. Prerequisites: MDW 1912L, 2211, 2215. (24 hr. clinic)

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. The 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-the AFROTC four year program, the AFROTC two year program and the one year college program (degree granting Nursing students only). Depending on the program chosen, attendance at either a four-week, five-week or seven-week summer field-training course will be required. AFROTC cadets will receive junior officer training, career orientation, and learn about how the Air Force operates. Travel to and from the base and where field training occurs

is paid for by the Air Force. The end product of the AFROTC program is to produce 2nd Lieutenants in the Air Force upon graduation. For more information, contact Captain Miller at (305) 284-2871.

1. 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.

2. Students who graduate from MDC are eligible to apply for selection into the AFROTC advanced course at any 4-year college or university offering these two years of the AFROTC program. The Two-year AFROTC program is comprised of a five-week field training course at an Air Force base during the summer prior to entry and the above two-year advanced course. It is available for students with two years of undergraduate/ graduate studies remaining.

ENROLLMENT

There is no military obligation to sign up for AFROTC. To take classes students must be U.S. citizens or resident alien, 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 2-mile timed run, and pass an Air Force 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 an allowance for books plus a non-taxable $250 - $350 stipend each month during the school year. Some scholarships provide full college tuition others begin at $15, 000 per year and may be extended to 80% of tuition (cumulative G.P.A. taken into consideration). In selected academic areas, scholarships may be extended to meet a 5-year degree program recognized by a college. The one-year program is for students preparing for occupations for which the Air Force has a special need. Two to four-year scholarships are for students pursuing degrees in certain fields of engineering, science, and math. Plus, there is a $3,000 scholarship available to juniors and seniors who have completed field training, regardless of your major. A number of scholarships are also available to students enrolled in certain non-technical degree programs such as: business administration, accounting, economics, and management. We also offer scholarships for careers in the medical field.

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 $35,000 per year. Free medical and dental care, 30 days paid annual vacation 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 the role today's Air Force plays in the defense of our nation, the role they can fill in today's Air Force, and finally, what the Air Force can offer the student today and later, should they choose the Air Force as a profession after AFROTC.

AFR1111
Introduction to the United States Air Force – Part 3 Semester Basic A ir 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, the role today's Air Force plays in the defense of our nation, the role the student can fill in today's Air Force, and finally what the Air Force offers them both today and later, should they choose the Air Force as a profession after AFROTC.

AFR2131
Introduction to the United States Air Force - Part2 **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.

Army ROTC (MIS)

The Army Reserve Officer Training Corps is a college elective that is designed to teach and instill the leadership skills necessary to become officers in the active Army, National Guard, or Army Reserves. Students who complete the ROTC curriculum and earn their Bachelor degree will in most undergraduate majors offered by local universities, be commissioned as second lieutenants. Army ROTC classes are taught on the Florida International University campus (SW 8th Street).

ENROLLMENT

Freshman and sophomore students may sign-up for the MIS 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 $16,000 annually toward tuition, $450 annually for books, and $250 to $350 monthly directly to the student. For more information, contact the Enrollment and Scholarship Officer at (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 $250 to $350 monthly. Once commissioned, active duty Second Lieutenants earn a starting salary averaging $34,000 annually, have 30 days paid vacation annually, are entitled to further education benefits, and free medical/dental care.

MSL1001
First Year
Basic Army ROTC First Year **2 credits**
Introduction to Army organizations, military customs, basic marching drills, map reading

and land navigation techniques, drown-proofing, rappelling, river-crossing techniques and physical fitness. Physical fitness training and laboratory required.

MSL1002
First Year
Basic Army ROTC First Year **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
Basic Army ROTC
Second Year **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
Basic Army ROTC
Second Year **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

MUC1201
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)

MUC1202
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: MKV 1111. (3 hrs. 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)

MUC2311
Electronic Music 1 **3 credits**
This course is designed to provide students with hands-on experience of sampling, analysis, synthesis, resynthesis procedures, advanced digital composition and arranging. Prerequisite: MUM 2623C or permission of instructor. Special fee. (2 hr. lecture; 2 hr. lab)

MUC2312
Electronic Music 2 **3 credits**
This course is designed to provide music students further study in electronic music synthesis and sound design in musical composition. Emphasis will be placed on the use of computer software voice editing tools in both learning and exploring synthesis and voice architectures. (3 hrs. per week)

MUE1430
Voice Techniques **1 credit**
Class instruction designed to provide basic performance and teaching skills in voice or instruments from each area. (2 hrs. 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 hrs. 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 hrs. 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 hrs. 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 hrs. per week)

MUH2017
Contemporary
Jazz People **3 credits**
An in-depth study of selected contemporary jazz artists and their musical contributions, including the distinct styles of jazz which have been influential in the development of this American art form. (3 hr. lecture)

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. Special fee. (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. (3 hr. lecture)

MUL2500
Survey of
Music History 3 **3 credits**
A survey of the great symphonies from the end of the 17th century to the present. Full scores will be examined and outstanding recorded performances will be heard in their entirety. Prerequisite: MUH 2112. (3 hr. lecture)

MUL2661
Survey of
Music History 4 **3 credits**
A survey of the great operas form the Baroque Period to the present. Full scores will be studied and outstanding recorded performances will be seen and heard in their entirety. Prerequisite: MUL 2500. (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 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: 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 hrs. 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, 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. Special fee. (2 hr. lab)

MUM2603
Basic Audio Writing Laboratory **2 credits**
This course covers soldering and wiring of audio cables, the use of basic electronic instruments. This course includes construction of electronic projects. (4 hr. lab)

MUM2604
Multi-Track Mixdown Techniques **1 credit**
This course deals with the application of signal processing gear to multi-track master recording mixdown 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, mixdown 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, mixdown editing and audio production. Prerequisites: MUM 2600, 2600L, 2605. (1 hr. lecture)

MUM2607
Multi-Track Production Techniques 3 **1 credit**
Multi-track production technique offers students with a background in multi-track recording an opportunity to sharpen their skills in recording, mixdown editing and audio production. Prerequisites: MUM 2600, 2600L, 2605, 2606. (1 hr. lecture)

MUM2623C
MIDI Electronic Music 1 **2-3 variable 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 variable 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 mixdown to 2- track stereo mastering machines including 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, songwriting, 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 (wordprocessing), 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 PageMill (web page development). Students will create their own web site, useful for promotion and networking in their own Music Business enterprise. Students will present projects in class. Special fee. Prerequisite: MUM 2703. (6 hr. lab)

MUM2945
Music Business 5 - Internship **3 credits**
Music Business students will gain music industry experience in an internship which offers a varied, practical and challenging learning experience. The internship will require a minimum of 20 hours per week of work, for on-the-job training, and will be supervised by a sponsor from the company and the coordinator of the Music Business program. Prerequisites: MUM 2702, 2703, 2704 and/or departmental approval. (3 hr. lecture)

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 of documentation of learning acquired as reported by student and employer. All students must contact the Co-operative 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 variable 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 variable 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 hrs. 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 hrs. 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 hrs. per week)

MUN1420
Chamber Music, Woodwind Ensemble **1-3 variable 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 hrs. per week)

MUN1430
Chamber Music, Brass Ensemble **1-3 variable 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 hrs. per week)

MUN1440
Percussion Ensemble **1-3 variable 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 hrs. per week)

MUN1460
Chamber Music, Strings and Mixed Ensemble **1-3 variable 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 hrs. per week)

MUN1480
Guitar Ensemble **1-3 variable 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 hrs. per week)

MUN1710
Jazz Workshop **1-3 variable 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 hrs. 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 variable credits**
An in-depth performance experience including classical and popular choral literature. Extensive public performance schedule provides professional training. Prerequisite: permission of instructor. May be repeated for credit. (7.5 hr. lab)

MUN2410
String Ensemble **2-3 variable 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 hrs. per week)

MUN2711
Jazz Ensemble **2-3 variable 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 one to four 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 variable 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 variable 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 variable 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)

MUS1810
Movement Techniques
for Singers 1 credit
Singers will explore a variety of metric and rhythmic patterns kinesthetically while vocalizing. The various qualities of musical language will be explored through movement and gesture. Students will isolate different body parts and coordinate these in multi-rhythmic choreography. May be repeated for credit. (1 hr. lecture)

MUS1935
Piano Seminar 1-3 variable 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 hrs. per week)

MUS2334
Basic Multi-Track Tape
Recording and
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
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
Basic Theory
Laboratory 1-3 variable credits
The development of basic aural skills through sightsinging and ear training exercises. Corequisite: MUT 1001. (2-6 hrs. per week)

MUT1111
Theory 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 for 1111 or passing score on departmental placement exam; MUT 1111 for 1112; corequisites: MUT 1241-1242. (3 hr. lecture)

MUT1112
Theory 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 for 1111 or passing score on departmental placement exam; MUT 1111 for 1112; corequisites: MUT 1241-1242. (3 hr. lecture)

MUT1241
Sightsinging and
Ear Training 1 Year
1-2 variable 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 hrs. per week)

MUT1242
Sightsinging and
Ear Training 2 Year 1-2 variable 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 hrs. per week)

MUT1271
Music Theory
and Ear Training 1 3 credits
The purpose of this course is to develop the student's ability to recognize and understand the basic materials and processes of music. This is an accelerated course in the fundamentals of music. Training is provided in the visual and aural recognition of rhythms, scales, intervals and triad qualities. Rhythmic and melodic dictation and sightsinging develop the student's aural skills. Basic keyboard training is also provided. Music listening skills and knowledge of the styles of various historical periods are also covered. (3 hr. lecture)

MUT2116
Theory 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 for 2116; MUT 2116 for 2117; corequisites: MUT 2246, 2247. (3 hr. lecture)

MUT2117
Theory 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 for 2116; MUT 2116 for 2117; corequisites: MUT 2246, 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 hrs. per week)

MUT2239
Jazz Keyboard
Harmony 2 1 credit
Experience with extended and altered harmonic progression. Will include harmonic analysis and bitonal structures. Prerequisite: MUT 2238; corequisite: MUT 2352. (2 hrs. per week)

MUT2246
Sightsinging and
Ear Training 1 1-2 variable 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 hrs. per week)

MUT2247
Sightsinging and
Ear Training 2 1-2 variable 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 hrs. per week)

MUT2272
Music Theory
and 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)

MUT2276
Music Theory
and Ear Training 3 3 credits
This course is a continuation of PAVAC Music Theory 1 & 2. Emphasis is placed on simple binary and ternary forms and sonata-allegro form. Analysis and use of more complex harmonies including extended chords, augmented chords, and borrowed chords is emphasized. A hands-on approach is used with students performing exercises at the keyboard and on their own instruments. Original composition is expected from all students. Extensive ear-training and sightsinging work is included in the course. (3 hr. lecture)

MUT2277
Music Theory
and Ear Training 4 3 credits
This course is a continuation of Music Theory 1, 2, and 3. It is intended for students at an advanced level. Emphasis is placed on understanding of formal organization in works from the 16th through 20th centuries. Contemporary compositional devices are studied through analysis, composition, sightsinging, and at the keyboard. Students will learn the basics of conducting techniques. (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 hrs. 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 hrs. 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 hrs. 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 hrs. per week)

Music – Applied

Principal Instrument each, 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 each, 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 hrs. 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 **each, 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 hrs. 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 radiopharmacology, radiopharmaceutical chemistry, characterization of radiopharmaceuticals, localization and FDA approval process. Prerequisites: CHM 1033, 1033L (2 hr. Lab)

NMT1300
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 performace of area surveys and wipe tests, the proper decontamination procedures, the disposal of radioactive waste procedures and personnel monitoring of radiation exposure. Corequisites: NMT1002L, NMT1750. (2 hr. lecture)

NMT1750
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, 1300. (2 hr. lecture)

NMT2040
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, and patient and clinician satisfaction. Prerequisites: NMT2533, 2400; corequisites: NMT 2751, 2573, 2814C. (2 hr. lecture)

NMT2400
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 1300, 1750; corequisites: NMT 2533, 2613, 2804C. (2 hr. lecture)

NMT2533
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 1300, 1750, and PHY1004; corequisites: NMT 2613, NMT2400, NMT2804C. (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 2533, 2613; corequisites: NMT 1750, 2040, 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: NMT2533, 2400, 2804C. (2 hr. lecture)

NMT2751
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 1750, 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 environment. 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 compentencies 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 1750, 2751, 2804C, 2814C; corequisites: NMT 2940 (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 1300, 2533, 2613, 2573; corequisites: 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 0001, PPE 1005. Corequisites: 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 experience and education to apply the nursing process. The emphasis is on health-promoting activities to meet patient needs in a variety of settings including inpatient 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, BSC2086L, CHM1033, 1033L, ENC1101, HSC0001, 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, CHM 1033, 1033L, ENC1101, HSC0001 and PHI2604; corequisites: NUR 1142, 1213C and PPE1005. (3 hr. lecture)

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)

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, HSC0001, PHI2604; corequisites: NUR1025, 1025C, 1060C, 1142. (6 hr. clinical 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 0001, PHI 2604; corequisites:NUR 1025, 1025L, 1142. (2 hr. lecture)

NUR1141
Nursing Math
and 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 1210, 1210L, and 1213C. (2 hr. lecture)

NUR1142
Introduction to
Nursing Math and
Pharmacology **1 credit**
This course introduces basic concepts of medications including history, drug nomenclature, sources of drug information, federal 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: BSC 2085, 2085L, 2086, 2086L, CHM 1033, 1033L, ENC 1101, HSC 0001, and PHI 2604; corequisites: NUR 1025, 1025C, 1025L, 1060C. (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 1210, 1210L, 1213C. (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, 1210, 1210L. (.5 hr. lecture; 1 hr. lab)

NUR2211
Advanced Medical-Surgical Nursing **3 credits**
This course explores the medical surgical nursing care of clients with complex alterations in health. Advanced concepts in medical-surgical nursing 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: NUR2310, 2310L, 2420, 2420L 2520, 2520L, 2610L; corequisites: NUR 2211, 2810L. (3 hr. lecture)

NUR2212L
Advanced Medical-Surgical Nursing Clinical **3 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. Corequisites: NUR 2211. (9 hr. Clinical Lab)

NUR2310
Pediatric Nursing **2 credits**
This course provides a family-centered approach to the nursing care of pediatric clients and their families. The course will focus on the nurse's role in meeting the short and long term needs of the pediatric client, family, and community through preventive, therapeutic and palliative care, with recognition of the multicultural aspects of client needs. Prerequisites: NUR 1141, 1210, 1210L, 1213C; corequisites: NUR 2310L, 2420, 2420L, 2520, 2520L, 2610L. (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. With recognition for cultural diversity, the course focuses on the nurse's role in implementing care to the pediatric client, family and community through preventive, therapeutic and palliative measures. Prerequisites: NUR 1141, 1210, 1210L, 1213C; corequisites: NUR 2310, 2420, 2420L, 2520, 2520L, 2610L. (3 hr. clinical lab)

NUR2420
Obstetrical Nursing **2 credits**
This course provides a family-centered approach to the nursing care of obstetrical clients and their families. It involves assessment of the pregnant client, the implementation of caring behaviors for the laboring client, teaching and learning to support the postpartum client, managing care of the newborn and collaboration of care for the high risk client. Prerequisites: NUR 1141, 1210, 1210L, 1213C; corequisites: NUR 2310, 2310L, 2420L, 2520, 2520L, 2610L. (2 hr. lecture)

NUR2420L
Obstetrical Nursing Clinical Lab **1 credit**
This course provides an introduction to obstetrical nursing practice. It allows the students to apply the nursing process to the care of clients in selected obstetrical clinical settings. Prerequisites: NUR 1141, 1210, 1210L, 1213C; corequisites: NUR 2310, 2310L, 2420, 2520, 2520L, 2610L. (3 hr. lab)

NUR2520
Psychiatric Nursing **2 credits**
This course provides the student with a theoretical base for providing nursing care to clients with moderate to severe deficits in their mental health. Prerequisites: NUR 1141, 1210, 1210L, 1213C; corequisite: NUR 2310, 2310L, 2420, 2420L, 2520L, 2610L. (2 hr. lecture)

NUR2520L
Psychiatric Nursing Clinical Lab **2 credits**
This course provides the student opportunities to apply concepts of psychiatric 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 mental health. Prerequisites: NUR 1141, 1210, 1210L, 1213C; corequisites: NUR 2310, 2310L, 2420, 2420L, 2520, 2620L. (6 hr. clinical lab)

NUR2680L
Community Health Nursing Lab **1 credit**
This laboratory course assists the student to apply knowledge of community resources to the care of childbearing/childrearing families. There is special emphasis on the understanding of cultural influences on health practices and beliefs within the family. Prerequisites: NUR 1141, 1210, 1210L, 1213C; corequisites: NUR 2310, 2310L, 2420, 2420L, 2520. (3 hr. lab)

NUR2810C
Professional Nursing Leadership **4-5 variable credits**
This course provides the student with the theoretical and clinical knowledge necessary for actualization of the role of the registered professional nurse, with emphasis on delegation and supervision. Corequisites: NUR 2211, 2211L. (2 hr. lecture; 9 hr. lab)

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 Nutrition **3 credits**
Introduction to the nutrients found in foods; the body systems which process the nutrients; energy balance, consumer concerns such as food additives, food-borne illnesses and nutrition labeling; and the nutritional requirements in each state of the life cycle. Application of basic concepts from the sciences of biology, microbiology, physiology and chemistry to the study of human nutrition and the concepts of nutrition to the planning of healthful, balanced and adequate diets. Pre/corequisite: PSC 1515. Laboratory fee. (3 hr. lecture)

HUN1201L
Essential of Nutrition Laboratory **1 credit**
A laboratory course which accompanies HUN 1201. The course covers fundamental techniques used in the measurement of food quantities, nutrient contents of foods and serum content of vital nutrients. Laboratory fee. (2 hr. lab)

Oceanography

OCE1001
Introduction to Oceanography **3 credits**
The oceans, their nature and extent. The causes and effects of waves and current, biology of sealife, 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)

OCE3014
Survey of Oceanography **3 credits**
This course explores the ocean's origin, physical properties, salinity, temperature, sound, radiative properties, heat budget and climatic controls, tides, wind-driven motion, monsoon circulation, el Nino 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: OCE 3014L. (3 hr. lecture)

OCE3014L
Survey of Oceanography Laboratory **1 credit**
A laboratory course designed to give students hands-on knowledge of specific concepts discussed in OCE 3014. (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 pre-test, 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, memoranda, reports, tables with special features and miscellaneous documents such as itineraries, news releases and agendas. Prrequisite: 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. Crequisites: 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 and simple applications using a popular word processing program. In addition, the 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 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)

OST1931
Workshop **1 credit**
This one-credit workshop offers students in the Office Administration program the opportunity to learn the concepts, terminology and basic functions of an office software program. 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. 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. 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% 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 transriptionist. 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% 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. Prerequisite: OST 2224 (Machine Shorthand 4). Students entering this course should have earned a minimum of a "C" grade in Machine Shorthand 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% 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-voice 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% 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)

OST2251
Legal Dictation and Transcription 3 credits
The purpose of this course is to develop the skills in spelling legal terms, taking dictation and transcribing legal material. Prerequisite: OST 2602. 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, HSC 2531. Special fee. (3 hr. lecture)

OST2311
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 2311L. (3 hr. lecture)

OST2311L
Spreadsheet Applications for Business Laboratory 1 credit
Emphasis is on the use and practices of utilizing a spreadsheet 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)

OST2335
Business Writing 3 credits
Covers the procedures for writing effective business letters and memoranda, 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)

OST2388
Certified Professional Secretary Exam Preparation Part 2 **3 credits**
Preparation for the Accounting (Part IV), Communication Applications (Part V) and Business Law (Part II) portions of the Certified Professional Secretary Examination. One credit will be awarded for each part completed. Prerequisite: Permission of department chairperson. May be repeated for credit. A.S. degree credit only. (3 hr. lecture)

OST2402
Office Procedures 2 **3 credits**
This course provides training in office procedures and operations, human relations 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 activites 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 and 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**
This 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)

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 pre-set lab hours. The students will be able to practice speed and accuracy drills, as well as complete class problem assignments, computer software application problems, business English assignments, machine transcription assignments, business writing assignments, and office procedures assignments. Corequisite: Any OST course. Special fee. (2 hr. lab)

OST2940
Internship/Practicum **3 credits**
This course will provide work experience on the job in a business environment under the supervision of a professional. A faculty member oversees student progress and the faculty member and supervisor evaluate the performance of the student. The student works a minimum of 15 hours a week for an entire semester. Prerequisite: A minimum of 40 credit hours earned in the Office Technology program with a "C" grade or better in all major courses. (3 hr. lecture)

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 emphasis given to 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 2203. 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 and 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 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 and 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, 2023. Special fee. (3 hr. lecture)

PLA2600
Wills, Trusts, and Estates **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 timekeeping 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)

PLA2936
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)

PLA2998
Legal Assisting Internship **1-3 variable credits**
Prerequisite: Permission of the Program Director.

Philosophy and Logic

PHI1100
Introduction to Logic **3 credits**
The basic principles of valid reasoning, including practice in the application of various techniques of analysis. (3 hr. lecture)

PHI2010
Introduction to Philosophy **3 credits**
An in-depth analysis of some of the major perennial philosophical problems as exemplified in the thought of several important philosophers. (3 hr. lecture)

PHI2070
Introduction to Eastern Philosophy **3 credits**
Philosophical thought in the East, both ancient and modern. Hinduism, Buddhism, Taoism, Confucianism and other major viewpoints will be considered as approaches to philosophy. (3 hr. lecture)

PHI2600
Ethics **3 credits**
Principles and concepts to determine what actions are right and what ends are good, including a rigorous examination of major ethical theories. The emphasis is on the comparison and contrast of the views of various ethical philosophers. (3 hr. lecture)

PHI2604
Critical Thinking/Ethics **3 credits**
The course develops skills in critical thinking by examining various topics in professional ethics. Students will study methods of effective reasoning, reflect critically upon their own values and ethical standards, develop a philosophical understanding of the nature of work and formulate a professional code of conduct. Students will also critically examine ethical issues that arise in the workplace, such as affirmative action, sexual harassment, employee privacy and age discrimination. Prerequisite: ENC 1101. (3 hr. lecture)

PHM2300
Political Philosophy **3 credits**
A critical analysis of important political theories and problems, including an examination and comparison of the writings of some major political philosophers. Provides insight into the basic philosophical concepts which underlie political societies in order to better understand and evaluate the policies and practices of present political societies. (3 hr. lecture)

Photography

PGY2110C
Color Photography 1
3-4 variable 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)

PGY2210
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 the fashion industry are studied. An awareness of mood, make-up and dramatic impact is 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 a 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 variable credits**
Fundamentals of black and white photography as an art medium with emphasis on composition, design and processing. Students will supply their own camera, film and paper. Prerequisites: ART 1203C, 1300C, or equivalent. Laboratory fee. (1-2 hr. lecture; 4 hr. lab)

PGY2410C
Intermediate
Photography **3-4 variable 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 and continued development of aesthetics. Corequisite: PGY 2401C. Laboratory fee. (1-2 hr. lecture; 4 hr. lab)

PGY2470
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 variable credits**
The production of an 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)

PGY2940
Photography Internship **4 credits**
Graduating students will have the opportunity to meet and work with commercial photographers in the South Florida area. Students will report on their progress and show finished work at critique sessions. (1-2 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 and Wellness for Life **3 credits**
The role of exercise, diet/nutrition, stress and physical activity in relation to total well being. Current developments in the health area and lab assessments of the student's current health status are emphasized. Individualized exercise protocols based on these assessments are recommended. 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)

HLP1087
Health Analysis/
Improvement 2 **1-3 variable credits**
Health Analysis/Improvement 2 (Wellness Program) is an in-depth and advanced extension of HLP 1081. This course includes a more individualized approach to the role of exercise and nutrition in relationship to developing a personal wellness program. Using advanced lab assessments, the students' health and fitness levels are evaluated and progress of their personal exercise prescriptions is monitored. Prerequisite: HLP 1081. (1 hr. lecture; 4 hr. lab)

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 in 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)

PEP2131
Principles of
Resistance/Weight Training **2 credits**
Develops and analyzes the scientific principles of conducting safe exercise training and behavioral change in teaching resistance weight training with an emphasis on Nautilus. Prerequisites: HLP 1081, PEM 1131, PET 2303, PET 2303L. (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 Co-operative Education Office to obtain registration approval. (3 hr. lecture)

PET2303
Scientific Principles
of Exercise **3 credits**
Designed to provide students preparing for a career in developing, implementing and supervising a variety of exercise programs.The course emphasizes the anatomical, physiological and kinesiological principles involved in exercise and training. Corequisite: PET 2303L. A.S. degree credit only. (3 hr. lecture)

PET2303L
Scientific Principles
of Exercise Laboratory **1 credit**
Selected laboratory experiments designed to complement PET 2503. Corequisite: PET 2303. A.S. degree credit only. (2 hr. lab)

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)

PET2940
Wellness Programs
Internship **3 credits**
Designed for STO Health Fitness Technician Majors under supervision, to gain on-the-job experience in conducting safe and sound wellness instruction for individuals of varying ages and fitness levels. Students will attend the four training sessions and work as a volunteer in the Wellness center for nine hours per week during the semester. Pre/corequisites: HSC 2400, HUN 1201, PET 2303, 2303L. A.S. degree credit only. (1 hr. lecture; 4 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 Co-operative Education Office to obtain registration approval. (3 hr. lecture)

Physical Therapist Assistant

PHT1102
Anatomy for
the Physical Therapist **2 credits**
Regional description of the musculoskeletal landmarks utilized in implementing and documenting assessment, and treatment procedures in physical therapy. (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. Corequisite: PHT 1201L. (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, whirpool and gait training. Corequisite: PHT 1201. Laboratory fee. (2 hr. lab)

PHT1211
Disabilities and
Therapeutic Procedures 1 **2 credits**
Cause and effect factors associated with selected orthopedic and neuromuscular disabilities. Prerequisites: BSC 2085, 2085L, PHT 1211L. (2 hr. lecture)

PHT1211L
Disabilities and Therapeutic
Procedures 1 Lab **1 credit**
Laboratory practice of basic technical skills relating to electrohydrotherapy, therapeutic exercise and patient care procedures. Corequisite: PHT 1211. 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 Co-operative 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: 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. Corequisite: PHT 2120. 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 11201 1201L, 1102, 1211, 1211L, 2120, 2120L, 2224, 2224L, 2801; corequisites: PHT 2701, 2701L, 2810, 2931. (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: PHT 2120, 2220L. (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. Corequisite: PHT 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. corequisite: PHT 2701L. (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. Corequisite: PHT 2701. Laboratory fee. (4 hr. lab)

PHT2801
Clinical Practice 1 **4 credits**
Beginning clinical experiences in supervised patient care activities in a variety of clinical facilities including general hospitals and physical therapy clinics. Corequisites: PHT 2120, 2224, 2224L. (12 hr. clinic)

PHT2810
Clinical Practice 2 **5 credits**
Intermediate clinical experiences in selected patient care activities under the supervision of a licensed physical therapist. Prerequisite: PHT 2801; corequisites: PHT 2701, 2701L, 2931. (15 hr. clinic)

PHT2820
Clinical Practice 3 **7 credits**
Advanced clinical experiences in patient care activities under the direct supervision of a licensed physical therapist. Prerequisite: PHT 2810. (21 hr. clinic)

PHT2931
Seminar **3 credits**
Recognition of the expected current competency levels, and ethical and legal responsibilities of the physical therapist assistant in the health care system. Prerequisite: Permission of department chairperson. 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 Co-operative Education Office to obtain registration approval. (3 hr. lecture)

Physician Assistant

PAS1800C
Physical Diagnosis 1 **2 credits**
A course which provides 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 2013, 2013L, PAS 1800C, 1812, 1831, 1823, 1822C, 1813. (1.5 hr. lecture; 1.5 hr. lab)

PAS1810C
Surgical Problems
and 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, and their diagnosis and treatment. Laboratory components of this course will include learning fundamental techniques necessary in preoperative and postoperative care, including nasogastric intubation, central venous line placement, arterial and venous punctures and sterile techniques. Prerequisites: PAS 1801C, 1821, 1811, 1830, 1824. (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 preventive medicine are included. Prerequisites: MCB 2013, 2013L, PAS 1800C, 1812, 1831, 1823, 1822C, 1813. (5 hr. lecture)

PAS1812
Behavioral and 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, preventive 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 1028, 1029. 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, 1821, 1811, 1830, 1824. (5 hr. lecture)

PAS1821
Behavioral and 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, 1831, 1823, 1822C, 1813. (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 2013, 2013L, PAS 1800C, PAS 1812, 1831, 1823, 1822C, 1813. (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: PAS 1800C, 1812, 1831, 1823, 1822C, 1813. (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**
This 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 1821, 1820, 1830, 1810C. (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 in 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. Emphasis 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 1009, 1020, 1026, 1200C. (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)

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)

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: PHY 1004L 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 2015 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 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) **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) 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 orginal projects using the available technology. Prerequisites: PHY 2049, 2049L, 3042C. (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 realativity; 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 3105. 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, PHY 3042C; corequisite: PHY 3125. (2 hr. lab)

PHY3504C
Thermodynamics
and Waves **4 credits**
This one-semester course will provide students with a deep understanding of fundamental topics of Classical Thermodynamics and Mechanical Waves. It also includes an introduction to Statistical Mechanics and Fourier Analysis, providing a sound foundation for their comprehension. Content includes heat engines, oscillations, transverse waves on a string, and sound waves in cylindrical pipes. This course includes a lab component, which focuses on enhancing concepts in Thermodynamics and Waves. (4 hr. lecture)

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 PHY2048, 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, noninertial 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, MAP 2302. (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 and
Physical Optics **3 credits**
This course will provide students with a deep understanding of optics with an emphasis on the classical models of the propagation of light waves, optical instruments and a review of the electromagnetic theory of light. It will also include modern topics, such as holography, the laser and non-linear optics. About two thirds of the class time will be devoted to basic theory, descriptive models and problem-solving. The other third will be dedicated to experiments and computer simulations. Prerequisites: PHY 2049, PHY 3513, MAP2302. (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)

PSC1121L
General Education
Physical Science Laboratory **1 credit**
A laboratory course designed to accompany PSC1121 in the study of the major concepts and principles from each of the following areas: physics, chemistry and astronomy. This course is designed primarily for elementary and middle school education majors. (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 Co-operative 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 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 European unification. 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 Co-operative 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. It examines the ways in which we differ as they pertain to shaping personal awareness, understanding and skills that will allow more effective interaction with diverse populations, ages, groups and lifestyles. This course gives students the opportunity to think through and value human diversity, and 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's 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)

POT2014
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)

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 the behavior disorders. (3 hr. lecture)

CLP2001
Basic Human Development **2-3 variable 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. 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 is 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 indentification, 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 narcotics 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 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)

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)

PSY2949
Co-op Work
Experience 2: 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 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)

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 variable 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)

SOP2991
Introduction to
Women's Studies **3 credits**
This course emphasizes the role of gender and social class in understanding the female experience, drawing on psychological, sociological, literary, historical and philosophical perspectives. Contemporary issues and problems that influence the role of women today are explored. (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. (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. (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. Corequisites: RAT 1021, 1123, 1211, 1614, 1804L. (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 1001, 1061, 1211, 1614, 1655, 1804. (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. Corequisites: RAT 1001, 1021, 1614, 1804L. (1 hr. lecture)

RAT1242
Clinical Oncology
and 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 1242, 2241, 2618. (2 hr. lecture)

RAT1657
Radiation Protection/Quality
Assurance **1 credit**
This course is designed 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. (1 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 HSC0001 as well as the competencies achieved in RTE1000 will be included. (6 hr. Clinic)

RAT1804L
Clinic 1 **2 credits**
Orientation to 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. Corequisites: RAT 1001, 1021, 1211, 1614. (18 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; corequisites: RAT 1242, 1619, 2241, 2618. (24 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, 2086, 2086L. (1 hr. lecture)

RAT2022
Principles and 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 1242, 1619, 1655, 1814, 2241, 1618. (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 1242, 1619, 2022, 2618. (2 hr. lecture)

RAT2243
Clinical Oncology and Neoplasms **2 credits**
A continuation of Medical Oncology and Pathology 1. Prerequisite: RAT 1242; corequisites: RAT 1824L. (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 1242, 1619, 1814L, 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: RAT 2022. (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 1801L, 1804L, 1814L, 1824L. (18 hr. Clinic)

Radiologic Technology

RTE1000
Orientation to Radiologic Technology **2 credits**
Introduction to the role of the technologist in a Radiology Department as a member of the health care team. Ethnics, basic hospital and medical terminology and principles of radiation protection are included. Corequisites: RTE 1418, 1503, 1503L 1804. (2 hr. lecture)

RTE1002
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 1418, 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 pictoral archiving and communications systems (PACs), digital imaging and fusion imaging. Prerequisites: RTE 1418, RTE 1613, RTE 2457; Corequisite: RTE 2854. (1 hr. lecture)

RTE2061
American Registry of Radiologic Technologists Exam Review **2 credits**
An in-depth review for the American Registry of Radiologic Technology (ARRT) certification examination in Radiography. Emphasis is placed on the five test sections currently being utilized by the ARRT. Prerequisite: Eligibility for ARRT exam. A.S. degree credit only. (32 hr. lab)

RTE2385
Radiation Biology **2 credits**
The biological effects of the interaction of ionizing radiation with living matter. Prerequisite: RTE 1000; 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. (2 hr. lecture)

RTE2563
Radiographic Positioning 3 **2 credits**
Radiographic procedures which utilize contrast media, sterile techniques, and/or specialized equipment and accessories. Prerequisite: RTE 1824; 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 paranasal 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

REA1105
College Reading 1 **3 credits**
This course is an introduction to college-level reading. Students will demonstrate college-level literal and critical comprehension, vocabulary and study skills using a variety of reading materials. Special fee. (3 hr. lecture)

REA1125
Reading Skills Review **1-3 variable 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

REA0001
College Preparatory Reading 1 **4 credits**
REA 0001 is a college preparatory reading course which builds vocabulary skills, literal and critical comprehension skills and successful reading strategies. Laboratory required. Prerequisite: Placement by Scholastic Assessment Test (SAT) Verbal subtest score; American College Testing (ACT) Reading subtest score; or Computerized Placement Test (CPT) Reading subtest score. (4 hr. lecture)

REA0002
College Preparatory Reading 2 **4 credits**
REA 0002 is a college preparatory reading course which builds vocabulary skills, literal and critical comprehension skills, and successful reading strategies. Laboratory required. Prerequisites: Placement by Scholastic Assessment Test (SAT) Verbal subtest score; American College Testing (ACT) Reading subtest score; Computerized Placement Test (CPT) Reading subtest score; or successful completion of REA 0001. (4 hr. lecture)

REA0003
College Preparatory Reading 3 **4 credits**
The Reading Lab provides intensive tutorial assistance for basic to advanced level students. This encompasses word recognition, pronunciation, reading rate and technical reading. A tutorial study lab is available to assist with any college level course work area. Special Sections for Learning Disabled Students available. College preparatory, may not be used to satisfy graduation requirements. (1.5-9 clock hrs.)

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)

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)

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 3309. (3 hr. lecture) Meets the guidelines of the 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)

RED4519
Diagnosis and Instructional Intervention in Reading **3 credits**
This course introduces formal and informal methods and materials used to identify reading strengths and weaknesses of students. Topics include assessments of all aspects of reading, including comprehension, word recognition, phonics and cognitive strategies. The main emphasis is diagnosis of reading problems, administration of assessments, evaluation of results and planning instructional interventions to remediate reading difficulties. Addresses Council for Exceptional Children's Content Standards for all Beginning Special Education Teachers. A minimum of 20 hours of structured field experience is required. Prerequisite: RED 3309 (3 hr. 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)

REE2041
Real Estate Brokerage (P&P 2) **5 credits**
The techniques of operating a real estate business from the management side. Includes a thorough study of the appraisal process, financing and real estate investment analyses. Fulfills the Florida Real Estate Commission's educational requirement to apply for the broker's state exam. $5.00 test fee. Prerequisite: Valid real estate license and active salesperson experience for six months. (5 hr. lecture)

REE2085
Post-Licensure Education for Salespersons **3 credits**
This 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)

REE2180
Real Estate Appraisal 1 **4 credits**
An introduction to the appraisal process and the different approaches, methods and techniques used to determine the value of various types of property. Emphasis will be on residential and investment property valuation. Prerequisite: REE 2040 or possession of a valid real estate salesperson license. (4 hr. lecture)

REE2181
Real Estate Appraisal 2 **4 credits**
This course is designed to enable the student to perform state-certified real estate appraisals on income-producing property. This course will satisfy state requirements and will prepare the student to sit for the Certified Real Estate Appraiser Course State exams. (4 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 wraparound 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 source 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)

REL1243
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 before and after the Civil War; and 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

RET1007
Pharmacology for Respiratory Therapy Technicians **1 credit**
Basic principles of the administration of medications including dosage and solutions. The drugs administered by respiratory therapy practitioners are covered in depth, along with an introduction to the general pharmacologic classifications of other drugs that may be administered to pulmonary patients. Corequisites: RET 1484, 2274, 2274L. (1 hr. lecture)

RET1024
Introduction to Respiratory Therapy **2 credits**
Introduction to the field of respiratory therapy including terminology, basic microbiology, basic patient care techniques, cardiopulmonary resuscitation and professional history. Prerequisites: BSC 2085, 2085L, 2086, 2086L, RET 1024L; corequisite: RET 1024L. (2 hr. lecture)

RET1024L
Introduction to Respiratory Therapy Laboratory **1 credit**
Laboratory for RET 1024. Corequisite: RET 1024. Laboratory fee. (2 hr. lab)

RET1273
Respiratory Therapy Technician 3 **2 credits**
Theory and techniques of airway care, manual resuscitators, oxygen analyzers and mechanical ventilation. Prerequisite: RET 2275. Laboratory fee. A.S. degree credit only. (2 hr. lab)

RET2264
Advanced Modalities and Monitoring **2 credits**
A concentrated course relating to critical care invasive and non-invasive monitoring, EKG, alternatives to conventional ventilation and advanced cardiovascular support systems. Prerequisites: RET 2284, 2284L; corequisites: RET 2280, 2834, 2714. (2 hr. lecture)

RET2350
Respiratory Therapy Pharmacology **2 credits**
This course is designed to provide training in the basic principles of the administration of medications including dosage and solutions. The drugs administered by respiratory therapists are covered in-depth, along with an introduction to the general pharmacological classifications of other drugs that may be administered to pulmonary patients. Prerequisites: CHM 1033, RET 1484, 1484L; 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. Prerequisite: RET 1486; corequisite: RET 2414L. (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 Therapy
Pathophysiology 2 **2 credits**
This course is designed with emphasis on specific cardiopulmonary disease: in-depth focus on diagnosis, treatment and post-disease effects related to cardiopulmonary pathologies. Prerequisite: RET 1484; corequisite: RET 2275. (2 hr. lecture)

RET2601
Respiratory Care
Seminar **3 credits**
A concentrated course of study which focuses on problem-based learning using clinical simulations. Areas of study include legal and ethical concerns, home care, extended care, rehabilitation and management. ACLS certification obtained. Prerequisites: RET 2264, 2714, 2280; corequisite: RET 2835. (3 hr. lecture)

RET2714
Pediatric/Neonatal Care **2 credits**
This course is designed to provide training in pediatric and neonatal respiratory care assessment and therapeutic techniques related to critical care. Assessment and therapeutic techniques related to critical care. Prerequisites: RET 2284, 2284L; corequisites: RET 2280, 2834, 2264. (2 hr. lecture)

RET2832
Respiratory Therapy Clinic 1 **1 credit**
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 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. A.S. degree credit only. (3 hr. clinic)

RET2833
Respiratory Therapy
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 Therapy
Clinic 3 **8 credits**
This course is a continuation of RET 2833. Training will be provided in the clinical application of procedures and techniques relating to respiratory critical care. Prerequisites: RET 2284, 2284L; corequisites: RET 2280, 2834, 2714. A.S. degree only. (24 hr. clinic)

Respiratory Therapy Technology

RET1484
Respiratory Therapy Technician
Pathophysiology 1 **2 credits**
In-depth study of pulmonary and cardiovascular anatomy, physiology and pathology. Terminology, disease classification, diagnostic techniques and related physiological concepts such as fluid and electrolyte balance are emphasized. Prerequisites: BSC 2085, 2085L. (2 hr. lecture)

RET1484L
Respiratory Therapy
Pathophysiology
Laboratory 1 **1 credit**
This course is designed to provide training in the basic principles of pulmonary and cardiovascular anatomy, physiology and pathology. Diagnostic techniques and related physiological concepts are emphasized. (2 hr. lab)

RET2008
Respiratory Therapy
Pharmacology **1 credit**
Theory, origin and sources of drugs used in respiratory therapy as well as the effects and conditions influencing their actions. Prerequisites: RET 1007, CHM 1033. (1 hr. lecture)

RET2274
Respiratory Therapy
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 Therapy
Theory Laboratory 1 **1 credit**
Laboratory for RET 2274. Corequisite: RET 2274. Laboratory fee. (2 hr. lab)

RET2275
Respiratory Therapy
Theory 2 **2 credits**
Emphasis on pressure breathing modalities, chest physiotherapy and incentive devices. Prerequisite: RET 2274; corequisites: RET 2275L. (2 hr. lecture)

RET2275L
Respiratory Therapy
Theory Laboratory 2 **1 credit**
Laboratory for RET 2275. Corequisite: RET 2275. Laboratory fee. (2 hr. lab)

RET2280
Critical Respiratory Therapy Care **1 credit**
In-depth study of critical respiratory care covering medical, surgical, pediatric and emergency patients. The coordination of a respiratory care plan and advanced patient monitoring will be emphasized. Corequisite: RET 2835. (1 hr. lecture)

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 Therapy
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 related to their clinical application will be emphasized. A.S. degree credit only. Prerequisite: RET 2834; corequisite: RET 2601. (24 hr. clinic)

RET2836
Clinical Practice 5 **8 credits**
This course is a continuation of Clinical Practice 4. Special emphasis on adult, pediatric and neonatal intensive respiratory care. Prerequisites: RET 2275L. (24 hr. clinic)

Risk Management and Insurance

RMI2804
Wealth Accumulation Planning **3 credits**
The principles of real estate investment are examined including: risk and return; the acquisition, ownership, and disposition of property; principles of loan amortization and depreciation; capital gains, and losses; installment sales; exchanges; cash flow analysis; creative financing and forms of real estate ownership. Other ideas studied center around retirement planning. A.S. degree credit only. (3 hr. lecture)

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 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 one's self as a unique individual who, as part of a 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. (3 hr. lecture)

ISS1935
Social Science Seminar **1-3 variable 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; designed fro 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 variable 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 the scientific search for the 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)

SYG2301
Introduction to Social Research **3 credits**
A general introduction to research methodology in the Social Sciences, paying particular attention to research design, data collection and data analysis. (3 hr. lecture)

SYG2327
Service Learning Applications **3 credits**
Examines service-learning as an educational pedagogy. Presents the pedagogy's underlying philosophy, practices and evaluation. This course provides opportunities to experience service-learning through direct participation in service and guided reflection about those experiences. It is offered primarily to meet recertification requirements for in-service K-12 teachers. (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 1111L, 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 essentials 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 qa 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 and 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. Corequisite: 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. Prrequisite: SON 1141C. (2 hr. lab)

SON1804
Clinic 1 **2 credits**
This is the first in a series of six 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: 1000L. (16 hr. clinic)

SON1814
Clinic 2 **2 credits**
This is the second in a series of six 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 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)

SON2061L
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)

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 catherization 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 ultraoperative brain and spinal cord imaging. Emphasis is placed on normal brain anatomy, congenital 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, hemodynamics 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 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 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 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 and Literature

SPN1000
Elementary Spanish Conversation **3 credits**
A course emphasizing conversational Spanish. Extensive use is made of oral exercises and audio tapes. This course cannot be substituted for SPN 1120 or SPN 1121. Offered through Overseas Study Program. Prerequisite: Permission of department chairperson. (3 hr. lecture)

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)

SPN1031
Spanish for Health Professionals 2 **4 credits**
Spanish 1031 will enable communication with Spanish-speaking patients at an intermediate level.The level of exchange in these emergency situations is typical of circumstances that occur in real life. The course contains different communicative activities from simple to complex to facilitate the student's progression throughout the course. 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 variable 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)

SPN2201
Intermediate Spanish 2 **3 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: SPN 2200. (3 hr. lecture)

SPN2220
Intermediate Spanish 1 **4 credits**
Spanish culture learned through a systematic review of reading and writing skills with emphasis on oral as well as written presentations. Prerequisite: SPN 1121 or equivalent. (4 hr. lecture)

SPN2240
Intermediate Spanish 1 Conversation and 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 and 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)

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

SPC1026
Fundamentals of Speech Communication **3 credits**
SPC 1026 provides students with the oral communications skills necessary for success in personal, professional and educational settings. Study and experiential practice of interpersonal communication, presentational speaking and the group dynamics of communication, allow students to be able to use these skills effectively. This course fulfills 4,000 words of the Gordon Rule requirement. (3 hr. lecture)

SPC2050
Voice and Diction **3 credits**
Effective voice production and articulation, acceptable pronunciation, intonation, rhythm, and phasing, 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 2600 or equivalent. (3 hr. lecture)

SPC2594
Forensic Laboratory **1-3 variable 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)

SPC2600
Introduction to Public Speaking **3 credits**
Improves the basic skills of speaking and listening through classroom exercise, group discussion and public address. Special emphasis is given to the principles of logical organization. (3 hr. lecture)

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 2600. (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)

Speech Pathology and Audiology

SPA1612C
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)

SPA1613C
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 are conducted in ASL. Prerequisite: SPA 1612C. (4 hr. lecture)

SPA1630
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)

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)

SPA2333
Linguistics of American Sign Language **3 credits**
This 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: SPA 2614C. (3 hr. lecture)

SPA2384
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: SPA 1613C. (3 hr. lecture)

SPA2614C
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: SPA 1613C. (4 hr. lecture)

SPA2615C
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: SPA 2614C. (4 hr. lecture)

SPA2616
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: SPA 2614C. (3 hr. lecture)

SPA2626
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: SPA 1612C, 1613C. (3 hr. lecture)

SPA2631
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: SPA 1613C, 1630. (3 hr. lecture)

Statistics

STA2023
Statistical Methods **3 credits**
The student in this course will acquire knowledge in the following topics: Collecting, grouping, and presenting data; measures of central tendency and dispersion; probability; testing hypotheses; confidence intervals, and correlation. Special fee. (3 hr. lecture)

STA2122
Statistical Methods
for the Behavioral and
Social Science **3 credits**
Designed for students majoring in psychology, sociology, social work, education, political science, and journalism; not for students majoring in mathematics, science, or business. Topics include collecting and presenting data; measures of central tendency and variability; probability and the normal curve; sampling techniques; confidence intervals; testing null hypotheses by the Z score, T ratio, and F ratio; nonparametric statistical tests; correlation; applying statistical procedures to research problems in behavioral and social sciences. Prerequisite: Acceptable score on the Algebra Placement Test or equivalent. (3 hr. lecture)

STA3164
Statistical Methods 2 **3 credits**
Topics include tests of variance, analysis of variance, analysis of covariance, regression, correlation, and non-prametric statistics. Prerequisites: MAC 2312 or STA 2023 (3 hr. lecture)

Student Life Skills

SLS1101
College Survival
Seminar **1 credit**
An introduction to the campus, college policies, student services and self-discovery for entering freshmen. (1 hr. lecture)

SLS1125
Student Support
Seminar **3 credits**
This three-credit course is intended for students that have been placed on Academic Warning. It is designed to help students be more successful academically by focusing on performance in a learning environment. This will include social, cultural, psychological and academic aspects of the individual and the role they play in the learning environment. (3 hr. lecture)

SLS1310
Introduction to
Health Careers **3 credits**
An examination of various career fields in the health professions with an assessment made of student interests and career goals relative to the demands of selected health care fields. Emphasis is placed on the role of patient care and on interaction with health care professionals. A.S. degree credit only. (3 hr. lecture)

SLS1401
Psychology of
Career Adjustment **1-6 variable 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 addresses the questions, "who are you?," "where are you going?," "how do you get there?," and "what's out there that fits you?." Special fee. (1-6 hr. lecture)

SLS1502
College Study
Skills **1-3 variable 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 one-credit course is intended for students that place into one college preparatory course. It offers students an introduction to college life and self-discovery leading toward a successful career path. Also, it exposes students to methods and techniques for mastering learning skills. This course will have a mathematics module designated for students that place into a college preparatory mathematics or algebra course. (1 hr. lecture)

SLS1535
Preparing for
Student Success **3 credits**
This three-credit course is designed to assist students in the development and achievement of their academic, vocational and personal goals. The course objectives are organized into four units: I Foundations for Success; II The Learning Environment; III Planning for Academic and Vocational Success and IV Understanding Mathematics for Classroom Success. Academic involvement is an integral part of this course and success is determined by attendance, participation, written assignments, tests and project presentations. (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)

SUR2330C
Photogrammetry 1 **3 credits**
Art and science of obtaining reliable information through the use of photographs. More specifically, its application to surveying and the production of land maps. Includes basic theory, project planning ground control, principles of plotting and preparation of mosaics. Prerequisite: Permission of department chairperson. (2 hr. lecture; 2 hr. lab)

SUR2401C
Land Surveying 1 **3 credits**
The theory and practice of land surveying, subdivision, filing and recording deeds; United States Government survey of public land; Florida laws governing land surveys, descriptions, coordinate systems and professional licensing. Field surveys are performed. Prerequisite: SUR 1101C. (2 hr. lecture; 2 hr. lab)

SUR2403C
Land Surveying 2 **3 credits**
Emphasizes the practice of surveying and the writing of legal descriptions. Areas studied include legal principles of retracement under federal rules, combination of sequence and simultaneous conveyances, locating reversion rights, riparian and littoral owners, state statutes and regulations, standards of practice, field and office guidelines, performing the survey, legal authority and liability of the surveyor. (2 hr. lecture; 2 hr. lab)

Teaching English as a Second Language

TSL3241
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)

TSL3526C
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)

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 ESOL Endorsement. (3 hr. lecture)

Theatre Arts

THE1243
Musical Theatre History **3 credits**
A course for the musical theatre major tracing the evolution of what is essentially an American art form from its inception in minstrel shows and river-boat entertainment to its present status as a major component on the international theater scene. (3 hr. lecture)

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. (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 **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. (2-6 hr. lab)

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, theatre-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, theatre, 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)

TPA1210
Theatre Production 1 **3 credits**
This course is designed to give the student an overview of some aspects of theatre production. The course encompasses scenery construction, scenery painting, prop construction, stage lighting, audio techniques, theatre and stagecraft safety practices and backstage organization. Students will be provided with hands-on experiences with equipment common in technical theatre. Prerequisite: TPA 1210 (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 conferences and conventions, 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 the 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 99 elements of production and computerized 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 technique 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: theatre, 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 graffing and equipment technology. AC and DC electrical current will be studied as it applies to lighting technology with special emphasis on power supplies, cabling electrics, 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: theatre, 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 and safety, fire safety issues and CPR are discussed and practiced. Prerequisite: Permission of department. (2 hr. lecture; 4 hr. lab)

TPA1274
Properties Practicals, 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, practicals, 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 of 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 for special events. Prerequisite: Permission of department. (2 hr. lecture; 2 hr. lab)

TPA1290
Studio Theatre Technical and Lighting **1 credit**
Practical application of theatrical skills in technical support and lighting through participation in studio productions. May be repeated for credit. Prerequisite: THE 1925 or permission of department chairperson. (2 hr. lab)

TPA2211
Theatre Production 2 **3 credits**
Covers costuming, makeup and theatre management. Costuming includes a knowledge of major costume periods, costume building and operation of shop machinery. The planning and creating of makeup designs and training in the management of theatre operations are also emphasized. Prerequisite:TPA 1210. (3 hr. lecture)

TPA2233
Mainstage Production-Costumes and 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 reshow 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 are also practiced. Taking instructions from management, designers, and supervisors, executing clues, and collaborating with other parts of a crew have 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, and 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. (2 hr. lecture; 2 hr. lab)

TPA2291
Mainstage Production-
Technical and 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 variable 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)

TPA2601
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 include: blocking, note-taking, cue-calling and company relation skills. Prerequisites: TPA 1200, 1220. (3 hr. lecture)

TPA2940
Technical Theatre
Occupational Practicum
1-6 variable credits
This course is designed to provide the student with the practical, first hand experience at a professional venue. The student will be supervised jointly by Miami Dade College faculty, and the contracting institution. (2-12 hr. lab)

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 Esemble **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 is 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 TPP 1110. 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 TPP 1110 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)

TPP1313
Studio Theatre-Design
and Directing **1 credit**
The opportunity to design, cast and produce studio presentations for public performance. May be repeated for credit. Prerequisite: THE 1925 or permission of department chairperson. (2 hr. lab)

TPP1560
Dance, Mime
and Movement
for the Theatre 1 **3 credits**
Primary techniques in American jazz, ballet and interpretive dance, and in mime and movement for dramatic application. (2 hr. lecture; 2 hr. lab)

TPP1561
Dance Mime and Movement for the Theatre 2 **3 credits**
Intermediate techniques in American jazz, ballet and interpretative dance, and in mime and movement for dramatic application. (2 hr. lecture; 2 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 method toward 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 Stanlislavsky 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 variable 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 is designed to give actors the practical experience 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)

TPP2310
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)

TPP2314L
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/Beverage 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)

HFT1716
Travel Destinations **3 credits**
A study of worldwide nationalities in terms of geography, economic descriptors and environmental condition. Major attractions of various countries at specific times, including cultural, industrial, historical and artistic displays, are emphasized. Seasonal attractions such as festivals, camping, sports, etc. are specified. A.S. degree credit only. (3 hr. lecture)

HFT1721
Travel Agency Operations **3 credits**
Prepares students for employment opportunities requiring a knowledge of the operation of a travel agency. Students learn basic organization and management principles; staffing; legal aspects; building new sales accounts, and working with the effect of deregulation on the travel industry. (3 hr. lecture)

HFT1724
Travel Selling **3 credits**
A concentration on the behavioral relationship necessary for the successful closing of a sale. Covers personal appearance, verbal skills, attitudinal factors, telephone competence, group presentation capabilities and customer service requirements. (3 hr. lecture)

HFT1725
Airline and Travel Marketing **3 credits**
Combines a study of usable motivational theory as applied to the airline and travel industries with basic market analysis and identification techniques, including identifying primary travel routes and markets, an understanding of the needs and wants of potential customers, and the enterprise's ability to satisfy these perceived needs. Market segmentation, statistically valid market surveying, and the professional marketing management skills required to ensure airline and travel agency market penetration will be stressed. (3 hr. lecture)

HFT1726
Travel Tools
of the Trade **3 credits**
A comprehensive study of the facilities, equipment, and resources required to operate a travel agency. Knowledge in the use of all related reference promotional materials and supporting sales documentation. Student will demonstrate skills in out-of-the-office "tools" to include audiovisual equipment and proper display techniques, proper use of the telephone, alternate communications facilities and office equipment. (3 hr. lecture)

HFT1731
Certified Tour
Guide Field Study **3 credits**
Supervised field experience in the professional tour guide industry. Emphasis will be placed on preparation for work assignment and field experiences. A.S. Degree credit only. (3 hr. lecture)

HFT1794
Psychology of
Leisure Travel **3 credits**
Principles and procedures in understanding travel behavior and motivation. Emphasizes an awareness of travelers' perceptions, personalities, attitudes and other psychological factors. (3 hr. lecture)

HFT1910
Researching a
Destination **2 credits**
Application of research skills to provide the ability of a professional tour guide to research an unfamiliar destination. Emphasis will be on research methods, history, culture and nature. Area specialization is advised. Direct individual study. (2 hr. lecture)

HFT1949
Co-op Work
Experience 1: HFT **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 Co-operative Education Office to obtain registration approval. A.S. degree credit only. (3 hr. lecture)

HFT1950
Narrative Presentations **3 credits**
Communication skills of a professional tour guide. Applications of principles of speech presentation, sightseeing narrative and articulation. A.S. degree credit only. (3 hr. lecture)

HFT2400
Travel Accounting
and Information Systems **3 credits**
Basic bookkeeping procedures, from double entry to the balance sheet and income statement, travel agency commission and sales procedures necessary for compliance with Airline Reporting Conference (ARC) systems accounting will be stressed. (3 hr. lecture)

HFT2700
Introduction to
Tourism **3 credits**
An introduction to the broad fields of travel and tourism. The major topics covered will be tourism components and supply, tourism development and the economic, social and environmental impacts of tourism. (3 hr. lecture)

HFT2702
Airline Tickets
and Tariffs **4 credits**
Topics include skills in airline ticketing, and domestic and international fare construction. Upon completion, the student will demonstrate the skills necessary to schedule flight itineraries, select appropriate airfares and issue all required documents. Prerequisites: AVM 1523, 1524. Special fee. (3 hr. lecture; 2 hr. lab)

HFT2728
Computerized Airline
Reservation System 1 **4 credits**
A hands-on use of the computer terminal (CTR), keyboard and software course. Use of the computer for purpose of establishing reservation data and entering reservation, for ticketing, and for the retrieval of travel data and information. Special fee. (3 hr. lecture; 2 hr. lab)

HFT2729
Computerized Airline
Reservation System 2 **4 credits**
A hands-on use of computer terminal (CRT), keyboard and software course. The student will demonstrate skills in the proficient use of the computer for purposes of creating hotel and rental car reservations, creating "stored fare" records and printing invoice or itinerary options. Topics include advanced ticketing and tariff skills applicable to airline reservation systems. All lecture material and laboratory work will involve Eastern Airlines Systems One reservation computer. Prerequisite: HFT 2728. (3 hr. lecture; 2 hr. lab)

HFT2949
Co-op Work
Experience 2: HFT **3 credits**
This is a course designed to continue training in 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. A.S. degree only. (3 hr. lecture)

Vision Care Technology/ Opticianry

OPT1110
Physical and
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**
Characteristics of unifocal and multifocal lens reference points for proper lens selection to meet visual needs of 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 and
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 and 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 and 2. The improved skills will enhance the students 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
Eyeware 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
Eyeware Fabrication 1 Laboratory **1 credit**
Laboratory for OPT 2420. Corequisite: OPT 2420. Laboratory fee. (2 hr. lab)

OPT2421C
Eyeware 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
Eyeware 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 photodocumentation, 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 Lense
Clinic 2 **1 credit**
Use of the soft contact lens instruments to confirm all the parameters for replacement lenses. 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.

Vocational Credit Courses

Miami Dade College Vocational Certificate programs are geared for immediate job entry. The vocational credit courses are listed in alphabetical order according to prefix and number (or suffix).

Accounting

ACO0011
Bookkeeping 1 **1 credit**
This course is an introduction to the tasks performed by bookkeepers. It progresses from simple record keeping to a more advanced double-entry bookkeeping system. Hands-on experience with keeping transactions involving payroll, sales and cash receipt, purchases and cash payment, and reconciling bank statements and budgeting. Special fee. (30 contact hours)

ACO0101
Accounting 1 **2.5 credits**
This course emphasizes double-entry bookkeeping; methods and principles of recording business transactions; the preparation of various documents used in 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 hours)

ACO0102
Accounting 2 **2.5 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 hours)

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 needs. Special fee. (30 contact hours)

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 needs. Special fee. (30 contact hours)

ACO0511
Microcomputers in
Bookkeeping and Business **2.5 credits**
This course is concerned with the use of microcomputers for accounting applications. It includes the preparation, interpretation and use of microcomputers. It includes the preparation, interpretation and use of microcomputer information in financial decision-making. Other business applications will be explored. Special fee. (75 contact hours)

ACO0751
Income Tax Accounting **2.5 credits**
This course provides the student with an overview of the federal income tax system and 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 hours)

ACO0752
Business Forms **2.5 credits**
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 hours)

ACO0948
Co-op Work
Experience: ACO **1-3 variable 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 Co-Operative Educational Office to obtain registration approval. Special fee. (30-90 contact hours)

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. 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 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 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 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 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 **30.4 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 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 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 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 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 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 **30.4 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 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 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 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 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 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 **30.4 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 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 is 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 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 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 **30.4 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 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.)

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 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.)

BCA0482
Fire Sprinkler
Co-op Summer 1 30.4 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 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.)

BCA0483
Fire Sprinkler 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 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.)

BCA0484
Fire Sprinkler 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 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.)

BCA0485
Fire Sprinkler
Co-op Summer 2 30.4 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 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.)

BCA0486
Fire Sprinkler 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 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.)

BCA0487
Fire Sprinkler 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 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.)

BCA0489
Fire Sprinkler Co-op 7 18.13 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 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.)

BCA0490
Fire Sprinkler 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 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.)

BCA0492
Fire Sprinkler
Co-op Summer 3 30.4 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 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. (912 contact hrs.)

BCA0493
Fire Sprinkler
Co-op Summer 4 30.4 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 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. (912 contact hrs.)

Apprenticeship – HVAC

ACR 0940
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.)

ACR0930
HVAC 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 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.)

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.)

ACR0911
HVAC Co-op
Summer 1 **30.4 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 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. (912 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.)

ACR0912
HVAC Co-op
Summer 2 **30.4 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 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. (912 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.)

ACR00935
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, 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.)

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.)

ACR0913
HVAC Co-op
Summer 3 **30.4 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 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. (912 contact hrs.)

ACR0914
HVAC Co-op
Summer 4 **30.4 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 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. (912 contact hrs.)

Apprenticeship – Sheet Metal

PMT0391
Sheet Metal 1 **2.7 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.)

PMT0392
Sheet Metal 2 **2.7 credits**
This course provides instruction in principles of layout, sheet metal processes and parallel line development. (81 contact hrs.)

PMT0393
Sheet Metal 3 **2.7 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.)

PMT0394
Sheet Metal 4 **2.7 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 is also presented. (81 contact hrs.)

PMT0395
Sheet Metal 5 **2.7 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.)

PMT0396
Sheet Metal 6 **2.7 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.)

PMT0397
Sheet Metal 7 **2.7 credits**
Fourth-year apprentices learn about shop production and organization, including efficient operations and utilization of manpower. Students also learn about the principles of air balance and air distribution systems. (81 contact hrs.)

PMT0398
Sheet Metal 8 **2.7 credits**
This course provides students with knowledge of louvers, dampers, access doors, hoods and ventilators. Students will also learn about fume and exhaust systems design. (81 contact hrs.)

PMT0942
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.)

PMT0943
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.)

PMT0944
Sheet Metal
Co-op Summer 1 30.4 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 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.)

PMT0945
Sheet Metal 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 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.)

PMT0946
Sheet Metal
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 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.)

PMT0947
Sheet Metal
Co-op Summer 2 30.4 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 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.)

PMT0948
Sheet Metal
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 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.)

PMT0949
Sheet Metal
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 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.)

PMT0950
Sheet Metal
Co-op Summer 3 30.4 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 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.)

PMT0951
Sheet Metal
Co-op 7 18.13 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 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.)

PMT0952
Sheet Metal
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 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.)

PMT0953
Sheet Metal
Co-op Summer 4 30.4 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 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

ARV0104
Working Drawings 5 credits
This course will prepare the student to develop multi-view drawing, prepare sectional views, develop drawings containing auxiliary views and sections, as well as applying basic dimensions. Special fee. (150 contact hours)

ARV0303
Building Construction
Estimating 1 3 credits
This course enables the student to do estimates of materials quantities and labor cost in the construction of a small residential type building. Special fee. (90 contact hours)

ARV0304
Building Construction
Estimating 2 3 credits
This course focuses on the estimating of more advanced elements of building and construction analysis of cost of complicated commercial and multi-story building systems. Special fee. (90 contact hours)

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 hours)

ARV0309
History of
Architecture 2.5 credits
This course provides a general survey of architecture beginning with primitive times and reviewing outstanding features of historical architectural design through the 18th century. Special fee. (75 contact hours)

BCV0053
Materials and Methods
of Building Construction 4 credits
This course introduces the basic materials and methods of building construction that the architectural drafter will be working with in the drafting of buildings. This course will provide the information required for other persons entering the building construction industry in various job positions. Special fee. (120 contact hours)

BCV0055
Building Codes 3 credits
This course introduces the student to the organization and interpretation of building codes and the restrictions and limitations these codes place on the construction industry. The South Florida building code provisions will be stressed. Special fee. (90 contact hours)

BCV0057
Building Construction Law 3 credits
This course focuses on the legal aspects of construction contracts and responsibilities of all parties involved in the building field including design professionals, general and subcontractors, material suppliers and owners. Special fee. (90 contact hours)

Banking

BAN0930
Banking for Tellers 1.5 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 hours)

BRC0109
Teller Training 3.5 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 hours)

Business

BUV0210
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 hours)

BUV0215
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 hours)

BUV0302
Customer Service/Business 2.5 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 hours)

BUV0949
Cooperative Education
Work Experience 3-6 variable 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 hours)

SBM0002
Small Business
Management; Introduction 2.5 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 hours)

SBM0003
Principles of Small Business 1 credit
This course covers the principles of business ownership; the benefits, responsibilities and risks. The student will learn the skills and personal characteristics necessary to succeed in small business ownership. Special fee. (30 contact hours)

SBM0104
Time Management 1 credit
This course practices goal setting, priority decision-making, and choosing action steps. It identifies major time management problems, and considers solution of these problems as recommended by time management experts. Special fee. (30 contact hours)

SBM0125
Personal Financial
Businessperson 2.5 credits
This course covers the basic topics of personal finance from the point of view of the businessperson who wishes to maximize economic well-being by effective budgeting, borrowing, banking, investing, insurance coverage and retirement planning. Special fee. (75 contact hours)

SBM0147
Small Business Marketing 1 credit
This course teaches the student the principles and elements of advertising, methods of merchandising and inventory control necessary for the successful operation of a small business. Practice with math concepts used in business is also emphasized. Special fee. (30 contact hours)

Business Law

BUL0240
Business Law 1 2.5 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 hours)

Child Care

HEV0101
Child Care
Teacher Aide 0.33 credits
This course presents an overview of early childhood career options and responsibilities. Students will acquire competence in such areas as observing and recording, ethical behavior, relationships with families, community resources and positive communication techniques. Special fee. (11.10 contact hours)

HEV0102
Child Care
Teacher Aide Application 3 credits
This course provides direct field experience to enable the practical application of concepts and techniques relating to such areas as observing and recording, ethical behavior, relationships with families, community resources and positive communication techniques. (99 contact hours)

HEV0116
Preschool Teacher 2 0.81 credits
This course provides a fundamental understanding of child growth and development principles, environment, developmentally-appropriate curriculum and behavior and guidance specific to preschool children. Special fee. (25 contact hours)

HEV0150
Child Care Worker 1.5 credits
This course covers 10- and 20-hour competencies for the Department of Children and Families and general competencies for initial employment. Students will acquire competence in the state rules and regulations; health, safety, and nutrition; child abuse and neglect; child development, including methods of guidance and communication; anti-bias curriculum, assessment, school/family relationships and age-appropriate activities. Special fee. (40 contact hours)

HEV0152
Child Care Development Specialist Application **4.33 credits**
This course provides direct field experience to enable the practical application of concepts and techniques relating to the professional development and leadership skills necessary for effective communication with staff and parents in a diverse society. (130 contact hours)

HEV0163
Child Care Development Specialist **0.67 credits**
This course focuses on the professional development and leadership skills necessary for effective communication with staff and parents in a diverse society. Special fee. (20 contact hours)

HEV0173
Preschool Teacher Application 1 **2.13 credits**
This course provides field experience to enable the practical application of concepts and techniques relating to teaching and guiding infants and toddlers appropriately. Special fee. (60 contact hours)

HEV0174
Preschool Teacher 1 **0.51 credits**
This course provides a fundamental understanding of child growth and development principles, developmentally-appropriate curriculum and behavior and guidance specific to infants and toddlers. Special fee. (15 contact hours)

HEV0182
Preschool Teacher Application 3 **1.32 credits**
This course provides direct field experience to enable the practical application of concepts and techniques relating to teaching and guiding school age children appropriately. (40 contact hours)

HEV0183
Preschool Teacher Application 2 **5.08 credits**
This course provides direct field experience to enable the practical application of concepts and techniques relating to teaching and guiding preschool children appropriately. (150 contact hours)

HEV0195
Preschool Teacher 3 **0.31 credits**
This course provides a fundamental understanding of child growth and development principles, environment, developmentally-appropriate curriculum and behavior and guidance specific to school age children. (10 contact hours)

Communication Science

COM0101
Communication Skills **1 credit**
This course develops communications skills including listening, speaking (both formal and informal) and writing. The student learns the importance of developing good communication skills and practice methods are used to achieve improvements. Special fee. (30 contact hours)

Computer Science and Related Technologies

CGS0286
Wireless Networking I **2.5 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. (3hr.lecture;2hr lab)

CGS0287
Wireless Networking II **2.5 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 which benefits the novice as well as the experienced network professional. Prerequisites: CGS 0286. Laboratory fee.(3hr.lecture;2hr lab)

CGS0400
Programming in BASIC **2.5 credits**
This is the first programming course using QuickBASIC. Requires no prior knowledge of programming. Students develop their own programs using flowcharts and program shells. Fundamental programming techniques, concepts and commonly used algorithms are covered. Special fee. (75 contact hours)

CGS0405
Advanced "C" Programming **2.5 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 0043. Special fee. (75 contact hours)

CGS0408
Advanced Programming in BASIC **2.5 credits**
This is the second programming course using QuickBASIC with complex concepts, applications, files, design and algorithms. The course emphasizes problem-solving using applications for commercial and business problems encountered by professional programmers. Special fee. (75 contact hours)

CGS0500
Word Processing **1.5 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 a assigned a microcomputer to use during class. No previous computer training or experience is required. Special fee. (45 contact hrs.)

CGS0510
Electronic Spreadsheets with Applications **2.5 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. The content of this course will continually change to keep pace with current technology. Prerequisite: CGV 0010 or equivalent. Special fee. (75 contact hours)

CGS0560
Microcomputer Operating Systems (DOS) **2.5 credits**
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 hours)

CGS0890
Networking Essentials **2.5 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.)

CGS0948
Co-op Work Experience **1-3 variable 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 Co-Operative Education Office to obtain registration approval. Special fee. (30-90 contact hours)

CGV0010
Introduction to Microcomputers **2.5 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 hours)

CGV0241
Microcomputer Software Applications **1 credit**
This course is intended to provide additional time-on-task for students who are attempting to fulfill the requirements of the Business Software Applications Certificate program. The course is individualized to accommodate itself to each student's need. Special fee. (30 contact hours)

CGV0250
Database Applications **2.5 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. The content of this course will continually change to keep pace with current technology. Prerequisite: CGV 0010 or computer experience is required. Special fee. (75 contact hours)

CTS0027
Information Systems Development **2.5 credits**
This course teaches 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 hours)

CTS0030
Operating System Usage/Mini-Computer Management **2.5 credits**
This is an advanced course in the operating system for a mini-computer and the concept of systems software programming. The operation of the mini-computer in a business environment, peripheral equipment on the system and software programming for system control are emphasized. Special fee. (75 contact hours)

CTS0043
Introduction to the "C" Program **2.5 credits**
An introductory course covering the syntax and rules of the "C" language. The topics of program design, variables, output, flow control and functions are included. Students are required to code and execute business applications. Special fee. (75 contact hours)

CTS0046
Microcomputer Assembly Language **2.5 credits**
A second or third level programming course using a macro assembler. Students will learn the basic architecture of a microprocessor, instruction set, and design, code and implement systems-level programs on a microcomputer. Students will develop applications and programs with minimal assistance. Special fee. (75 contact hours)

CTS0065
Database and Applications and Programming **2.5 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, modify and create various reports. The 75 contact hours are comprised of both lecture and laboratory sessions or equivalent knowledge. Prerequisites: CGV 0010 or equivalent. Special fee. (75 contact hours)

CTS0066
Database Programming **2.5 credits**
This is not an introductory course. Basic familiarity with creating and manipulating dBASEIV data files from the dot prompt and control center is a prerequisite. Previous familiarity with frequently used dBASEIV commands, functions and set commands is required. In this course you will create data files and information-tackling procedures for someone else to use. Macros, program models, debugging techniques, networking, runtime modules, template language and advanced business applications are included. Special fee. (75 contact hours)

CTS0080
Supporting Windows Server **2.5 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 hours)

CTS0081
Supporting Windows Professional **2.5 credits**
A study of the terminology, components, design, installation and management of local area networks and a consideration of other data communication equipment. Featured topics: elements of LAN system, LAN standards, design considerations, installation, LAN administration and user operation. Special fee. (75 contact hours)

CTS0091
Implementing a Network Infrastructure **2.5 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 and support remote access to a network. Prerequisite: CTS 0080. Special fee. (75 contact hrs.)

CTS0092
Designing a Network Infrastructure **2.5 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: CEN 0533. Special fee. (75 contact hrs.)

CTS0093
Implementing Directory Services **2.5 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 **2.5 credits**
This course provides students with the knowledge and skills necessary to design a Windows directory services infrastructure in an 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: CEN 0533. Special fee. (75 contact hrs.)

CTS0317
Information Security **2.5 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: CEN 2035. Laboratory fee. (3 hr. lecture; 2 hr. lab)

CTS0547
Infrastructure Security 2.5 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 which begin online. A combination of lectures, demonstration.

Criminal Justice and Related Technologies

CJD0007
Basic Law Enforcement Standards 1 13 credits
This course prepares Law Enforcement candidates for basic job skills as per the Criminal Justice Standards and Training Commission and Department of Education Framework for Law Enforcement. Special fee. (390 contact hours)

CJD0020
Pre-Service Basic Law Enforcement Standards 1 7 credits
This course provides training beyond the minimum required by the Criminal Justice Standards and Training for Law Enforcement certification. Includes fitness and practica for pre-service candidates. (210 contact hours)

CJD0051
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 hours)

CJD0210
State Exam Review for Police Officer Certification 0.53 credits
This course is designed to provide substantive course review of the Criminal Justice Standards and Training basic law enforcement curriculum. Diligent use of review materials in this course will serve as excellent preparation for the FDLE police officer certification exam. This course for SJSA police trainees only. (15.9 Contact Hours)

CJD0254
Medical First Responder 1.6 credits
The First Responder program teaches criminal justice recruits about a variety of medical emergencies with minimal medical supplies. 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. Basic training Criminal Justice personnel only. Special fee. (48 contact hours)

CJD0274
Criminal Justice Weapons for Law Enforcement 2 1.07 credits
This course is a supplement to CJD 0705. Additional time will be spent on lecture material relating to the basic fundamentals of firearms training. More time will also be provided for the student to perform additional relays of the course of fire. In addition, several optional methods of teaching discretionary shooting will be explored such as real-time laser simulations, interactive computer training and live fire discretionary training. For SJSA Basic Law Enforcement Officer trainees only. Special fee. (33 contact hours)

CJD0478
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. The course includes, but is not limited to, 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 hours)

CJD0480
Basic Correctional Probation and Parole Training 1 12 credits
This course prepares entry level correctional probation and parole officers with basic job skills as per Florida Department of Law Enforcement, Criminal Justice Standards and Training, and Department of Education Framework. Topics include criminal law, correctional operations, criminal investigation, and supervision. Program is offered at Institute of Criminal Justice only. Special fee. (360 contact hours)

CJD0481
Basic Correctional Probation and Parole 2 2 credits
Provides instruction beyond the minimum required for Correctional Probation and Parole Officer Certification. Includes practicum, evaluation and competency-based assessments. (60 contact hours)

CJD0482
Basic Correctional Probation and Parole Training 3 4 credits
This course prepares entry-level Correctional Probation and Parole Officers with skills in officer survival and medical emergencies. Students will be able to learn skills in defensive tactics and those skills needed to respond to medical emergencies. Special fee. (120 contact hours)

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. (160 contact hours)

CJD0620
Police Training Practicum 0.7 credits
This course is a culmination of practical exercises designed to evaluate the police trainee's acquisition of knowledge and skills learned throughout the basic training program. The recruit will be expected to perform as a police officer in a series of scenarios which include an in-progress felony, domestic disturbance, crisis situation, vehicle stop and a preliminary investigation. In addition to knowledge of law, police and public safety procedures, a special emphasis will be placed on the use of interpersonal skills. For School of Justice Basic Law Enforcement students only. Special fee. (21 contact hours)

CJD0704
Criminal Justice Defensive Tactics 3.53 credits
The defensive tactics course is designed to teach future officers 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. Special fee. (105 contact hours)

CJD0705
Criminal Justice Weapons 2.13 credits
The firearms course is designed to teach future officers 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 introduced to chemical weapons and their effects as well. Special fee. (63 contact hours)

CJD0723
Vehicle Operations 1.07 credits
This course introduces the student to the physiological and psychological factors affecting vehicle operations. It stresses the importance of vehicle maintenance, environmental conditions affecting driving, and elements of basic driving skills including skids and other causes of accidents. The student will demonstrate hands-on basic driving skills. For School of Justice students only. Special fee. (32 contact hours)

CJD0730
Law Enforcement Legal 3 1.07 credits
This section introduces the students to the laws relating to stop and frisk under Florida State Statutes and case law.The student learns to recognize when to detain a suspect and when a move toward probable cause is necessary. This section also covers traffic laws in addition to weapon laws, burglary and some other procedural matters. For School of Justice students only. (33 contact hours)

CJD0731
Law Enforcement Patrol 2.13 credits
This course is to provide 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. This course will be limited to School of Justice students only. (64 contact hours)

CJD0734
Law Enforcement Investigation 2.13 credits
Provides training to 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. (63 contact hours)

CJD0741
Emergency Preparedness 1.87 credits
This module is dedicated to training Correctional Officers in handling emergency situations in a correctional setting such as fires, hostage situations, riots and disturbances, and hazardous materials, etc. For School of Justice students only. Special fee. (26 contact hours)

CJD0747
State Exam Review for Correctional Officer Certification 0.7 credits
This course is designed to provide substantive course review of the Criminal Justice Standards and Training and 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 School of Justice Correctional Officers only. (21 contact hours)

CJD0750
Interpersonal Skills 2 1.67 credits
This course is a continuation of CJD 0773 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 hours)

CJD0752
Correctional Operations 4.6 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 hours)

CJD0760
Criminal Justice Legal 1 1.53 credits
This section introduces students to basic concepts of Criminal Law. It provides them with legal terms and definitions and generally defines classifications of offenses.This section deals with very few substantive crimes with the exception of bribery and perjury. It primarily addresses Procedural Laws and rules such as Court Rules and Trial Procedures. For School of Justice students only. (45 contact hours)

CJD0761
Criminal Justice Legal 2 1.6 credits
This section is anchored by Constitutional Law and introduces the student to legal concepts such as probable cause, search and seizure concepts, as well as inchoate offenses, i.e., attempt, conspiracies and solicitation. There are more substantive offenses in this section, such as homicide and robbery, and fewer procedural matters, though involuntary admissions procedures and substance abuse services are covered. For School of Justice students only. (48 contact hours)

CJD0762
Criminal Justice Communications 1.87 credits
This course is designed to teach trainees to take statements from victims, witnesses and suspects; write incident and arrest reports; and note-taking skills, such as grammar, spelling, sentence structure, etc., are covered to ensure accuracy, completeness and clarity. For School of Justice students only. (57 contact hours)

CJD0763
Interpersonal Skills 2.2 credits
This course provides 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. (66 contact hours)

CJD0770
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 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)

CJD0771
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)

CJD0772
Criminal Justice Communications 1.4 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)

CJD0773
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 on the inmate population, but also on the Correction Officer. For School of Justice students only. (63 contact hours)

CJD0781
Cross-Over Corrections to Law Enforcement 1.6 credits
This course addresses the objectives in Legal 1 and 2, Interpersonal Skills and Communications from the Law Enforcement program that are not covered in the Correctional Officer program. This course is required by the Florida Department of Law Enforcement as part of the curriculum a Florida correctional officer must have when seeking Law Enforcement Certification. For School of Justice students only. Special fee. (48 contact hours)

CJD0795
Criminal Justice Weapons for Corrections 2 0.27 credits
This course is a supplement to CJD 0705. Additional time will be spent on lecture material relating to the basic fundamentals of firearms training. More time will also be provided for the student to perform additional relays of the course of fire. For School of Justice basic Correctional Officer training only. (9 contact hours)

CJD0800
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 law, laws of arrest and arrest techniques, judgment and indemnifications, courtroom organizations, community relations, employability skills and firearm safety. Special fee. (120 contact hours)

CJK0006
Criminal Justice
Introduction and Law **2.23 credits**
This course includes the basics of law, ethics, professionalism, working the community, the history of the Criminal Justice System in Florida and the Criminal Justice Standards and Training Commission. (67 contact hrs.)

CJK0010
Human Issues **1.67 credits**
This course provides 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 the community. For School of Justice students only. (50 contact hrs.)

CJK0015
Communications **2.57 credits**
This course is designed to teach trainees to take statements from victims, witnesses and suspects; and to write incident and arrest reports. Note-taking skills, such as grammar, spelling, sentence structure, etc., are covered to ensure accuracy, completeness and clarity. For School of Justice students only. (77 contact hrs.)

CJK0020
Law Enforcement
Vehicle Operations **1.6 credits**
This course introduces the student to the physiological and psychological factors affecting vehicle operations. It stresses the importance of vehicle maintenance, environmental conditions affecting driving, and elements of basic driving skills including skids and other causes of accidents. The student will demonstrate hands-on basic driving skills. For School of Justice students only. (48 contact hrs.)

CJK0031
First Aid
for Criminal Justice Officers 1.33 credits
This course prepares criminal justice recruits for a variety of medical emergencies with minimal medical supplies. 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. Basic training for School of Justice students only. (40 contact hrs.)

CJK0040
Firearms **2.67- 2.93 variable credits**
This firearms course is designed to teach future officers 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 introduced to chemical weapons and their effects as well. (88-104 contact hrs.)

CJK0050
Criminal Justice
Defensive Tactics **2.67 credits**
This defensive tactics course is designed to teach future officers 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. (80.1 Contact Hrs.)

CJK0060
Patrol **1.9 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.)

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.)

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 officer's 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 into 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 an investigation report. (40 contact hrs.)

CJK0080
Traffic Stops **2.07 credits**
This module includes the methods and skills for stopping a vehicle for a violation or other lawful reason; infraction; types of criminal violations and their elements; abandoned vehicle handling; procedures for making a felony stop and legal issues regarding traffic stops. (62 contact hrs.)

CJK0085
Traffic Crash
Investigations **1.07 credits**
This course includes instruction on traffic crash investigation; knowledge of common violations resulting in crashes; information-gathering skills; DUI enforcement techniques; identification and handling of evidence; photographing evidence; crash scene management; determining cause of accident; and completion of crash reports and driver exchange forms. (32 contact hrs.)

CJK0090
Tactical Applications **1.8 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.)

CJT0354
Telecommunicator
Basic Training **6.93 credits**
This course provides the basic skills and knowledge necessary to become a Public Safety Telecommunicator. Emphasis is placed on communication skills, first responder, and knowledge of dispatch equipment and terminology, as well as accessing one's ability to work under pressure. Training is scenario-based with practical applications using dispatch equipment. For School of Justice students only. Special fee. (208 contact hours)

CJT0431
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.)

CJT0800
Basic Security
Guard Training - Phase A **1 credit**
This course provides the basic security training required by the State of Florida before an applicant may receive a "D" License as a Security Officer. Special fee. (40 contact hours)

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)

CJT0802
Basic Security
Officer Training - Phase B **0.5 credits**
This is the second part of the state required basic "D" License course. It includes public relations, courtroom procedures, interviewing techniques, fundamentals of personal security, interpersonal communications, professional communications, traffic direction, crowd control and special problems of security. This is required for first renewal of the "D" License. Special fee. (16 contact hours)

CJT0940
Telecommunicator Field
Experience and Professional
Development **1 credit**
This course is a continuation of the basic telecommunicator course and exposes the student to various public safety arenas which utilize telecommunicators. In addition, job-related career enhancement skills such as interviewing techniques and resume writing are explored. School of Justice students only. (30 contact hours)

Elderly and Disabled Care

HEV0813
Comprehensive Assessment **1.5 credits**
This is a 45-hour course, within the Care Management with Elders Gerontology occupational track, designed to develop skills in administering the Comprehensive Assessment form used by state agencies and providers in determining elder care needs. Special fee. (45 contact hours)

HEV0814
Aging Networks **1.5 credits**
This is a 45-hour course designed to introduce aging policy issues and familiarize students with the aging network. Special fee. (45 contact hours)

HEV0835
Field Experience:
Recreational Therapy **1.5 credits**
This is a 45-hour activity designed to apply theoretical concepts in the Recreational Therapy occupational track classroom courses, through field work completed in a multicultural site which provides services to elders. Special fee. (45 contact hours)

HEV0836
Motor Development:
Adult through Aging **1.5 credits**
This is a 45-hour course designed to introduce the concepts of motor development and explore the relationship between motor development health and aging. This course is part of the recreational therapy occupational track. Special fee. (45 contact hours)

Engineering Technology - General

EER0344
Camcorder Repair **2.5 credits**
This course covers the basic concepts and hands-on experience essential to perform troubleshooting and repair of camcorders presently on the market. Special fee. (75 contact hours)

EEV0002
Electronic Circuit Analysis **2.5 credits**
The electronic circuit analysis course prepares electronic technology students to read and understand electronic schematics. Electronic symbols and the operations of most electronic components are covered in this course. Special fee. (75 contact hours)

EEV0402
Compact Disk Player-
Troubleshooting
and Repair **2.5 credits**
The Compact Disk Player Troubleshooting and Repair course prepares electronic technology students in the principles of sound recording and the operation of a complete compact disk recording system. Detailed circuit descriptions, troubleshooting procedures and alignment procedures are to serve as examples of how to overcome malfunctioning CD players. Special fee. (75 contact hours)

EEV0403
Compact C and 8mm
Camcorder Repair **2.5 credits**
The camcorder repair course prepares electronic technology students to troubleshoot and repair camcorders (VHS, Compact C and 8mm). Principles of operation, troubleshooting and repair techniques for camcorders are covered in this course. Special fee. (75 contact hours)

EEV0538
Input/Output Devices 2 **2.5 credits**
The prospective network technician will learn the advanced concepts needed to understand the operations of Input and Output devices. Topics include an in-depth analysis of all input/output devices associated with computer technology. Special fee. (75 contact hours)

EEV0556
Maintenance Troubleshooting
Network Devices 2 **2.5 credits**
The prospective network technician will learn concepts needed to understand and use microcomputer-based test equipment, proper documentation and troubleshooting guidelines. Topics covered will be geared toward networked systems. Special fee. (75 contact hours)

EEV0638
FCC License
Exam Preparation **2.5 credits**
This is an analysis of the principles of radio wave transmission and reception. Various types of transmission are investigated. FCC licenses, laws, operating practices and broadcast station rules are reviewed. Special fee. (75 contact hours)

EEV0700
Input/Output Devices 1 **2.5 credits**
The prospective network technician will learn the concepts needed to understand the basics of Input and Output devices. Topics covered include an introduction to all input/output devices associated with computer technology. Special fee. (75 contact hours)

EEV0701
Maintenance Troubleshooting
Network Devices 1 **2.5 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 hours)

EEV0811
D.C. Analysis **3.2 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 hours)

EEV0812
A.C. Analysis **4.1 credits**
This course will introduce the various types of A.C. circuits and provide hands-on training with these circuits and their power supplies. It will also point out business opportunities in the field. Special fee. (125 contact hours)

EEV0813
Solid State
Components and Circuits **4.2 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. (125 contact hours)

EEV0814
Analog Circuits **5 credits**
This course will introduce the various types of analog circuits and provide hands-on training with these circuits and their devices. Special fee. (150 contact hours)

EEV0815
Digital Fundamentals **5 credits**
This course will introduce the various types of circuits that are operated on digital principles and provide hands-on training with these circuits and their conversion. Special fee. (150 contact hours)

EEV0821
Electronic Fundamentals **2.5 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 hours)

EEV0826
Microprocessor Systems **5 credits**
This course will introduce various memory devices, their circuits, and the peripherals that are associated with such systems. Special fee. (125 contact hours)

EEV0851
Microcomputer Maintenance and Repair 1 **2.5 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 hours)

EEV0852
Microcomputer Maintenance and Repair 2 **2.5 credits**
This course teaches troubleshooting skills to repair microcomputers and printers, with emphasis on hard disk maintenance and repair. Special fee. (75 contact hours)

EEV0856
TV Circuit Analysis **4 credits**
This course introduces the student to electronic TV components, their functioning, troubleshooting and repair. Topics include power supply, picture tube circuits and vertical and horizontal deflection circuits. Special fee. (120 contact hours)

EEV0857
Alarm Systems Fundamentals **2 credits**
This is a hands-on application course that covers basic electrical concepts such as circuits, diagrams, electrical units, resistors, Ohm's Law, measurements and test equipment used for alarm systems installation. Special fee. (60 contact hours)

EEV0858
Alarm System Components **2 credits**
This is a hands-on application course that covers controls, silent alarms and local bells, batteries and power supplies as the components of alarms systems. Practice with each component and variation of systems is discussed. Special fee. (60 contact hours)

EEV0859
Advanced Alarm Systems **2 credits**
This is a hands-on application course that covers intrusion-detection by photoelectric beams, passive infrared detectors, ultrasonic and microwave detectors, proximity and sound detection. A typical service work day and its demands are covered. Special fee. (60 contact hours)

EEV0860
Alarm System Troubleshooting **2 credits**
This is a hands-on application course that covers the more common kinds of trouble encountered in installation and repair of alarm systems. The types of protective loops, seven steps of the troubleshooting method and specific procedures are presented. Special fee. (60 contact hours)

EEV0947
Co-Op Work Experience 2 **1-3 variable 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 Co-Operative Education Office to obtain registration approval. (30-90 contact hours)

EEV0948
Co-op Work Experience: EEV **1-3 variable 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. Prerequisites: Co-Op Departmental approval and completion of EEV 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 Co-Operative Education Office to obtain registration approval. Special fee. (30-90 contact hours)

ETD0081C
Technical Drawing - CAD 1 **4 credits**
This course focuses on drafting orientation, lettering, geometric construction, orthographic projection, pictorial drafting, sections and introduction to computer-aided drafting. Lab time required. Special fee. (120 contact hours)

ETD0082C
Technical Drawing **4 credits**
This course focuses on the dimensioning practice, tolerancing, welding drafting, screw thread drafting and developments. Drafting is accomplished on conventional paper medium and in a CAD environment. Lab time is required. Prerequisite: ETD 0081C. Special fee. (120 contact hours)

ETD0083C
Technical Work Drawing 1 **4 credits**
This is an advanced drafting course with emphasis on skills and techniques and increased use of technical drafting standards and data in the preparation of detailed drawings. Detailed drawing is prepared relating to gears, cams, fasteners and piping. CAD drawing prepared with aid of a plotter. Prerequisite: ETD 0082C. Special fee. (120 contact hours)

ETD0120C
Blueprint Reading 1 **3 credits**
This course introduces reading and interpretation of working drawings of the building construction industry. Its emphasis is on architectural and construction drawings including plans, elevations, details and schedules with an overview of electrical and mechanical plans. Special fee. (90 contact hours)

ETD0121C
Blueprint Reading 2 **3 credits**
This course focuses on reading and interpretation of more complex working drawings of multi-story/commercial type buildings. Special fee. (90 contact hours)

ETD0310C
Introduction to Micro CAD System **3 credits**
This course introduces the student to a micro CAD system- both hardware and software. Students will explore the advantages, and disadvantages of CAD and be exposed to the basic operation of a CAD system. Special fee. (90 contact hours)

ETD0319C
Computer Applications Architecture **5 credits**
This course will be a review of all the program computer applications leading to the presentation of a comprehensive project that contains the tasks that have been included in previous CAD courses. Several more complex applications will be introduced. Special fee. (150 contact hours)

ETD0320C
Advanced CAD Architecture **5 credits**
The student will be prepared to produce advanced computer-aided drawings of maps, civil and construction plans. Tasks required for a CAD student project are included. Special fee. (150 contact hours)

ETD0350C
DIGICAD Workshop **1.5 credits**
This is a hands-on experience course with a sophisticated engineering software program. The participant will learn the commands of the programs and practice with applications that are able to be used in the field of engineering surveying. Special fee. (45 contact hours)

ETD0530C
Architectural Drafting **5 credits**
This course will prepare the students to interpret technical tables, prepare foundation plan and floor plan drawings, as well as elevation drawings with dimensions. Students will prepare a set of working drawings as the final class project. Special fee. (150 contact hours)

ETD0538C
Intermediate CAD Architecture **5 credits**
This course introduces the more sophisticated uses of the microcomputer for production of architectural drawings. More detailed drawings that incorporate reinforcing detail, electrical and electronic drawings and pneumatic/hydraulic drawings will be prepared. Special fee. (150 contact hours)

ETD0542C
Technical Work Drawing 2 **4 credits**
This course focuses on the development of structural detailed working drawings. Involves study of structural shapes, properties and methods of developing connections between members. Reinforced concrete construction covered with emphasis on architectural forming. Prerequisite: ETD 0083C. Lab time is required. Special fee. (120 contact hours)

ETD0543C
Structural Technical Drafting **4 credits**
This course focuses on the development of structural, fabrication and erecting drawings. Involves the study of structural shapes, properties of shapes, methods of presenting field connections and approved drafting production practices. CAD practice required to develop plotted drawings. Lab time required. Special fee. (120 contact hours)

ETD0562C
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 hours)

ETD0614C
Electronic Drafting **3 credits**
This course covers basic graphical communications as applied to the electronic industry. Topics include electronic symbols, schematic drawings, circuit layouts, block diagrams, printed circuits, production drawings and CAD electronic plotting. Lab time required. Special fee. (90 contact hours)

ETV0010
Introduction Drawing 1 **4 credits**
Fundamental principles of standard drafting include lettering, orthographic representation, pictorials and related topics. Required for students who have not had any previous drawing experience or courses, and who do not meet requirements for ETD 0081C. Special fee. (120 contact hours)

Environmental Studies

EVR0014
Introduction to Hazardous Materials and the Environment **2.5 credits**
This course deals with the basic principles for the relationship between man and his environment. Emphasis is placed on an investigation into physical, biological, economic, social and political factors producing ecological changes. Effects of hazardous materials on the environment itself are also studied. Special fee. (75 contact hours)

EVR0031
Basic Environment Compliance **2.5 credits**
This course deals with environmental compliance in South Florida through State, Federal and local programs. Topics include environmental compliance, rules and regulations and enforcements. Field, office, lab and legal procedures provide a holistic approach. Special fee. (75 contact hours)

EVR0232
Introduction to Environmental Air Pollution **2.5 credits**
This course studies the pollution of air due to the combustion of fuel for industrial production, transportation, and generation of electricity for domestic use. Discrete air pollution problems are identified; proper quality assurance/quality control, and regulations associated with air pollution are discussed. Special fee. (75 contact hours)

EVR0624
Basic Infectious and Nuclear Materials **2.5 credits**
This course covers the proper handling and disposal techniques for both infectious (biological) and nuclear (radioactive) materials. Personal hygiene and monitoring are emphasized, in addition to proper selection and use of personal protective equipment. Packaging and shipping are also covered. Special fee. (75 contact hours)

EVR0631
HAZMAT Communications **2.5 credits**
This course explains the worker's right to know and the community's right to know about the hazards of having toxic materials in their environment. Topics include materials safety datasheets, NFPA requirements for labeling and development of written procedures. Special fee. (75 contact hours)

EVR0634
Basic Hazardous Materials Emergency Response **3 credits**
This course teaches the skills needed to develop response tactics in the event of an incident. Hazard analysis, contingency plans and employee training are included. Meets SARA requirement for response training. Special fee. (90 contact hours)

EVR0690
Hazardous Materials Laboratory Analysis **3 credits**
This course presents advanced techniques in instrumental analysis. Atomic absorption, spectrometry, gas chromatography, mass spectrometry, ion chromatography, UV-vis spectrophotometry, titrometry, analytical techniques, computer interfacing and future trends are presented. Special fee. (90 contact hours)

EVR0807
Introduction to Industrial Hazardous Waste **2.5 credits**
This course covers industrial waste and the industries that generate it. Regulation of such waste products, identification of chemicals generated by industry inspection of facilities and state survey and sampling techniques are topics covered. Special fee. (75 contact hours)

EVR0891
Basic Open Flow Channel Measurement **2.5 credits**
Increasing concern for defending the environment from pollution has emphasized the need for flow measurements. Enforcement of water conservation and other regulatory requirements increase the need for dealing with open channel flow problems. Special fee. (75 contact hours)

EVR0893
Identification of Environmental Pollutants **2.5 credits**
This course addresses pollutants associated with and generalized by industrial processes. Emphasis is based on analytical lab procedures used to detect pollutants, common industrial process description details, sample collection, containers and volumes, preservatives and sampling handling. Special fee. (75 contact hours)

Film, Radio, TV Technology

RTT0002
Broadcast News **1.5 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 stylebook applications. The students will write several news stories and a newscast. Special fee. (45 contact hours)

RTT0003
Careers in Video **1 credit**
This course is designed to confirm an overview of the varied possible professional choices in the entertainment field and emphasizes that the video industry is comprised of everchanging business and career opportunities. This course is designed to serve as a practical resource for those looking to enter the video industry. Special fee. (30 contact hours)

RTT0170
Television Graphics Procedures **3 credits**
This course requires the students to participate in the practical use 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 hours)

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 hours)

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 hours)

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 hours)

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 hours)

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 hours)

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 of the AVID non-linear editing system. Prerequisite: RTT 0177. Special fee. (150 contact hours)

RTT0189
TV Film Computer Applications Procedures **3 credits**
Applications of software and computer languages in the television industry. Includes introduction to integrated software for scriptwriting, storyboarding, production scheduling, cost controls, project inventory and computer-generated graphics. Special fee. (90 contact hours)

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 DigiDesign with Pro Tools for audio-only non-linear editing. Prerequisite: RTT 0184. Special fee. (150 contact hours)

RTT0200
Broadcast Communication Survey **1.5 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 hours)

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 or currently employed in these occupations. Special fee. (90 contact hours)

RTT0210
Radio Programming Operations **2.5 credits**
This course provides instruction and practice in the preparation and delivery of various types of radio programming. Knowledge of station organization and procedure is combined with announcing in a manner required of announcer-operators in smaller radio stations. Special fee. (75 contact hours)

RTT0222
Announcing on Radio **2.5 credits**
This course emphasizes 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 hours)

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, reading of logs, 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 hours)

RTT0940
Television Studio Internship 1 **5 credits**
This is a 150-hour activity 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 hours)

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 hours)

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 hours)

Fire Science

FFP0020
Fire-Rescue Minimum Standards Training **13.5 credits**
A course designed to offer basic knowledge and skills as required by the Florida Firefighters Standards Council. The student will be eligible to take the State written and practical test. Special fee. (405 contact hours)

FFP0077
First Responder **1.5 credits**
A training course for students who will provide basic life support to victims of emergencies, to minimize patient discomfort and prevent further injury. This course is a required part of fire fighter training. Special fee. (45 contact hours)

FFP0360
Driver/Engineer **3 credits**
All emergency response organizations must train their equipment operators. This course is designed to qualify the student to operate emergency response vehicles. Prerequisites: Active member of the fire/rescue and three years experience. Special fee. (90 contact hours)

General Business

GEB0008
Entrepreneurship and Private Enterprise System **2.5 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 clock hours)

GEB0211
Effective Communication for Today's Manager **1 credit**
This course provides food store personnel with an overview of communication as a process loaded with concepts and misconceptions. Special fee. (30 contact hours)

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 hours)

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 hours)

GRA0430
Desktop Publishing **4 credits**
Desktop publishing is the production of high quality printed publications using relatively inexpensive equipment: personal computers, desktop scanners and laser printers. This class explores the qualities and abilities of Aldus PageMaker, and industry-standard page layout program. Class lectures are supported with audiovisual presentation and extensive handouts. Lab classes consist of a series of typical page layout jobs. Special fee. (120 contact hours)

GRA0441
Graphic Reproduction Processing **2 credits**
This course provides essential knowledge on the history, processes and career potential in the graphic communications industry. The course will highlight the current methods used in printing to produce all types of printed communication. The course is a prerequisite to any serious student wanting a career in graphic communications, or someone in an industry that needs a refresher course on the fundamentals. Special fee. (60 contact hours)

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. Production is learned through hands-on project assignments. Instruction also will include industry standard typesetting equipment and desktop publishing personal computers and software. Special fee. (120 contact hours)

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 hours)

GRA0452
Halftone Processes for Graphic Arts **4 credits**
A halftone is a reproduction of a continuous tone photograph that has been converted into dots of various sizes so it can be reproduced by any of the major printing processes. The various size dots are so small and numerous that they fool the eye into seeing shades of gray similar to a continuous tone photo. Numerous hands-on projects will cover the use of halftone screens and the manipulation of tones by controlled exposures and development procedures. Prerequisite: GRA 0451. Special fee. (120 contact hours)

GRA0455
Color Reproduction Technology 1 **2 credits**
The theory of how the eye distinguishes color based on its hue, brightness and saturation is fully explained. The theory then is 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. Special fee. (60 contact hours)

GRA0457
Color Electronic Scanning **3 credits**
This course requires Color Reproduction Technology 1 as a prerequisite. The 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 hours)

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 hours)

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 hours)

GRA0462
Graphic Design 3 **4 credits**
This is a practical course in problem-solving for graphic communications. Identity campaigns, logo designs, CD covers, magazine covers and similar tasks will be undertaken with some use of electronic publishing skills in illustrator, freehand and Photoshop. Special fee. (120 contact hours)

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 such as Illustrator, Freehand and Photoshop are utilized. Special fee. (120 contact hours)

GRA0464
Advanced Electronic Imaging **3.5 credits**
This course is designed for the advanced electronic publisher, graphic designer or graphic arts person who wishes to integrate high resolution, Macintosh based, color, electronic pre-press into their page layout programs. Special fee. (105 contact hours)

GRA0465
Digital Graphic Painter **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. Special fee. (120 contact hours)

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 hours)

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 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 hours)

GRA0481
Paper in Graphics **1.5 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 hours)

GRA0482
Graphic Arts Estimating 1 **2 credits**
Estimating is the developing of a price for a print job for the customer before it is actually printed, based on the job's specifications and the print shop's capabilities. All aspects of the printing process are discussed as to the cost of materials and the amount of time to do each of the required procedures. The ability to do basic mathematical problem-solving is required for taking this course. Special fee. (60 contact hours)

GRA0631
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 design. The basics of formal graphic design are covered in creatively professional standards. Special fee. (120 contact hours)

GRA0841
Web Page Design One **4 credits**
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 hours)

GRA0948
Co-Op Work Experience: GRA **1-3 variable 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 Co-operative Education Office to obtain registration approval. Special fee. (30-90 contact hours)

GRV0540
Advanced Electronic Publishing **4 credits**
This is a 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 hours)

Health Information Management

HIM0001
Introduction to Medical Record Science **1 credit**
This course introduces the function of a medical record department and its relationship to other departments within a health care facility. The legal and ethical aspects of the medical record; components of a medical health record; and its proper documentation, purposes, and uses are reviewed. Organization of the medical record profession and identification of its membership are covered.. Corequisite: HSC 0001. Special fee. (30 contact hours)

HIM0012
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.)

HIM0031
Medical Record Transcription 1 **1.5 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 hours)

HIM0031L
Medical Record Transciption Applications 1 **6 credits**
This course is the applications for HIM 0031. Perfection of typing skills and correct use of basic transcription equipment. Prerequisite: HIM 0031. Special fee. (180 contact hours)

HIM0032
Medical Record Transcription 2 **1.5 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 hours)

HIM0032L
Medical Record Transcription Applications 2 **6 credits**
This course is the applications for HIM 0032. Transcription from selected medical specialties. Prerequisite: HIM 0032. Special fee. (60-180 contact hours)

HIM0033
Medical Record Transcription 3 **1-2 variable 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 hours)

HIM0033L
Medical Record Transcription Applications 3 **2-7 variable credits**
This course is the laboratory for HIM 0038. Transcriptions of reports and paraphrasing according to the content of dictation and terminology used in pathology and autopsies. Basic principles of word processing are practiced. A level of speed and accuracy consistent with employment standards is required. Prerequisite: HIM 0038. Special fee. (60-120 contact hours)

HIM0036
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 0031, 0031L, 0032, 0032L, 0039. (150 contact hours)

HIM0220
ICD-9-CM Coding 1 **1 credit**
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 hours)

HIM0220L
ICD-9-CM Coding Applications 1 **1 credit**
This course deals with the application of the basic principles, characteristics and conventions of ICD-9-CM. Special fee. (30 contact hours)

HIM0221
ICD-9-CM Coding 2 1.5 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 hours)

HIM0221L
ICD-9-CM Coding Applications 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 0221. Special fee. (60 contact hours)

HIM0230
ICD-9-CM Coding 3 1.5 credits
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 hours)

HIM0230L
ICD-9-CM Coding Applications 3 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 0221L; corequisite: HIM 0230. Special fee. (60 contact hours)

HIM0253
Current Procedural Terminology (CPT-4) Coding 1.5 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 fee. (45 contact hours)

HIM0271
Computerized Medical Insurance Billing 1.5 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 hours)

HIM0271L
Computerized Medical Insurance Billing Applications 1.5 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 hours)

HIM0274
Health Insurance Claims/Delinquent Claims and Problem Solving 1.5 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 0221, 0221L; corequisites: HIM 0230, 0230L. Special fee. (45 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: HIM0250; corequisites: HIM0271, HIM0271L. Special fee. (60 contact hrs.)

HIM0433
Basic Principles of Disease 2 credits
Disease, its etiology, and pathophysiological nature. Medical complications and manifestations of diseased states also included. Special fee. (60 contact hours)

HIM0450
Human Anatomy & Physiology Information Management 2 credits
The structure and functions of the systems of the human body are emphasized. Includes the dynamics of physiology, terminology and physiological relationships of the systems. Special fee. (60 contact hours)

HIM0470
Basic Medical Terminology 1 credit
Analysis of medical terms to build a vocabulary in medical terminology. The student will learn a word building systems of word roots, suffixes and prefixes. Special fee. (30 contact hours)

HIM0471
Clinical Terminology 1.5 credits
Expansion of medical vocabulary to include: cancer medicine, pharmacology, radiology and nuclear medicine, psychiatry, procedures and medical complications. Special fee. (45 contact hours)

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 hours)

HIM0817
Coding Clinical Practice 3.8 credits
The student is assigned to a health care facility for a supervised clinical experience in all aspects of coding and DRG assignment. There is a special emphasis on employability skills and safety/security procedures. Prerequisites: HIM 0220, 0221, 0230, 0250, 0271. Special fee. (120 contact hours)

Health Science

HSC0003
Introduction to Health Care 3 credits
An introduction to the health care environment, this course focuses 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.)

HSC0995
Introduction to Health Care 3 credits
To be used only for Procedure 110:815736.

Management

MAN0019
Introduction to Management 2.5 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 hours)

MAN0040
Effective Supervision 2.5 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 hours)

MAN0220
Small Business Management 1 credit
This course assists the participant to analyze and clarify the goal of establishing a business, reviews suggestions from successful owners and helps develop a specific plan for a business. Special fee. (30 contact hours)

MNA0102
The Managerial Woman 1 credit
This course identifies the behaviors and attitudes that help or hinder women managers, observes successful models, and reviews suggestions for increasing success as a woman manager. Special fee. (30 contact hours)

MNA0103
Human Relations at Work 2.5 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 hours)

MNA0170
Human Relations Skills 1 credit
This course is meant to develop skills for dealing more effectively with other people in working relationships. Special fee. (30 contact hours)

MNA0347
Effective Supervision Skills 1 credit
This course identifies major responsibilities of a supervisor, lists the skills essential for carrying out these responsibilities, evaluates personal strengths and weaknesses and demonstrates effective techniques for supervision. Special fee. (30 contact hours)

MNA0762
Success/Goal Achievement 1 credit
This course teaches how to set and motivate oneself to goals, practice using visualization and positive self-talk, and recognize characteristics of successful persons. Special fee. (30 contact hours)

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 hours)

Marketing

MKA0011
Survey of Marketing 2.5 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. Hands-on application is the focus of the course. Special fee. (75 contact hours)

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 reviews suggestions from experts in salesmanship. Special fee. (30 contact hours)

MKA0046
Customer Service 1 credit
This course identifies problems with customer service that are common to many organizations, teaches the participant to deal with difficult customers, and develop strategies for improving customer service in one's organization. Special fee. (30 contact hours)

MKA0061
Strategic Marketing for the Small Business 2.5 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 hours)

MKA0240
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 hours)

MKA0241
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 hours)

MKA0242
Export/Import Marketing Introduction 2.5 credits
This is a practical course designed to assist the participant enter the field of importing and exporting in a metropolitan area that is one of the major international marketing areas in the world. A step-by-step application of procedures is followed. Special fee. (75 contact hours)

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 hours)

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 an import/export company, how to identify the market, find the supplies and customers, and buy and sell overseas. Special fee. (30 contact hours)

MKA0246
Import/Export 2 1 credit
This is a continuation of Import/Export 1. Previous topics will be reviewed and the course 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 making a profit. Special fee. (30 contact hours)

MKA0516
Public Relations 2.5 credits
The goal of this Public Relations course 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 insight into business problem analysis, and will receive practical experience in both written and oral communication skills. Special fee. (75 contact hours)

MKA0623
Food Store Sanitation 1.5 credits
This course provides food store personnel with the 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 hours)

MKA0624
Food Store Security 1 credit
This course provides food store personnel with the comprehensive procedures and policies to follow to prevent employee theft, vendor theft, front-end losses, shoplifting, robberies, and burglaries, thereby increasing store profits. Special fee. (30 contact hours)

MKA0625
Food Merchandising: Principles and Practices 1.5 credits
This course provides food store personnel with a comprehensive understanding of the basic principles underlying food merchandising practices in the United States. Special fee. (45 contact hours)

MKA0626
Grocery Management Operations 1 credit
This course provides practical instruction in essential management areas such as inventory management, merchandising and operating for profit, as well presenting a product breakdown of the grocery department into dairy, frozen foods, general merchandise, and health and beauty aide areas. Special fee. (30 contact hours)

MKA0948
Co-op Work Experience: MKA 1-3 variable 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 MKA 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 Co-Op Education Office to obtain registration approval. Special fee. (30-90 contact hours)

Massage Therapy

MSS0156
Anatomy and Physiology for Massage Therapy **2.5 credits**
This course will focus on the relationship between the anatomical and physiological effects of massage therapy on the body. Students will focus on the structure of organs, muscles, bones and tissues. Primary focus will center on the musculo-skeletal system and innervations. Special fee. (75 contact hrs.)

MSS0156L
Anatomy and Physiology for Massage Therapy Laboratory **2.5 credits**
This course will examine the practical application and physiological effects of massage therapy on the body. Students will focus on the structure of organs, muscles, bones and tissues. Primary focus will center on the musculo-skeletal systems and innervations as well as clinical pathologies related to 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 discussed. Special fee. (30 contact hrs.)

MSS0250L
Introduction to Massage Therapy Laboratory **6 credits**
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 **3.5 credits**
A 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 **1.5 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 **13.5 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 a current state license and be a graduate of an approved Associate Degree program.This course requires special permission and students must contact the program coordinator for registration approval. (240 contact hrs.)

Mathematics – Vocational Level

MTB0102
Business Mathematics **2.5 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 hours)

MTB0310
Technical Mathematics **3 credits**
This course focuses on the orientation and usage of the scientific calculator as used in all fields of engineering technology. The student works with a wide range of application mathematics which is utilized in engineering, building construction and architecture offices locally and nationally. Skill is developed in each operation of the calculator by lab and homework practice. Special fee. (90 contact hours)

Medical Assisting

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 hours)

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 hours)

MEA0231
Anatomy and Physiology and Medical Terminology **2.3 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 hours)

MEA0234
Pathophysiology and 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 hours)

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 hours)

MEA0251
Electrocardiography/
Emergency Procedures **2 credits**
The nature and purpose of the electrocardiograph (EKG); maintenance of equipment and materials needed; preparation of the patient and the procedure for taking and mounting the EKG record and monitoring the record for abnormal or erratic tracings. The maintenance of emergency equipment and implementing emergency procedures in the medical office. Special fee. (60 contact hours)

MEA0254
Physician Office
Laboratory Procedures **2 credits**
Theoretical concepts of specimen collection and processing. This course focuses on the fundamentals of diagnostic tests, including urinalysis, basic office bacteriology, hematology and blood chemistry. The principles of aseptic techniques, infection control and safety procedures are discussed. Compliance with quality assurance practices is emphasized. (60 contact hours)

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 hours)

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 Regulation (DPR) for the Basic Radiographer License. Special fee. (90 contact hours)

MEA0274
Medical Coding/Insurance
Billing with Collections **4 credits**
Processing health insurance claims using procedural and diagnostic coding. The student will learn and apply current government regulations affecting third-party reimbursement. Billing, electronic claims transmission and collection systems are emphasized. Special fee. (120 contact hours)

MEA0322
Office Management and
Professional Issues for
the Medical Assistant **3 credits**
Office management procedures, including planning and organization; financial and medical record keeping procedures; billing and collection; processing insurance claims using procedural and diagnostic coding. Legal and ethical responsibilities; credentialing and other professional issues of Medical Assisting. Special fee. (90 contact hours)

MEA0343
Computers in
the Medical Office **3 credits**
The application of computer concepts to medical office practices. The student will keyboard documents using word processing software. Emphasis will be on operating transcription equipment and transcribing medical records. The student will also be introduced to electronic spreadsheet and database applications. Special fee. (90 contact hours)

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 a physician's office or clinics where they will provide direct patient care under the guidance of an experienced Medical Assistant. Special fee. (90 contact hours)

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 hours)

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 offices 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 hours)

Medical Laboratory Technology

MLT0049
Phlebotomy Practicum **1.5 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 hours)

MLV0040
Phlebotomy Theory **0.5 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 hours)

MLV0041
Practical Aspects
of Phlebotomy **0.5 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 hours)

Office Technology

OCA0312
Advanced Word
Processing **2.5 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 hours)

OFT0712
Introduction to Word
Processing/Transcription **2.5 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 speller 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 hours)

OTA0101
Beginning Keyboarding **1.5 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 hours)

OTA0102
Keyboarding 1 **2.5 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 hours)

OTA0105
Advanced Keyboarding 2.5 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 hours)

OTA0171
Machine Transcription 2.5 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 hours)

OTA0301
Oral Business Communication 0-1 variable credits
This course provides training for effective listening, verbal and non-verbal communication skills in a business environment. Special fee. (15-45 contact hrs.)

OTA0303
Writing for Business 2.5 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 hours)

OTA0311
Basic Business English 2-2 variable 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 hours)

OTA0421
Office Procedures 1 2.5 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 hours)

OTA0426
Office Procedures 2 2.5 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 hours)

OTA0470
Legal Office Procedures 2.5 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 hours)

OTA0472
Legal Secretarial Preparation 2 1 credit
This course provides the basis necessary to fulfill the requirements in the different environments of the Legal Secretary field. The differences and similarities in the litigation/ court process as it relates to criminal procedures, estate planning, real estate and business organizations will be discussed. Special fee. (30 contact hours)

OTA0753
Legal Secretary Preparation 1 credit
This course is designed to introduce the Federal and Florida court system, civil litigation, criminal and family law.Terminology and legal concepts are enhanced by the use of hypothetical cases. Last class includes information on obtaining employment and interviewing in the legal environment. Special fee. (30 contact hours)

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 hours)

OTA0906
Open Word processing Lab 1 credit
This is an individualized applications activity directed to enable the participant to build skills in the WordPerfect program to the level of 45 wpm. Special fee. (30 contact hours)

OTA0932
Professional Legal Secretary (PLS) Review 1.5 credits
This is a 45-hour overview of the PLS Examination utilizing group discussions, formal instruction and materials created specifically 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 hours)

Pharmacy Technician

PTN0003
Introduction to Pharmacy Technician Practice 3 credits
This course is an orientation to the overall functions and services of a hospital pharmacy. Special fee. (90 contact hours)

PTN0004
Pharmacy Technician Applications 3 credits
This course focuses on the development of skills relating to the specific, technical, manipulative and clerical tasks involved with the preparation and distribution of medications under the supervision of Licensed Pharmacists. Special fee. (90 contact hours)

PTN0006
Medical Terminology and Calculations for Pharmacy Technicians 3 credits
This course involves medical abbreviations, terminology, chemical symbols, formulas, and incompatibilities. Also included are defining systems of measurement, converting from one system to another and calculating pharmocology problems. (90 Contact Hours)

PTN0021
Drug Classifications for Pharmacy Technicians 3 credits
This course covers the aseptic techniques, parenteral administration and intravenous admixture systems. A survey of drug classifications is included. Special fee. (90 contact hours)

PTN0041
Pharmacy Technician Field Experience 9 credits
This course covers clinical hospital training to develop the student's knowledge and skills on the job. Special fee. (270 contact hours)

PTN0049
Retail Store Field Experience 6 credits
This course covers the clinical field experiences in a retail establishment. Special fee. (180 contact hours)

PTN0910
Advanced Topics in Pharmacy 2.5 credits
This course focuses on the recent pharmaceutical products in cardiovascular drugs, central nervous system drugs, chemotherapeutic preparations and parenteral nutrition therapy. Special fee. (60 contact hours)

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 hours)

Practical Nursing

PRN0001C
Basic Patient Care **2.5 credits**
This course focuses on obtaining basic patient care skills, including vital signs, documentation, activities of daily living, body mechanics and basic medical terminology. Students will have experiences in the classroom, campus lab and long-term care facility. Prerequisite: HSC 0001. Special fee. (75 contact hours)

PRN0003C
Practical Nursing 1 – Fundamentals **9 credits**
This course assists the Practical Nursing student to develop fundamental knowledge and technical skill as a basis for nursing care, with emphasis on the role and scope of practical nursing, growth and development, administration of medication and mental health concepts. Pre/corequisite: PRN 0001C, PRN 0022. Special fee. (270 contact hours)

PRN0022
Body Structure and Function **2 credits**
This course provides fundamental knowledge of the normal body's structure and function. Special emphasis is placed on anatomy and physiology of the body as a whole. Major body organs are discussed in relation to tissue, cells, metabolism and homeostatic processes. Prrequisites: PRN 0001C. Special fee.. (60 contact hours)

PRN0120C
Practical Nursing 4 – Maternal/Child **5 credits**
This course provides the Practical Nursing student with the basic knowledge and skills to care for the multi-cultural family throughout pregnancy, labor, delivery and post-partum. The student will be introduced to physiological and psychosocial needs of the child, concepts of wellness and disease and Erickson's Stages of Development. Prerequisite: PRN 0203C. (150 contact hours)

PRN0202C
Practical Nursing 2 - Medical/Surgical **12 credits**
This course assists the Practical Nursing student to develop knowledge and skills in the care of patients across the lifespan. Selected Medical/Surgical conditions related to the body systems will be covered. The student will provide care to patients in acute, subacute, and long-term care settings. Special fee. (360 contact hours)

PRN0203C
Practical Nursing 3 – Medical/Surgical **7.5 credits**
This course introduces the Practical Nursing student to selected diseases of the brain and spinal cord; peripheral vascular system; gall bladder, liver and pancreas; lungs and kidneys. Students will provide care to stable patients in acute and sub-acute care settings, reinforcing the role and scope of the practical nurse. (225 contact hours)

PRN0933C
Practical Nursing 5 – Transition to Graduate **4 credits**
This course focuses on the transition of the student to graduate, aspects of licensure and employment and career opportunities for the Practical Nurse. Major emphasis is placed on the role and function of the practical nurse within the organization and as a member of the health care team. Prerequisite: PRN 0120C, 0203C. Special fee. (120 contact hours)

Real Estate

REE0030
Principles and Practices 1 **2.1 credits**
Principles and 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 salesperson and client, salesperson and customer and salesperson 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 hours)

REE0031
45-Hour Post-Licensure for Salesman **1.5 credits**
A state required course that all newly licensed salespersons must complete within two years of obtaining their initial sales license. This survey course covers financing, appraising, property management, salesmanship and office management. Special fee. (45 contact hours)

REE0032
Principles and Practices 2 **2.5 credits**
A course designed for the beginning Real Estate salesperson with concentration on the important phases of practical day-to-day operations in a real estate brokerage. Instruction will include listing procedures, effective advertising sales techniques, financing, appraising, property management, leasing and professional and public relations. Prerequisite: REE 0032 or possession of a valid Real Estate Salesman's License. Special fee. (75 contact hours)

REE0035
Mathematics for Real Estate **1.5 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: percents in real estate, mortgage math, real estate taxes, legal descriptions and area problems, math in real estate appraising and pro-rating for closing statements. Special fee. (45 contact hours)

REE0045
Real Estate Financing **1.5 credits**
This covers methods of financing real estate in fixed rate, variable rate, FHA, VA and graduated mortgage arrangements. Creative financing methods are also discussed. Special fee. (45 contact hours)

REE0060
Certified Appraisal 1 **2 credits**
This is an introduction to the appraisal process and the different approaches, methods and techniques used to determine the value of residential property. Special fee. (60 contact hours)

REE0080
Real Estate License Exam Preparation **1 credit**
This is a review of the Principles and Practices 1 course. It is intended for the student who has been successful in the final exam of the course, but who wants to review concepts and skills to ensure a better performance on the State of Florida licensing exam. Special fee. (30 contact hours)

REE0180
Registered Appraisal (AB I) **2.5 credits**
This fulfills the first requirement for certification as a Residential Real State Appraiser in the State of Florida. Frequent case studies and community examples are included. Special fee. (75 contact hours)

REE0182
Certified Appraisal (AB II) **1 credit**
This course, together with successful completion of course 1, fulfills requirements for certification as a Certified Residential Appraiser in Florida. It includes analysis of markets, urban growth, statistical methods and case studies of residential site evaluation. Special fee. (30 contact hours)

REE0184
Certified General Appraisal Course 3 **2 credits**
This course, subsequent to successful completion of the two Real Estate Residential Appraiser courses, leads to certification as a Certified General Appraiser by the FREC. Commercial site and evaluation and capitalization techniques are covered. Special fee. (60 contact hours)

REE0271
Mortgage Broker Exam Preparation **1.5 credits**
This course is a review of the law, terminology and mathematical computations that are customarily included in the questions that compose the Florida State Licensing exam to become a Mortgage Broker. A certificate is issued upon successful completion of this course. Special fee. (45 contact hours)

REE0302
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 hours)

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 hours)

REE0802
Broker Estate Brokers
License Exam Preparation — 2.5 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 hours)

Risk Management and Insurance

RMI0001
Principles of Insurance — 2.5 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 hours)

RMI0092
40-Hour Health
Agency License Preparation — 1.5 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 hours)

RMI0093
100-Hour Customer
Service Representative — 3.5 credits
This course is designed to prepare the student for the customer service representative exam. The course covers topics that are general for the selling of insurance. Special fee. (105 contact hours)

RMI0230
Introduction to
Financial Planning — 1 credit
This course is affiliated with the American College of Life Insurance at Bryn Mawr. Topics include assessment of client needs, risk tolerance, effective communication, time value of money, income tax planning, estate and gift planning and computerization. Special fee. (30 contact hours)

RMI0232
Investment Practices — 2.5 credits
This course covers the practices involved in investing in stocks and bonds from the short-term and the long-term points of view. Special fee. (75 contact hours)

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 hours)

RMI0235
Wealth Accumulation Planning — 1 credit
This course covers personal tax principles and planning, investing for tax advantages, various in- vestment vehicles, and tactical and strategic tax planning for wealth accumulation. Special fee. (30 contact hours)

RMI0601
Repeat 2-20 General
Lines Insurance Preparation — 8 credits
This is a repeat course designed for students who have not successfully completed the preparation course or passed the end-of-course exam for 2-20 General Lines Insurance Preparation. Special fee. (24 contact hours)

RMI0642
Repeat Life
and Health Agent — 1.5 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 hours)

Student Life Skills

SLS0201
Increasing Personal
Effectiveness — 1 credit
This course reviews key strategies for personal growth, analyzes personal strengths and weaknesses, identifies personal goals and motivates the participant towards them, and demonstrates techniques for improving interpersonal relationships. Special fee. (30 contact hours)

SLS0223
Stress Management — 1 credit
This course clarifies the concept of stress, helps the participant identify personal strengths and weaknesses in dealing with stress, practices various methods of stress reduction and helps establish a personal action plan for dealing with stressors. Special fee. (30 contact hours)

SLS0263
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 hours)

SLS0301
Career Advancement — 1 credit
This course helps the participant identify career goals, analyze personal strengths and weaknesses, prepare a professional resume and review practical suggestions for job hunting and interviewing. Special fee. (30 contact hours)

SLS0304
I-CAN Career Assessment — 1 credit
This course is a comprehensive testing, advisement and career planning activity that is modeled after the corporate outplacement models utilized by AT&T and BellSouth. It provides a framework for life-long career planning. Special fee. (30 contact hours)

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 hours)

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)

SUR0102C
Surveying Techniques 1 — 4 credits
This course focuses on the practices in surveying and the use of principal types of surveying instruments in horizontal and vertical planes. Problems include the measurement of distance, use of the compass, sextant, transit traverse and basic mapping. Field and laboratory practice are required. Special fee. (120 contact hours)

Transportation and Traffic Management

TRA0701
Transportation/
Geographical Considerations 1 credit
This course will address the logistics for import and 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 hours)

Travel Industry Management

HMV0030
Travel/Tourism
Career Planning 1 credit
This course is designed for the aspiring travel professional at any educational level. Early planning assists with career development. The goal of the course is to develop a step-by-step plan for your career. Each student will develop an effective resume. Special fee. (30 contact hours)

HMV0031
Introduction to
the Travel Industry 1 3 credits
The objective of this course is to create an understanding of the domestic travel industry. Manual and computerized reservation procedures for airline reservations are covered. A minimum of 30 hours hands-on in the computer lab is required. Special fee. (90 contact hours)

HMV0033
Transportation and
Geography Concepts 2.5 credits
A study of worldwide nationalities in terms of recreational geography, economic descriptions and environmental conditions. Major attractions of various countries at specific times, including cultural, industrial, historical and artistic displays are emphasized. Special fee. (75 contact hours)

HMV0034
Fundamentals of
the Travel Industry 2.5 credits
A comprehensive study of the facilities, equipment and resources required in various travel industry operations, such as airlines, car rentals, cruise lines, hotels and travel agencies. Special fee. (75 contact hours)

HMV0602
Sales in
the Travel Agency 2.5 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 hours)

HMV0642
Convention and
Meeting Planning 1 credit
Meeting and convention planners specialize in business conferences. Students will learn the skills necessary to plan a one-hour conference to a one-week deluxe conference. Course content includes resources, marketing techniques, sales leads, logistics and follow-up. Special fee. (30 contact hours)

HMV0702
Airline Computer
Reservations 3 credits
Students will demonstrate the proficient use of advanced ticketing and tariff skills. All material and laboratory work will involve System One reservations computer. A hands-on use of the computer terminal (CRT). Special fee. (90 contact hours)

HMV0703
Airline Ticketing
Procedures 3 credits
Topics include skills in airline ticketing, domestic and international fare construction. Upon completion, the student will demonstrate the skills necessary to schedule flight itineraries, select appropriate airfares and issue all the required documents. Special fee. (90 contact hours)

HMV0709
Issues in
Travel Agency Management 2 credits
Issues in Travel Agency Management will help students improve their ability to analyze financial statements, prepare budgets and manage cash flow. Unit activities will help develop strategies to increase agency profitability and establish priorities at work. Students will gain a better understanding of automation. Special fee. (60 contact hours)

HMV0711
Cruise Line Sales 1 credit
This course addresses the skills necessary to sell and promote cruises at the retail and wholesale level. The student will learn to negotiate with cruise lines, develop marketing plans, and establish a client base. Special fee. (30 contact hours)

HMV0720
Incentive and
Specialty Travel 1 credit
Incentive travel is a modern management tool used to motivate salespersons, clients, employees and management. Travel is the primary reward used by management for achievement. This course teaches the student the skills necessary to identify and successfully apply incentive planning. Special fee. (30 contact hours)

HMV0732
Travel Management
Microcomputer Applications 2 credits
This course is designed to teach managers how to effectively use a personal computer to enhance their business. Introduction to Microcomputers (CGV 0010) or its equivalent is required prior to enrollment in this course. Applications for marketing, accounting and staff training are covered. Special fee. (60 contact hours)

HMV0944
Travel/Tourism Internship 2.5 credits
The focus of this course is practical experience in the fields of Travel/Tourism. Employment can be arranged either by the department or by the student. Paid employment is not required to earn credit. Ten of the 75 hours are spent in the classroom preparing a successful internship. Special fee. (75 contact hours)

HMV0948
Co-op Work
Experience: HMV 1-3 variable 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 HMV 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 Co-Operative Education Office to obtain registration approval. Special fee. (30-90 contact hours)

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 hours)

Vocational Preparatory

VPI0111
Vocational Preparatory
Reading 1-6 variable 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 hours)

VPI0211
Vocational Preparatory
Mathematics 1-6 variable 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 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 hours)

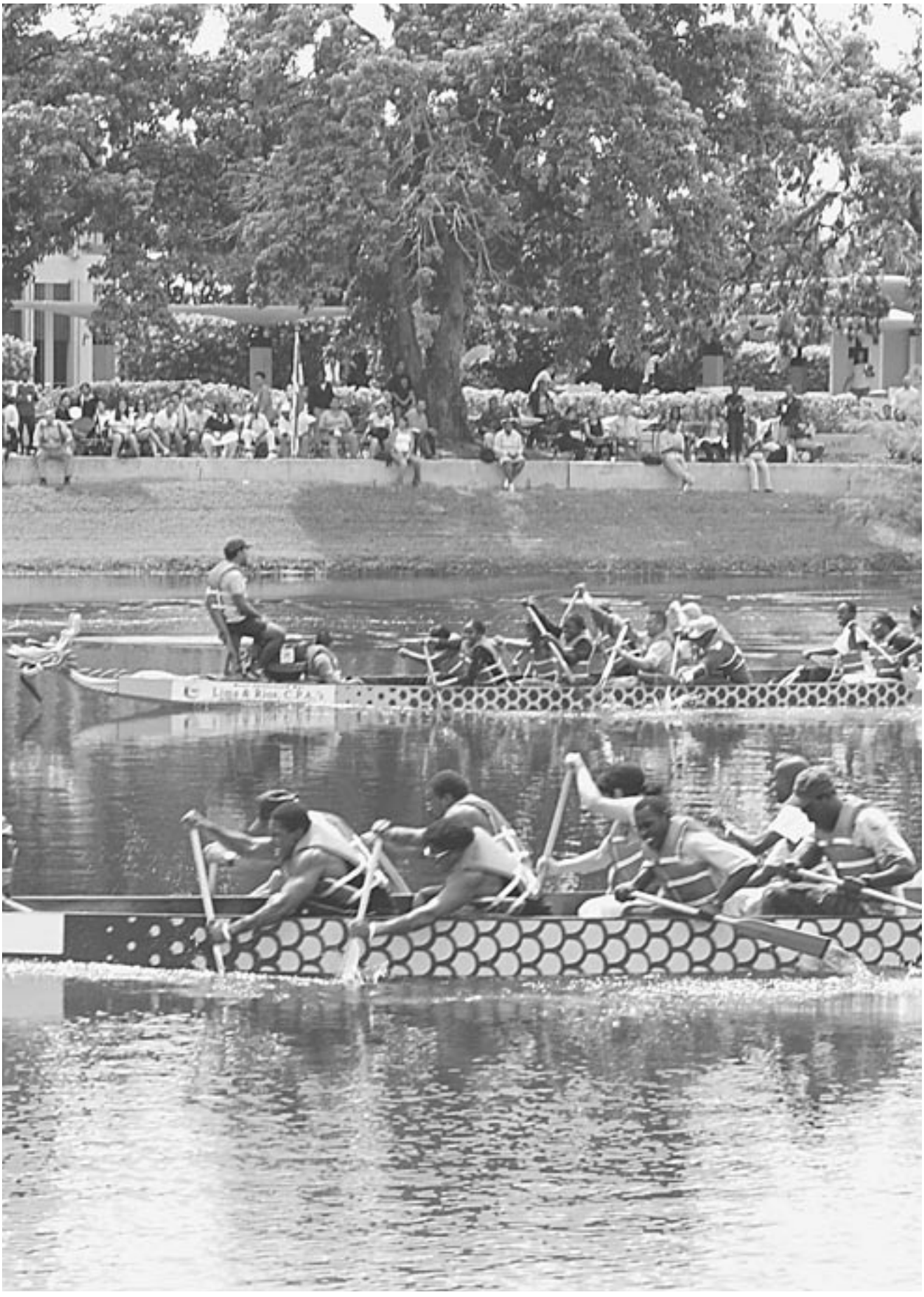
VPI0311
Vocational Preparatory
English 1-6 variable credits
This course is intended for the student who has tested in at a level on the (TABE) test that requires some work to improve basic language skills. Individualized work on a computer is prescribed to enable the student to test out at an appropriate level to be successful in a Vocational program. (30-180 contact hours)

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 Co-Operative 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: this course 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.)



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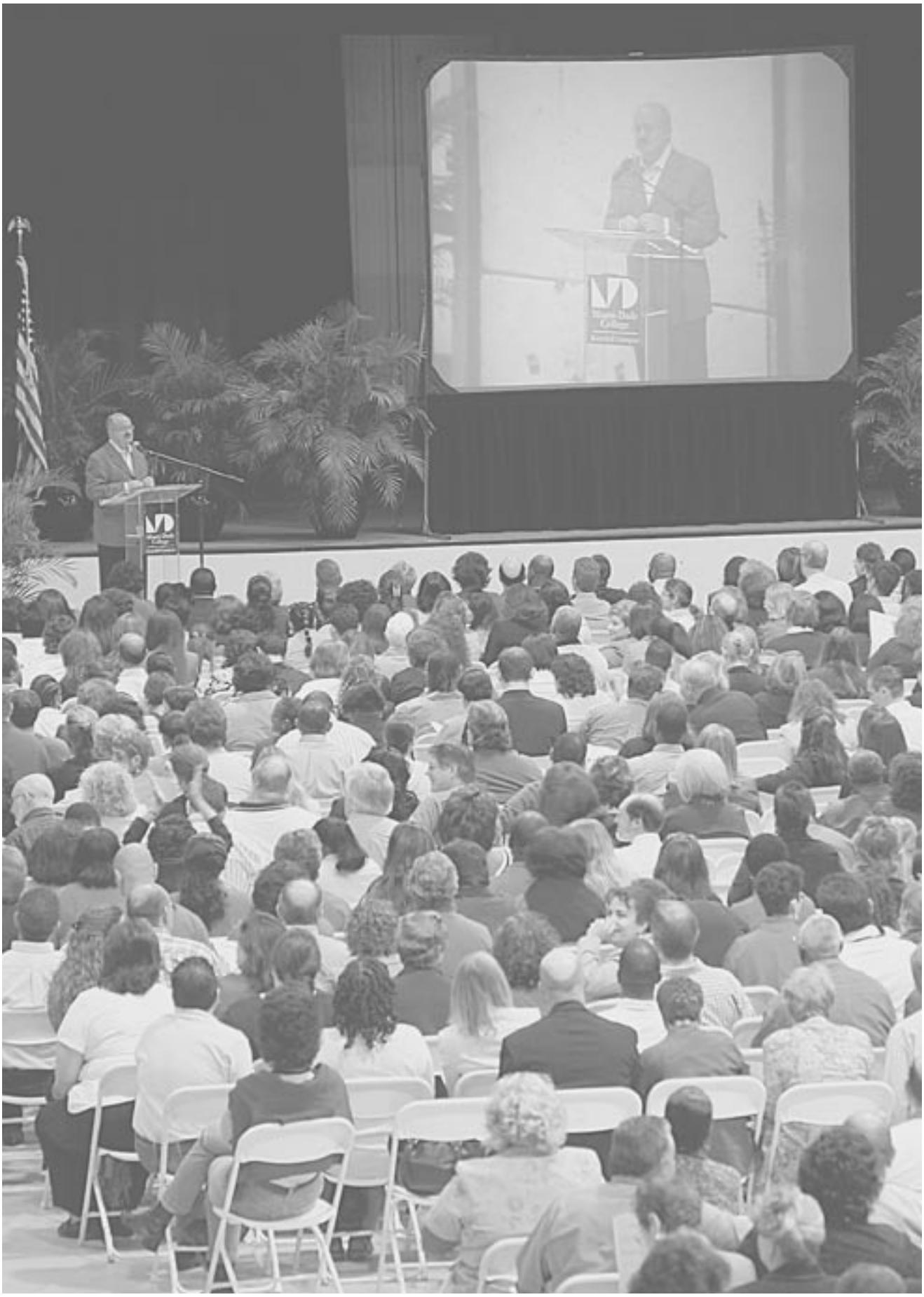

Miami Dade College Board of Trustees

HELEN AGUIRRE FERRÉ (Chair) is an experienced bilingual journalist in both print and broadcasting and has worked in South Florida for nearly 20 years. She is Opinion Page editor of Diario Las Americas where she has a weekly column in the Sunday edition. She also is host of the public affairs program "Issues" for WPBT Channel 2. She has been a guest political analyst on the Spanish-language network, Telemundo, particularly highlighting the 2004 electoral year and current events in Latin America. She completed a series for Diario Las Americas in Israel during the second Intifada. She is often asked to moderate or conduct interviews in South Florida for various organizations such as the Downtown Bay Forum, a vibrant civic organization that hosts monthly luncheons with high-profile guests. Helen Aguirre Ferré takes great pride in her community involvement, particularly in regard to education. Of greatest importance, she serves as Chair of the Board of Trustees of Miami Dade College, the first woman in that position. She also served as a state-appointed member of the 2005 Higher Education Task Force of Florida. She is a member of distinguished national organizations, including the Council on Foreign Relations, the InterAmerican Dialogue, the Florida Chapter of the International Women's Forum and the National Association of Hispanic Journalists. Locally, she is a member of the Women's Fund of Miami Dade, the Angels of Mercy, Mercy Hospital and the American Nicaraguan Foundation and is a Dame of the Knights of Malta. She has received numerous awards and recognitions, including Outstanding Alumna of Barry University and Outstanding Alumna of Archbishop Curley Notre Dame High School 2005. She was recently recognized by Women Fighters for Democracy (2005) and is listed in Who's Who Among Hispanics in the United States. She has been profiled in Hispanic Trend Magazine, El Nuevo Herald and Miami Today. A strong advocate for higher education, she earned an M.A. in InterAmerican Studies from the University of Miami's School of Advanced International Studies and a B.A. in Political Science from Barry University, where she was inducted into Phi Alpha Theta. Helen Aguirre Ferré, whose family is originally from Nicaragua, was born in Miami where she lives with her husband and three children.

HANK KLEIN (Vice Chair) is the vice chairman of Codina Realty Services, specializing in office, industrial, investment and retail brokerage, market research and analysis and financial services. He is responsible for marketing Codina Group's multiple product lines and services, including tenant representation, property management, fee development and build-to-suit construction. He joined Codina Group in 1988 as president and CEO of Codina Bush Klein, the brokerage subsidiary of Codina Group, which later became Codina Realty Services Inc. ONCOR International. Before this, he was a senior sales consultant for Coldwell Banker Commercial Real Estate Services in Miami and a sales associate for Cushman & Wakefield of Florida. Mr. Klein is active in civic and community affairs. He is first vice chairman and a member of the Executive Committee of the Greater Miami Chamber of Commerce. In addition, he serves on the Board of Directors of Goodwill Industries, and the Board of Governors of the Dade Community Foundation. He also serves on the Board of Directors of Fiduciary Trust International of the South. He earned his bachelor's degree in education from the University of Miami and is an alumnus of Miami Dade College.

ARMANDO J. BUCELO JR. is an attorney in private practice who earned his Juris Doctor and bachelor's degrees from the University of Miami; he is also an alumnus of Miami Dade College. His law firm, the Law Offices of Armando J. Bucelo Jr., has been located in the Coral Gables area since 1982. For more than 15 years, he has acted as special counsel to the Code Enforcement Board of the City of Miami. Mr. Bucelo's public service includes serving as special advisor to the City of Miami; trustee for the Cuban-American National Republican Senatorial Committee; and Committeeman for the Republican Party. President George W. Bush appointed him chairman of the Board of Directors of the Securities Investor Protection Corporation, one of the highest appointments made to a Hispanic by the Bush administration. Former President Bush appointed him as the first Hispanic and the first Floridian ever selected to the Board of Directors of the Federal Home Loan Mortgage Corporation (Freddie Mac). At the recommendation of President George W. Bush, he also was appointed as a member of the Board of Directors of the National Housing Development Corporation, a prestigious national institution dealing with affordable housing. He has been involved in a myriad of community activities, including the Board of Directors of the YMCA International, the American Red Cross, 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 received proclamations from the United States House of Representatives and Senate, the Florida House of Representatives and Senate, and the cities of Coral Gables, Miami, Hialeah, West Miami, Sweetwater and Miami-Dade County. He is a chess and karate expert who enjoys outdoor activities with his wife Beatriz, and his three children, Armando Joseph, Alexis Marie and Alexander Luis.

CAROLINA CALDERÍN is assistant to the president and administrator at Belen Jesuit Preparatory School. She has earned widespread recognition and respect in the area of health care, particularly where the most vulnerable in our community are concerned. She has served as senior vice president for Administration for Physicians Healthcare Plans Inc. For 12 years, she served as chief executive officer of Pan American Hospital, where she began her career as a medical technologist some three decades earlier; and she was the first Hispanic woman to serve as CEO of a hospital in Florida. She was recognized as "Best Administrator" in 1998 by the Florida Healthcare Forum. The South Florida Business Journal named her "Administrator of the Year" in 1996; the American Red Cross selected her as "Healthcare Personality of the Year"; and the Greater Miami Chamber of Commerce recognized her as Health Care Hero in 1998. In 1992, Calderín was honored as one of the nation's "100 most influential Hispanics." She is active in our community and has served as a member of the Miami-Dade County Community Relations Board, the Dade County Indigent Task Force, as well as on the boards of many organizations, including United Way, Alliance of Aging, Carrollton School, South Florida Hospital Association, Greater Miami Chamber of Commerce, the American Heart Association, the Children's Cancer Center and the South Florida Health Planning Council. She served a six-year term as a member of the Board of Trustees of the Rhode Island School of Design. She earned her MBA-HA degree from the University of Miami.

DENISE MINCEY-MILLS is president of Pope-Mincey Consulting Group, which provides a full range of public affairs, marketing and organizational management services to a wide range of business and industry. Before co-founding the firm, she was vice president for Community Affairs for Turner Construction Company in Florida. She managed the firm's community affairs program and was responsible for implementing and managing its diversity program in Florida. She has more than 25 years of experience in commercial construction and project administration. She is a member of the Orange Bowl Committee, the Miami Performing Arts Center Trust (PACT); the Carrie Meek Foundation Board of Directors, the Women's Fund of Miami-Dade County Board of Directors and the National Association of Women Business Owners (NAWBO), from which she received the 2001 President's Award. She was inducted into the national honor fraternity, Omicron Delta Kappa, at the University of Miami in 2002, and has been honored by the University for her leadership in developing the UM Black Alumni Association. She is listed in Who's Who of Professionals and won the 1995 Up and Comers Award for Public Affairs presented by the South Florida Business Journal and Price Waterhouse LLP. She is a graduate of

Leadership Miami and Leadership Florida and served on its Board of Regents in 2001-2002. She holds a bachelor's degree in Business Administration from the University of Miami and a paralegal degree from Capital Law School in Columbus, Ohio.

PETER W. ROULHAC is the first managing director of the Orange Bowl Foundation, the philanthropic arm of the Orange Bowl Committee. As managing director, he assists the Foundation's Board of Directors in raising the organization's profile in South Florida in the areas of marketing, outreach and fund-raising with a particular emphasis on youth and sports programs. This historic Foundation has a mission to organize, sponsor, produce, promote and participate in athletic contests, educational opportunities, clinics, expositions and other similar programs and projects that benefit South Florida youth, as well as to raise and receive funds from sponsors and the general public that help underwrite these events. Prior to joining the Orange Bowl Foundation, he was vice president and director of community development for Wachovia National Bank for Miami-Dade and Monroe counties. In this role, he oversaw business development and administered the bank's Community Reinvestment Program. He also worked extensively in low and moderate-income communities to ensure bank products and services were provided. His involvement with socially responsible banking is longstanding. Prior to joining Wachovia he administered equal opportunity, affirmative action and human resources policies for Southeast Bank and, prior to that, worked for the U.S. Treasury Department monitoring the compliance of banks and savings and loans associations with equal opportunity and affirmative action programs. He is a past chair of the Greater Miami Chamber of Commerce. He serves on the Advisory Board of the Local Initiative Support Corporation (LISC), which identifies opportunities to revitalize inner-city neighborhoods. As a member of the Fannie Mae Advisory Board, he developed a partnership between Wachovia/First Union and Fannie Mae to expand housing opportunities for South Florida's diverse population. He holds a bachelor's degree from Fisk University, and a master's from the University of Illinois, both in political science.

CESAR L. ALVAREZ is president and chief executive officer of Greenberg Traurig. Prior to becoming CEO of the firm, he practiced securities, corporate and international law for more than 25 years. Mr. Alvarez's professional and community involvement includes serving as chairman, Board of Directors, United Way of Miami-Dade; member, Board of Directors, Holocaust Documentation & Education Center, Inc.; trustee, Florida Free Trade Area of the Americas; member, Executive Committee, The Beacon Council; trustee, National Foundation for the Advancement in the Arts; and trustee, Vizcaya Foundation. Mr. Alvarez holds an Associate in Arts degree from Miami Dade College, a Bachelor of Science degree from the University of Florida, a Master of Business degree from the University of Florida and a Juris Doctor with high honors from the University of Florida Levin College Of Law.

EDUARDO J. PADRÓN was appointed president of Miami Dade College in October 1995, and has served at the College since 1970, when he began as a professor of economics. Under his leadership, MDC has grown to become the largest institution of higher education in the nation, with eight campuses enrolling more than 163,000 students. He has made student success the focus of all college activities and is respected nationally for his innovative efforts on behalf of underserved and underprepared students. MDC's Honors College, the Learning Agenda, new baccalaureate degrees and more than 60 new associate degrees and specialized work force training programs highlight the many advances Dr. Padrón has initiated for students and the community. He is also highly respected for overseeing a rich cultural program at the College that includes Miami Book Fair International, Miami International Film Festival and the Cultura del Lobo performing arts series. The long list of honors bestowed upon Dr. Padrón over the years includes presidential appointments from three U.S. presidents and recognition as National CEO of the Year by the Association of Community College Trustees in 2002. Dr. Padrón has served on the White House Initiative on Educational Excellence For Hispanic Americans; the boards of directors of The College Board, American Association of Colleges and Universities, American Council on Education and the Carnegie Foundation for the Advancement of Teaching; national board of Campus Compact (co-chair of Florida Chapter); governing board (founding member and former chairman) of the Hispanic Association of Colleges and Universities; board of directors of the U.S. Congressional Hispanic Caucus Institute, League for Innovation and the executive advisory board of the Harvard Journal of Hispanic Policy. He is the recipient of the NAACP Leadership Award, the Miami Herald's Spirit of Excellence Award, the United Way's Order of Distinction Award and the President's Award of Excellence from the Hispanic Association of Colleges and Universities, among numerous national and local awards. He has also received the highest order of distinction from the governments of Spain, France, Mexico and Argentina for his outstanding leadership and commitment to educational opportunity and cultural enrichment. He holds a doctorate from the University of Florida and is a prolific writer with numerous publications to his credit. He is also an alumnus of Miami Dade College

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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 next 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 degree program, but culminate in a college credit certificate after approximately 24 credits.

College Level Academic Skills Test (CLAST): An achievement test required for graduation with an Associate in Arts degree or admission to the upper division of state universities in Florida.

College Prep: College preparatory 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.

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.

Co-requisite: 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.

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 endeavor (i.e., business administration, engineering, etc.).

Occupational Programs: College credit programs leading to an Associate of Science degree.

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; for details and definitions, see Standards of Academic Progress in this section.

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 Vocational Credit Certificate 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.

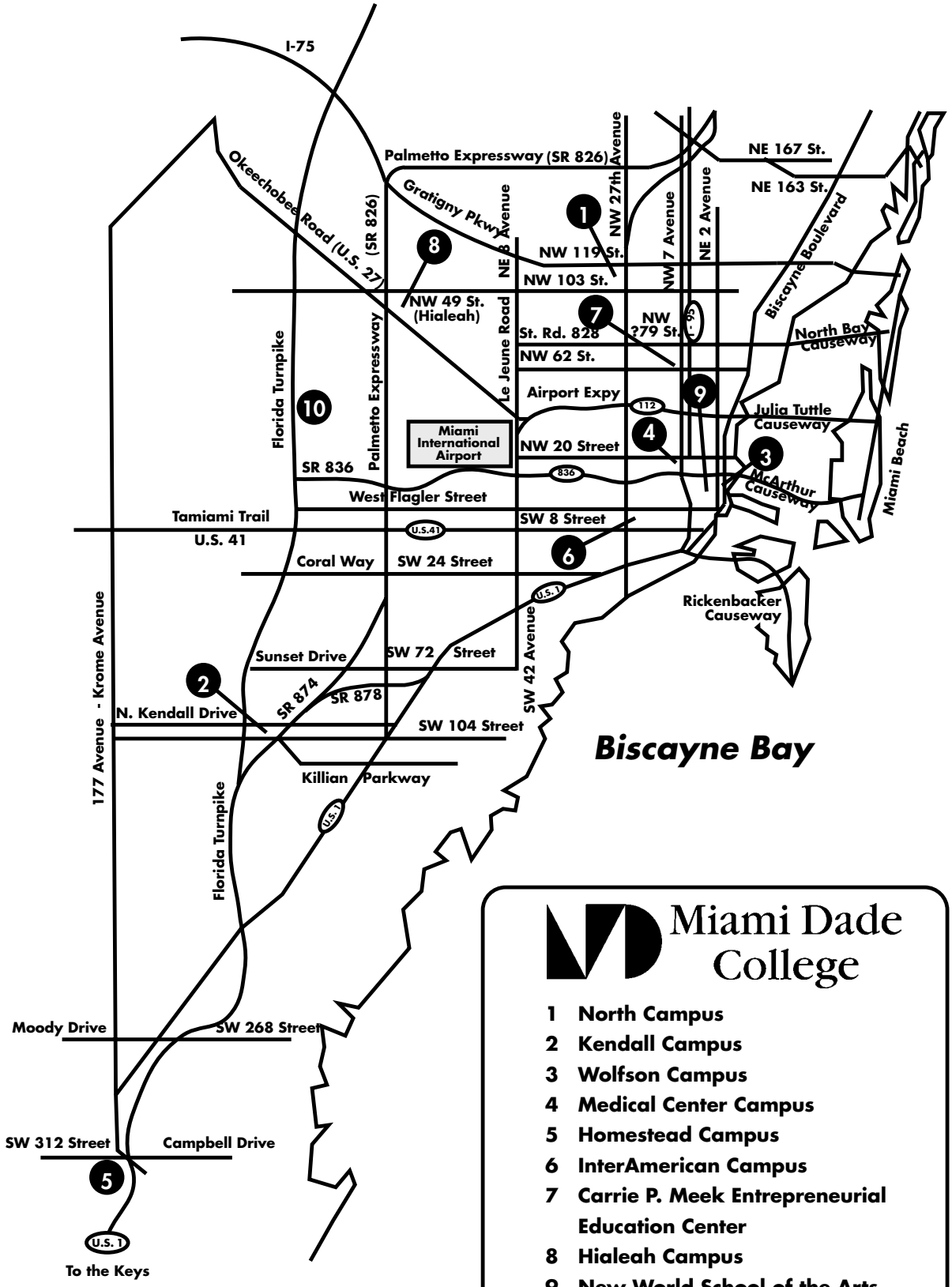
Short Term: Summer A and Summer B, *six (6) weeks each. Courses meet additional contact hours per week during the Summer A/Summer B Terms.

*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).

Vocational Credit Certificate Programs (VCCP): These programs are defined by the State of Florida and consist of courses valued in vocational credits. Vocational Credit Certificate programs are designed to lead to immediate job entry upon completion. Those who complete a Vocational Credit Certificate Program receive a Vocational Credit Certificate and are entitled to attend graduation exercises.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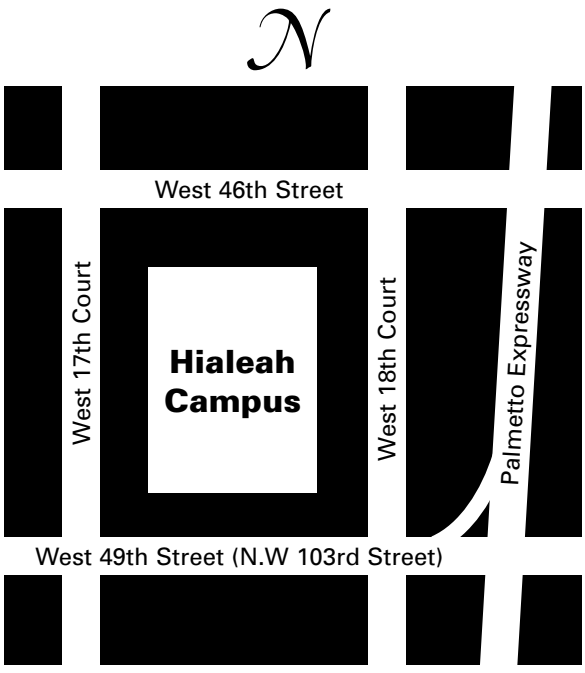
NE 163 St.
NW 27th Avenue
NW 7 Avenue
NE 2 Avenue
NE 8 Avenue
NW 119 St.
NW 103 St.
NW 49 St. (Hialeah)
Biscayne Boulevard
NW 79 St.
St. Rd. 828
North Bay Causeway
NW 62 St.
Florida Turnpike
Palmetto Expressway
Le Jeune Road
Airport Expy
Julia Tuttle Causeway
Miami International Airport
NW 20 Street
Miami Beach
SR 836
West Flagler Street
McArthur Causeway
Tamiami Trail
U.S. 41
SW 8 Street
Coral Way
SW 24 Street
Rickenbacker Causeway
177 Avenue - Krome Avenue
Sunset Drive
SW 72 Street
SW 42 Avenue
SR 874
SR 878
N. Kendall Drive
SW 104 Street
Biscayne Bay
Killian Parkway
Florida Turnpike
Moody Drive
SW 268 Street
SW 312 Street
Campbell Drive
To the Keys
1 North Campus
2 Kendall Campus
3 Wolfson Campus
4 Medical Center 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 West Campus

Hialeah Campus

1776 W. 49th St.
Hialeah, FL 33012

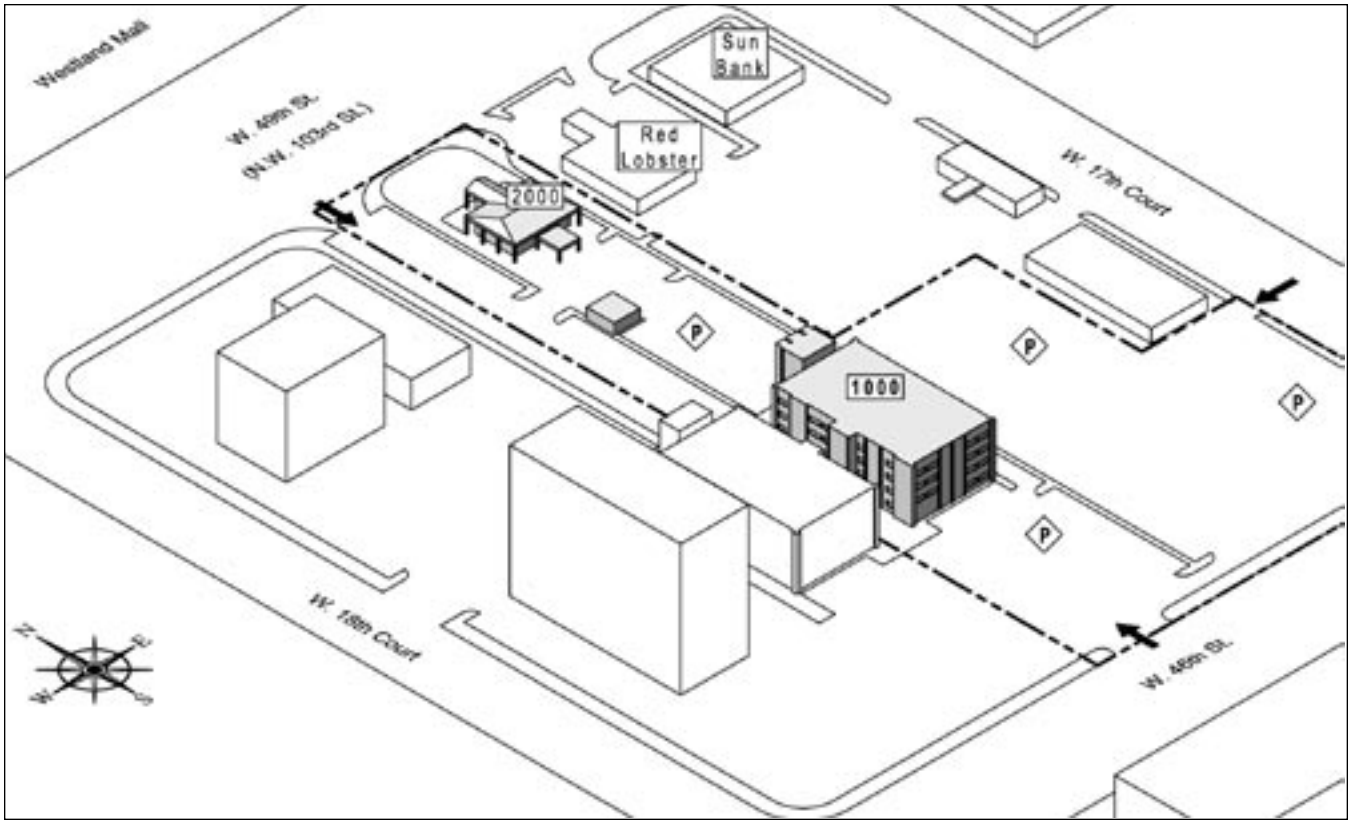


Important Phone Numbers

305-237-8775 • Admissions Information
305-237-8775 • Registration Information
305-237-8794 • Academic Advisement Information
305-237-8779 • Financial Aid Information
305-237-0000 • STAR Service Telephone Registration
305-237-8701 • Campus Security
305-237-8700 • Testing Information

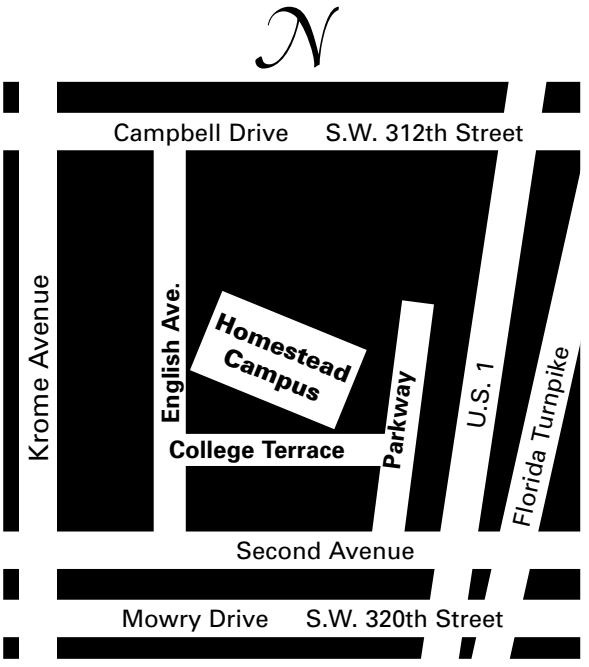
Key to Campus Locations

1000	Classrooms Building
2000	Student Services/Admissions
P	Parking



Homestead Campus

500 College Terrace
Homestead, FL 33030

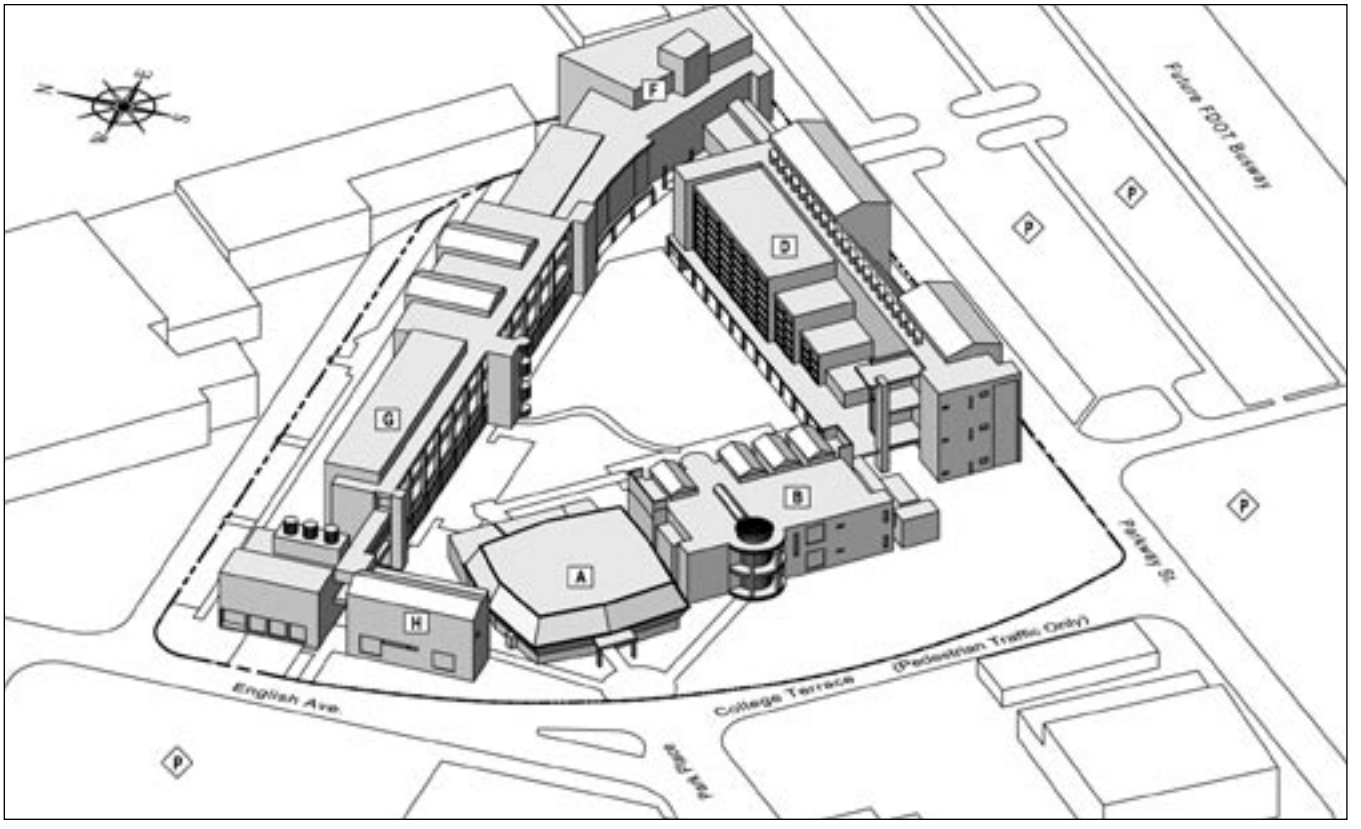


Important Phone Numbers

305-237-5555 • Admissions Information
305-237-5555 • Registration Information
305-237-5000 • Academic Advisement Information
305-237-5024 • Financial Aid Information
305-237-0000 • STAR Service Telephone Registration
305-237-5100 • Campus Security
305-237-5019 • Registrar Fax
305-237-5105 • Testing Information

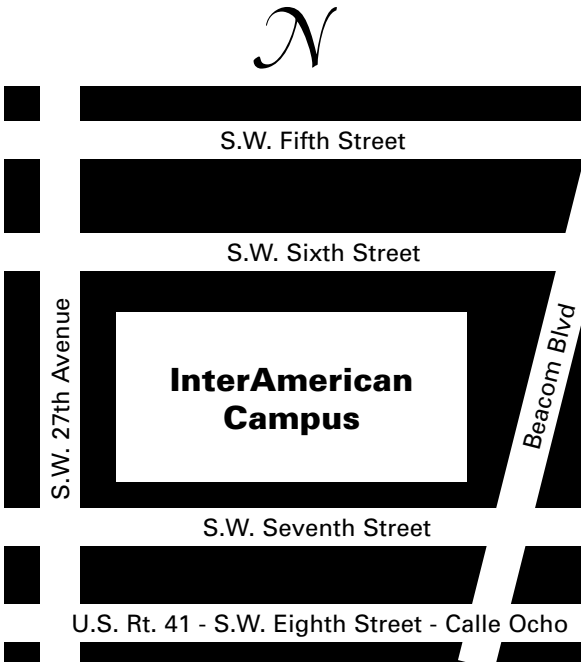
Key to Campus Locations

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

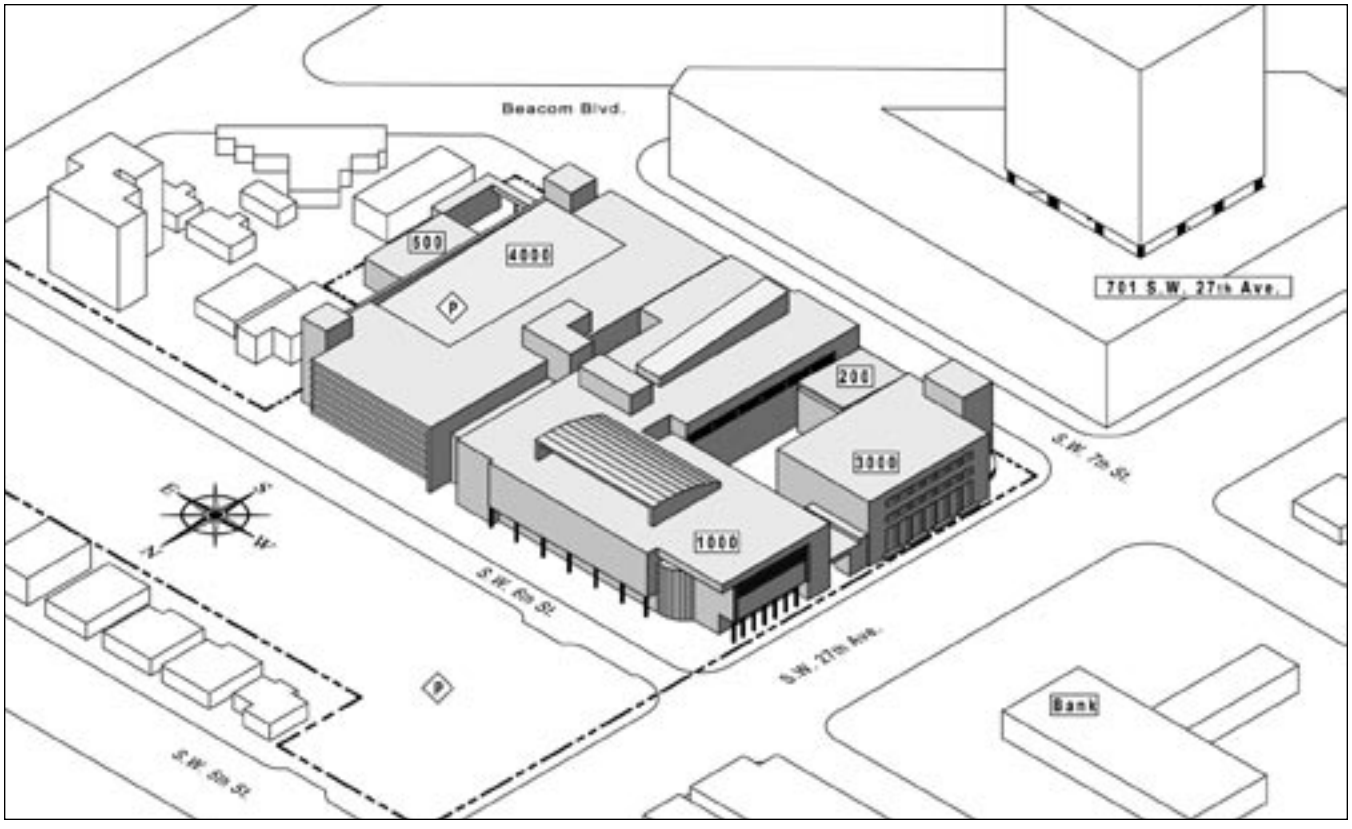


Important Phone Numbers

305-237-6020 • Admissions Information
305-237-6044 • Registration Information
305-237-6133 • Academic Advisement Information
305-237-6040 • Financial Aid Information
305-237-0000 • STAR Service Telephone Registration
305-237-6100 • Campus Public Safety
305-237-6232 • Testing Information
305-237-6000 • Campus Main Number
305-237-6045 • Student Services Information

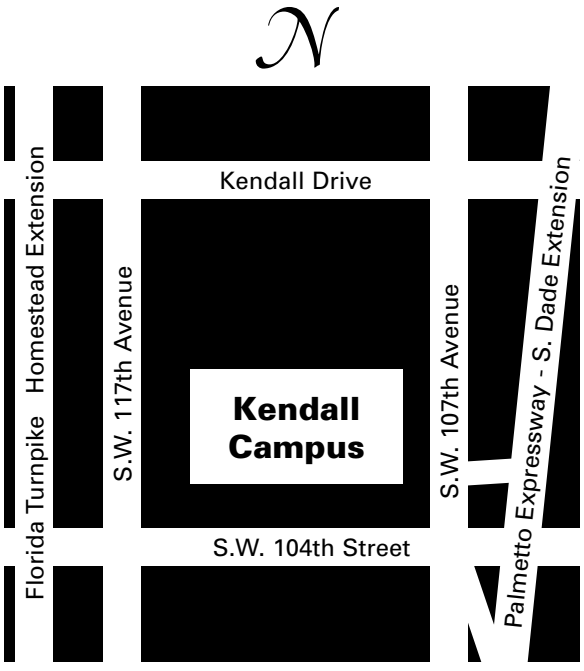
Key to Campus Locations

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

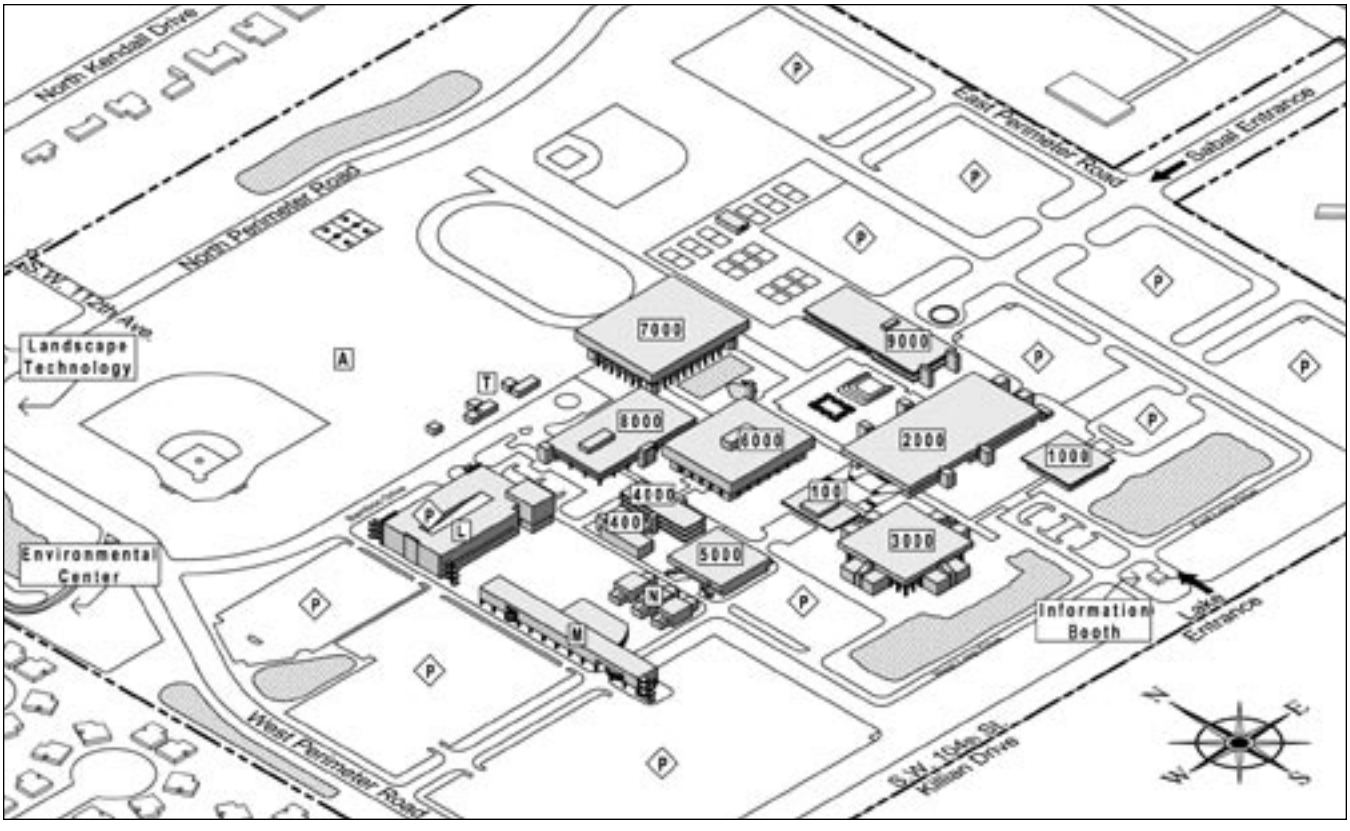


Important Phone Numbers

305-237-2222 • Admissions Information
305-237-2222 • Registration Information
305-237-2125 • Academic Advisement Information
305-237-2325 • Financial Aid Information
305-237-0000 • STAR Service Telephone Registration
305-237-2100 • Campus Security
305-237-2964 • Registrar Fax
305-237-2341 • Testing Information
305-237-2161 • Community Education

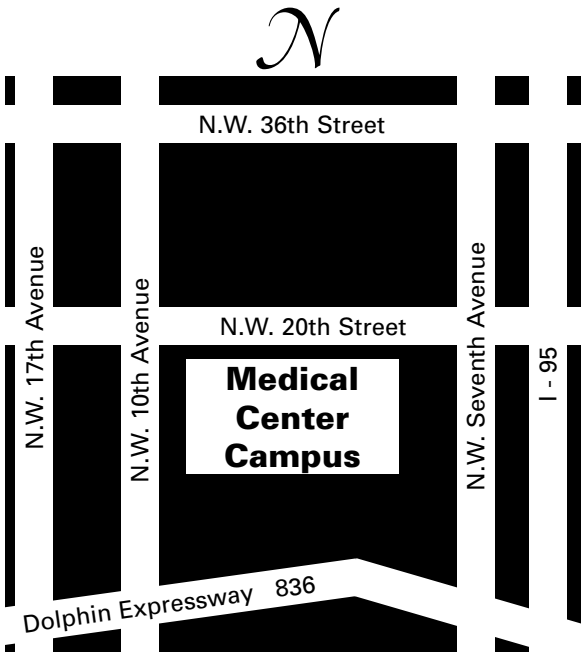
Key to Campus Locations

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
T	Trailers



Medical Center Campus

950 N.W. 20th St.
Miami, FL 33127

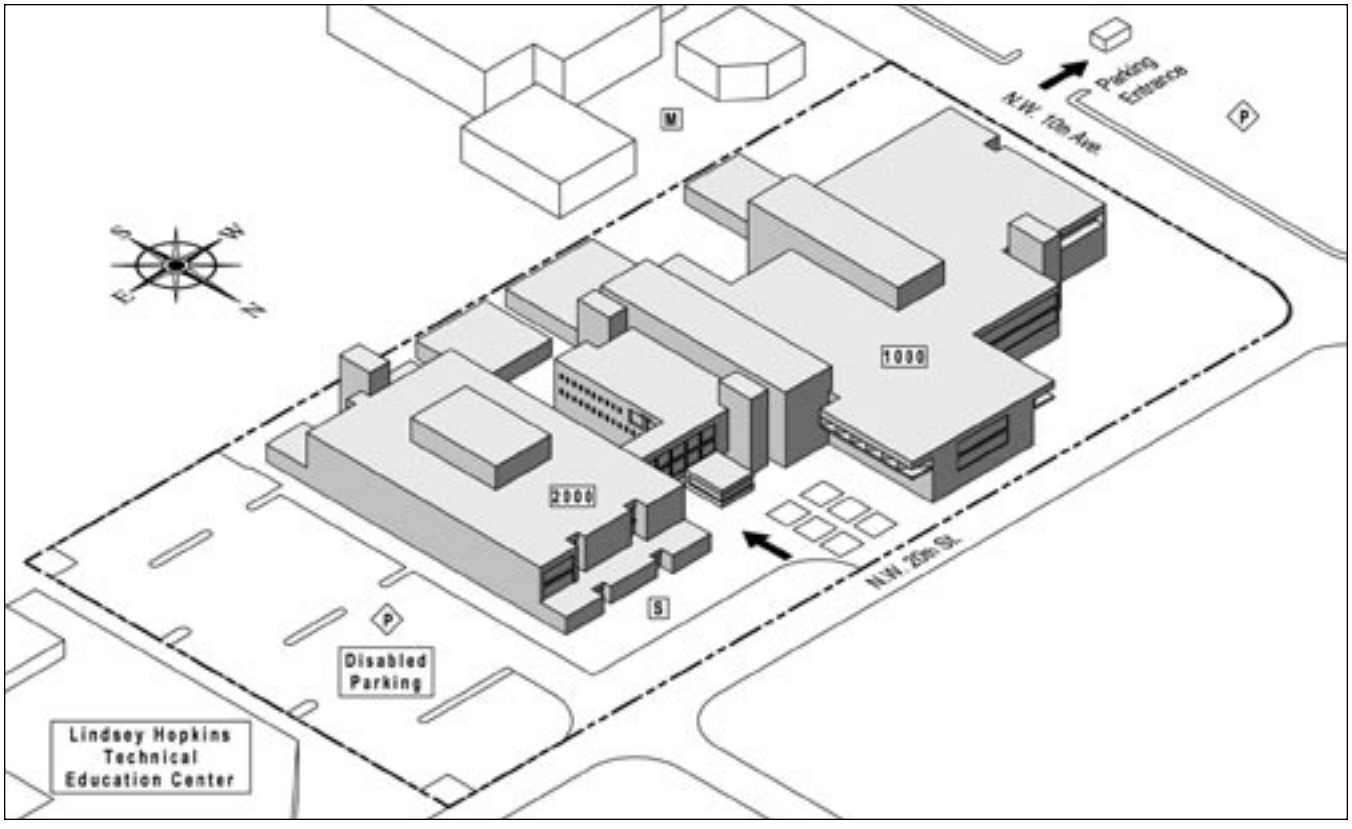


Important Phone Numbers

305-237-4444 • Admissions Information
305-237-4444 • Registration Information
305-237-4238 • Academic Advisement Information
305-237-4160 • Financial Aid Information
305-237-4141 • New Student Center
305-237-0000 • STAR Service Telephone Registration
305-237-4100 • Campus Security
305-237-4374 • Vocational Certificate Student Resource Center
305-237-4275 • Testing Information

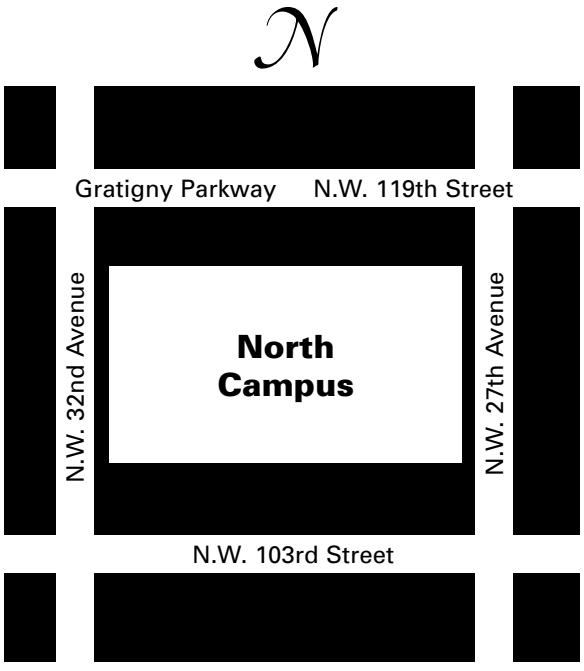
Key to Campus Locations

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

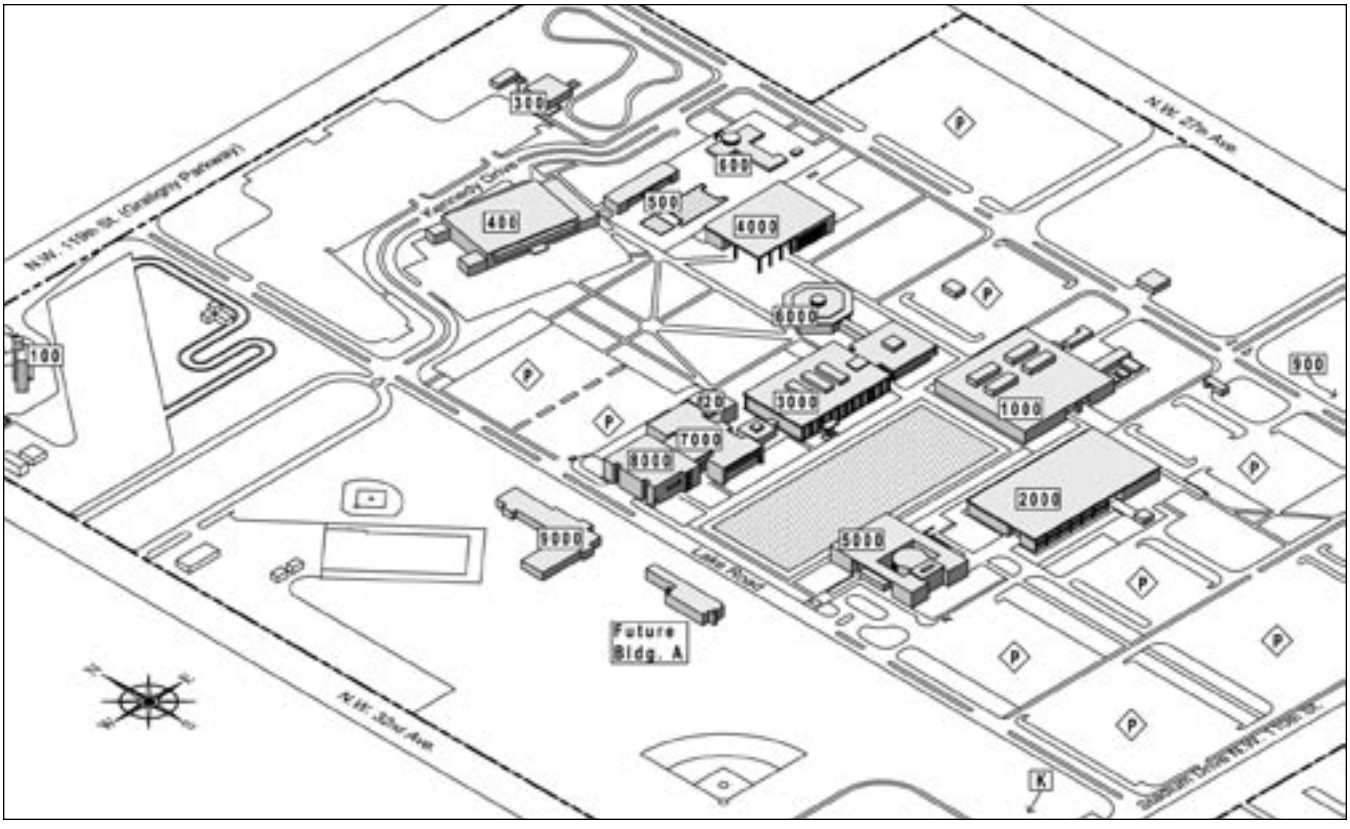


Important Phone Numbers

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
305-237-0000 • STAR Service Telephone Registration
305-237-1100 • Campus Public Safety
305-237-1000 • Campus Main Number
305-237-1015 • Testing Information

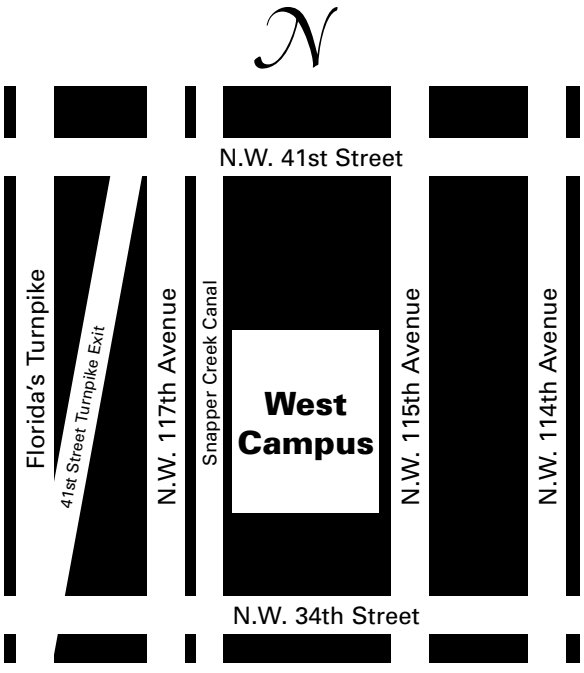
Key to Campus Locations

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 (future site)
P	Parking
K	Fire Science/Burn Building



West Campus

3800 N.W. 115th Ave.
Doral, FL 33178

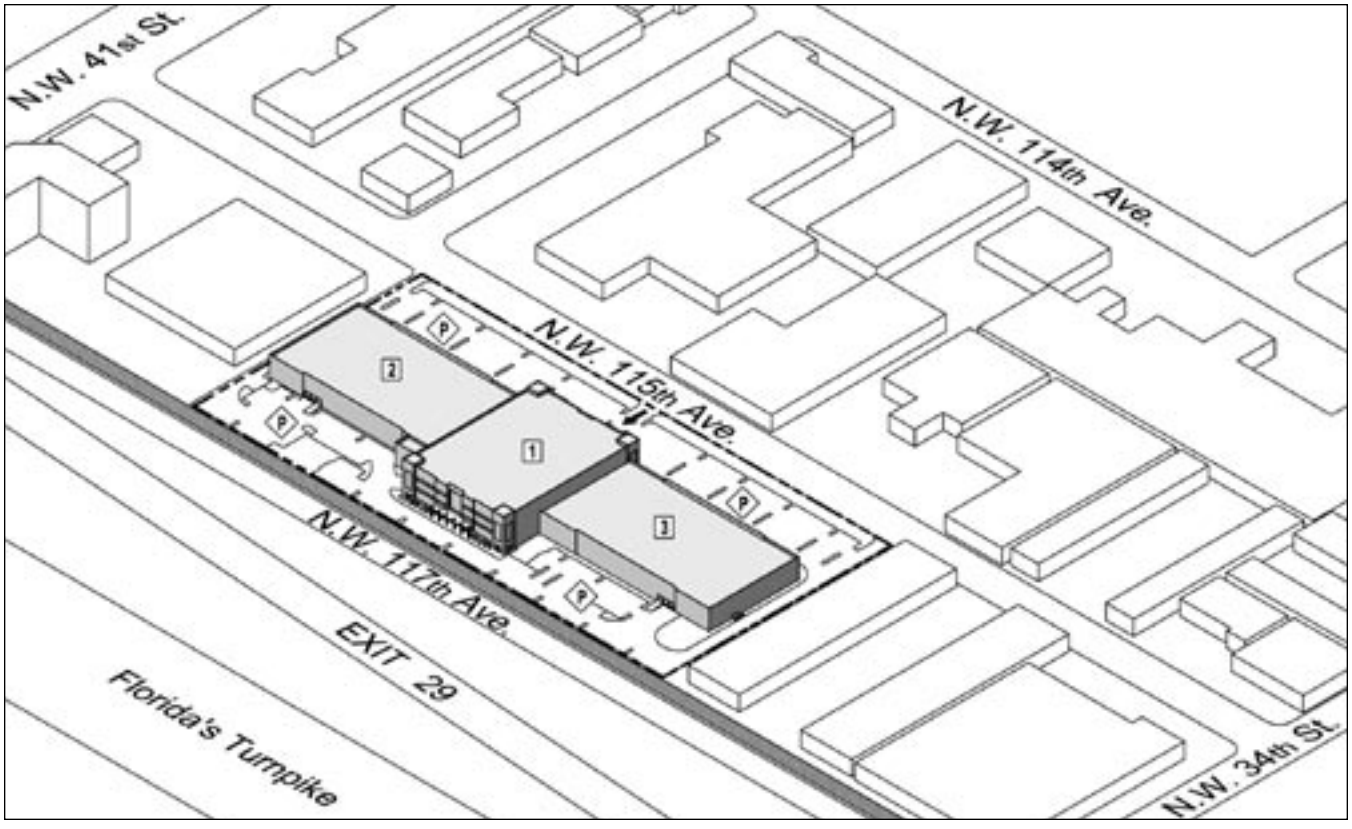


Important Phone Numbers

305-237-8900 • Admissions Information
305-237-8900 • Registration Information
305-237-8940 • Academic Advisement Information
305-237-8941 • Financial Aid Information
305-237-0000 • STAR Service Telephone Registration
305-237-8100 • Campus Security
305-237-8918 • Testing Information

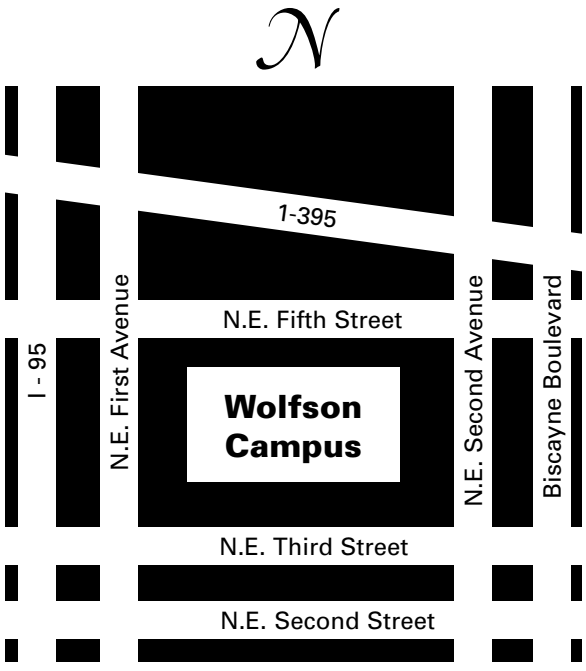
Key to Campus Locations

1	Central Building/Classrooms
2	North Wing
3	South Wing
P	Parking



Wolfson Campus

300 N.E. Second Ave.
Miami, FL 33132

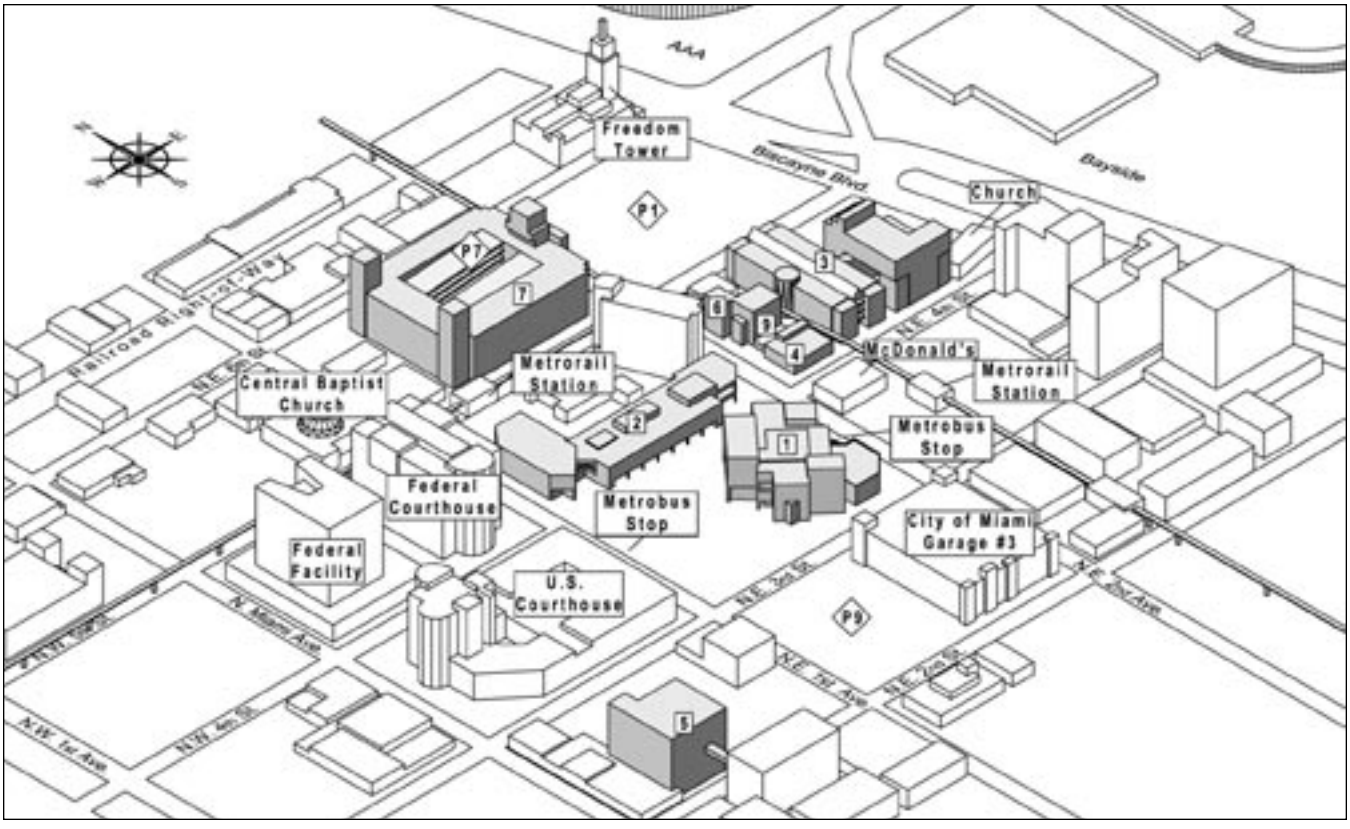


Important Phone Numbers

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
305-237-0000 • STAR Service Telephone Registration
305-237-3100 • Campus Security
305-237-3490 • Career & Transfer Center
305-237-3358 • Job Placement
305-237-3072 • Access Services

Key to Campus Locations

1	Administration
2	Student Life and Auxiliary Services
3	Student Services
4	MDC Foundation
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	Sign and Banner Print Shop
P1	Faculty/Staff Parking
P7	Student/Faculty/Staff Parking
P9	Student Faculty/Staff Parking



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