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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 students, employees, applicants for admission and employment, and to its activities for the general community in an environment free from harassment or other discriminatory practices based upon gender, race, color, marital status, age, religion, national origin, veteran's status or disability. The College's commitment to equal access and equal opportunity is contained in the District Board of Trustee policies and procedures based on the nondiscrimination provisions of federal and state laws and regulations, including the Civil Rights Acts of 1964 and 1991, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act and the Florida Educational Equity Act (§ 1000.05, F.S.).

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

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

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

District Administration

Joy C. Ruff

Office of Employee Relations/Equal Opportunity Programs/ADA Coordinator
Miami Dade College
11011 S.W. 104th St.
Miami, FL 33176-3393
Phone: 305-237-2090 Fax: 305-237-0943
Visit www.mdc.edu

North Campus

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

Kendall Campus

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

Wolfson Campus

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

Medical 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 W. 49th St.
Hialeah, FL 33012-2918

MDC-West

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

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

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 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)
Commission on Accreditation for Respiratory Care
Federal Aviation Administration
Florida Board of Nursing
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

Professional Organizations and Association Memberships

American Association for Higher Education & Accreditation (AAHE&A)
American Association of Hispanics in Higher Education, Inc. (ACCHHE)
American Association of Collegiate Registrars and Admissions Officers (AACRAO)
American Association of Community Colleges (AACCC)
American Association of Women in Community and Junior Colleges
American Council on Education (ACE)
American Council on International Intercultural Education (ACIIE)
Association of American Colleges and Universities (AAC&U)
Association of Collegiate Business Schools and Programs (ACBSP)
Association of Community College Trustees (ACCT)
Association of Governing Boards of Universities and Colleges (AGB)
Beacon Council
Business-Higher Education Forum (BHEF)
Educause, Association for Managing and Using Information Technology in Higher Education
Center for Study of the Presidency
College Consortium for International Studies
Community College Baccalaureate Association (CCBA)
Community College Humanities Association
Community Colleges for International Development (CCID)
Conference of Funeral Service Examining Boards
Consortium for Institutional Effectiveness and Student Success in the Community College
Council for Higher Education Accreditation (CHEA)
EDUCOM
Florida Association of Colleges and Universities (FACU)
Florida Association of Community Colleges (FACC)
Florida-Brazil Institute
Florida Campus Compact
Florida Collegiate Consortium for International/Intercultural Education
Florida Community College Activities Association (FCCAA)
Florida Developmental Education Association
Florida-France Institute
Florida Vocational Association
Fulbright Association
GATE: Global Alliance for Transitional Education
Greater Miami Chamber of Commerce (GMCC)
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 for Community College Entrepreneurship (NACCE)
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 (NCCCE)
National Community College Hispanic Council (NCCCE)
National Council for Occupational Education
National Council for Staff, Program and Organizational Development
National Council of Community College Business Officers
Southeast Florida Educational Computing Consortium
Southeast Florida Library Information Network
Southeastern Library Network
Southern Association of Colleges and Schools
The College Board
The College Board University Mortuary Science Education Association

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

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

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MDC



2010

AUGUST							SEPTEMBER						
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2011

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2012

JANUARY							FEBRUARY							MARCH							APRIL								
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MAY							JUNE							JULY							AUGUST														
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Academic Calendar 2010 – 2011

Fall Term

Aug. 19 (Thu.)	Faculty report
Aug. 20 (Fri.)	Fall term preparation
Aug. 23 (Mon.)	Evening and weekday classes begin*
Aug. 28 (Sat.)	Saturday classes begin*
Aug. 27 (Fri.)	Last day to drop classes with 100% refund for regular fall term classes
Sep. 4-6 (Sat.-Mon.)	Holiday – Labor Day
Nov. 2 (Tue.)	Last day to apply for institutional credit by examination for individual course withdrawal, and complete withdrawal from college
Nov. 11 (Thu.)	Holiday – Veteran's Day
Nov. 25-28 (Thu.-Sun.)	Holiday – Thanksgiving
Dec. 17 (Fri.)	Last day of classes and examination
Dec. 18 (Sat.)	Faculty grade input ends at noon. Last day for faculty
Dec. 20-31 (Mon.-Fri.)	Winter break (No classes scheduled. All College offices open on Dec. 29th and 30th.)

Spring Term

Jan. 3 (Mon.)	Faculty report
Jan. 4 (Tue.)	Evening and weekday classes begin*
Jan. 8 (Sat.)	Saturday classes begin*
Jan. 10 (Mon.)	Last day to drop classes with 100% refund for regular spring term classes
Jan. 15-17 (Sat.-Mon.)	Holiday – Martin Luther King, Jr. Day
Feb. 19-21 (Sat.- Mon.)	Holiday - President's Day
Mar. 3 (Thu.)	Professional Development Day – classes not in session
Mar. 16 (Wed.)	Last day to apply for institutional credit by examination, for individual course withdrawal, and complete withdrawal from college
Apr. 4 (Mon.)	Last day to apply for a degree to be awarded for the 2010-2011 academic year and have name appear in commencement program
Apr. 22-24 (Fri.-Sun.)	Spring recess
Apr. 29 (Fri.)	Last day of classes and examination
Apr. 30 (Sat.)	Faculty grade input ends at noon. Last day for faculty
Apr. 30 (Sat.)	Commencement
May 2-6 (Mon.-Fri.)	Semester break

Summer Term

May 9 (Mon.)	Faculty report
May 9 (Mon.)	Evening and weekday classes begin for first 6-week summer session and for the 12-week summer term*
May 11 (Wed.)	Last day to drop classes with 100% refund for the 6-week summer session
May 12 (Thu.)	Last day to drop classes with 100% refund for the 12-week summer term
May 28-30 (Sat.-Mon.)	Holiday – Memorial Day
June 3 (Fri.)	Last day to apply for institutional credit by examination, for individual course withdrawal, and complete withdrawal from college for the first 6-week summer session
June 17 (Fri.)	Last day of classes and examinations for the first 6-week summer session
June 18 (Sat.)	Faculty grade input for the first 6-week summer session ends at midnight
June 20 (Mon.)	Evening and weekday classes begin for the second 6-week summer session*
June 22 (Wed.)	Last day to drop classes with 100% refund for the second 6-week summer session
June 28 (Tue.)	Last day to apply for institutional credit by examination, for individual course withdrawal, and complete withdrawal from college for the 12-week summer term
July 4 (Mon.)	Holiday – Independence Day
July 15 (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 term
July 29 (Fri.)	Last day for classes and examinations for the 12-week summer term and the second 6-week summer session
July 30 (Sat.)	Faculty grade input ends at midnight; Last day for faculty

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

Academic Calendar 2011 - 2012

Fall Term

Aug. 18 (Thu.)	Faculty report
Aug. 19 (Fri.)	Fall term preparation
Aug. 22 (Mon.)	Evening and weekday classes begin*
Aug. 26 (Fri.)	Last day to drop classes with 100% refund for regular fall term classes
Aug. 27 (Sat.)	Saturday classes begin*
Sept. 3-5 (Sat.-Mon.)	Holiday - Labor Day
Oct. 31 (Mon.)	Last day to apply for institutional credit by examination, for individual course withdrawal, and complete withdrawal from college
Nov. 11-13 (Fri.-Sun.)	Holiday - Veteran's Day
Nov. 24-27 (Thu.-Sun.)	Holiday - Thanksgiving
Dec. 16 (Fri.)	Last day of classes and examinations
Dec. 17 (Sat.)	Faculty grade input ends at noon
Dec. 19, 2011 - Jan 2, 2012 (Mon.-Mon.)	Winter break (No classes scheduled. All College offices open on Dec. 28th and 29th.)

Spring Term

Jan. 3 (Tue.)	Faculty report
Jan. 4 (Wed.)	Evening and weekday 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 - Martin Luther King, Jr. Day
Feb. 18-20 (Sat.-Mon.)	Holiday - President's Day
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
Apr. 2 (Mon.)	Last day to apply for graduation so that name appears in Commencement program
April 6-8 (Fri.-Sun.)	Spring recess
April 27 (Fri.)	Last day of classes and examinations
April 28 (Sat.)	Faculty grade input ends at noon
April 28 (Sat.)	Commencement
April 30 - May 4 (Mon.-Fri.)	Semester break

Summer Term

May 7 (Mon)	Faculty report
May 7 (Mon)	Evening and weekday 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 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 - Memorial Day
June 1 (Fri)	Last day to apply for institutional credit by examination, for individual course withdrawal, and complete withdrawal from college for the first 6-week summer session
June 15 (Fri.)	Last day of classes and examinations for the first 6-week summer session
June 16 (Sat.)	Faculty grade input for the first 6-week summer session ends at noon
June 18 (Mon.)	Evening and weekday 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
June 26 (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 (Wed.)	Holiday - 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 of summer session
July 28 (Sat.)	Faculty grade input ends at noon

Academic Calendar 2012 - 2013

Fall Term

Aug. 23 (Thu.)	Faculty report
Aug. 24 (Fri.)	Fall term preparation
Aug. 27 (Mon.)	Evening and weekday classes begin*
Aug. 31 (Fri.)	Last day to drop classes with 100% refund for regular fall term classes
Sept. 1-3 (Sat.-Mon.)	Holiday - Labor Day
Sept. 8 (Sat.)	Saturday classes begin*
Nov. 5 (Mon.)	Last day to apply for institutional credit by examination, for Individual course withdrawal, and complete withdrawal from college
Nov. 10-12 (Sat.-Mon.)	Holiday - Veteran's Day
Nov. 22-25 (Thu.-Sun.)	Holiday - Thanksgiving
Dec. 21 (Fri.)	Last day of classes and examinations
Dec. 22 (Sat.)	Faculty grade input ends at noon.
Dec. 24, 2012 - Jan 4, 2013 (Mon.-Fri.)	Winter break (No classes scheduled. All College offices open on Jan. 2nd and 3rd.)



**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 Miami. The College offers five 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. Miami Dade College currently offers the following baccalaureate degrees: the Bachelor of Science in Education - Biology, Chemistry Earth & Space Science, Physics, Mathematics, and Exceptional Student Education, the Bachelor of Science in Nursing, the Bachelor of Science in Electronics Engineering Technology and the Bachelor of Applied Science with a major in Public Safety Management, the Bachelor of Applied Science with a major in Supervision and Management, the Bachelor of Applied Science with a major in Film, Television and Digital Production, and the Bachelor of Applied Science with a major in Health Sciences with an Option in Physician Assistant Studies. Additional baccalaureate degrees/programs are planned for the coming years. In addition to these degrees, the College offers numerous short-term occupational certificate programs as well as courses of study to enhance career knowledge through continuing education.

The Open-Door Policy

Miami Dade College's open-door admissions policy provides educational opportunities to community residents and to national and international applicants. Anyone seeking to benefit from the degree or short-term certificate programs, or from the College's student and community services, is encouraged to enroll. The College welcomes all students regardless of 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 and baccalaureate degree seeking applicants may have additional entrance requirements. Transfer students may receive credit for courses that equate to Miami Dade courses.

Mission Statement

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

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

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 innovation 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 that prepares the graduate to work at levels expected by the community
- expects students to meet defined standards
- provides academic programs that 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

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

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

- **A culture of inquiry and evidence** that is characterized by the commitment of faculty, staff and students to accountability for learning excellence through the achievement of measurable learning outcomes, innovative assessment methods and data-driven decisions that foster adaptability in programs and services.

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

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

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

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

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

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

MDC History

The '60s: Opening Education's Doors

Miami Dade College opened its doors as Dade County Junior College in 1960 amid desegregation and the influx of thousands of Cuban refugees. In year one, 1,428 students entered "Chicken Coop College," nicknamed for the original buildings that were transformed into classrooms. The College was open to any county resident who had graduated from high school. The student body included the seven black students who made Dade County Junior the first integrated junior college in Florida. These students, along with the many Cuban refugees seeking to better their lives, paid a \$5 application fee, but tuition was free to all county residents.

By the mid-'60s, the College was already thinking long range. With nearly 15,000 students attending, the original North Campus buildings were bursting at the seams. New construction was under way, with an eye toward not only a second campus in Kendall, but a third in downtown Miami. By 1967,

the College was the largest institution of higher education in the state of Florida, enrolling 23,341 students. Dade Junior had become the fastest-growing junior college in the nation. It enrolled more freshmen than the University of Florida, Florida State University and the University of South Florida combined.

The '70s: Setting the Standard

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

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

The '80s: Maturity and Recognition

By the 1983-84 academic year, the effects of a changing community were reflected at the community college. Thirty percent (nearly 18,000 students) were immigrants, and 46 percent reported that English was not their native language. Almost two-thirds of students enrolled in the College were minorities, and 56 percent were women. Part-time students were common.

In 1984, the New World School of the Arts (NWSA) was conceived. Designed to train future performing and visual artists from high school through the baccalaureate, the school became an educational partnership of Miami Dade College, Miami-Dade County Public Schools and Florida International University, with FIU handing the baton to the University of Florida in 1997. Today NWSA is recog-

nized as one of the premier arts conservatories in the country, with the work of its graduates gracing venues from New York to Los Angeles.

1984 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.

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

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 the College 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 College's Education Review revamped the academic core and electives by modernizing the curriculum to meet the needs of a changing society. Progressiveness was not limited to education, as the re-engineering process also brought improved strategies to human resources, maintenance operations and budget formulation. The College's effort to streamline its bureaucracy and contain costs brought a new financial stability, freeing resources for new staff and program development.

The College's Technology Master Plan put the College on the fast-track in academic and administrative computing throughout the 1990s. The College sought to keep pace with the changing economy and workforce, developing strong partnerships throughout business and industry. More than 50 new degree and short-term certificate training programs were developed, all aimed at emerging industries and South Florida's job market. The College developed multimedia classrooms and the

Virtual College placed the College on the Internet map, allowing students to take classes online. Recognition soon followed: Yahoo! Internet Life proclaimed MDC "WIRED" and voted the College "second best of all colleges and universities." The College's information technology efforts also gained residence in the Smithsonian's permanent collection with a nomination for the Smithsonian Innovation Award.

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

2000: A New Learning Agenda

The new millennium dawned and 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 the College's response to the need for a qualified workforce to fill the thousands of new jobs in Information Technology and Telecommunications. ETCOTA is a dynamic, state-of-the-art 40,000 square-foot facility housing 19 multimedia classrooms and labs equipped with high-end

computers, specialized instrumentation equipment and simulation work-stations. Located at Wolfson Campus, the Center also has a 120-seat auditorium and offices for faculty and staff.

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

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

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

educational, social, cultural and economic growth.

MDC's welcomed President George W. Bush for commencement exercises at Kendall Campus. Bush applauded MDC as "democracy's college." MDC also became the proud steward of the historic Freedom Tower, where many immigrants arrived in the 1960s and 1970s. The building hosted the first U.S. exhibition of the complete etchings of Francisco de Goya and a covenant singing for the College's 10 Learning Outcomes, attended by Sara Martinez Tucker, the U.S. under secretary of education. These general education outcomes and assessment methods drew national praise and represented MDC's unique contribution to new a era of liberal learning and the need to effectively assess student learning.

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



Campuses

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

North

Located on 245 acres in northern Miami-Dade County, this beautifully landscaped campus was the College's first. It was built in 1960 on land that once hosted a World War II Naval air station. The main academic buildings of the Campus surround a serene lake and lush walking paths. North Campus is a major gateway for students wishing to upgrade skills, complete one-year certificate programs, prepare for licensing exams or complete a bachelor's degree.

North Campus is also recognized for its unique programs. The School of Justice offers the Bachelor of Applied Science with a major in public safety management and provides basic training for all police and correctional officers in Miami-Dade County as well as more

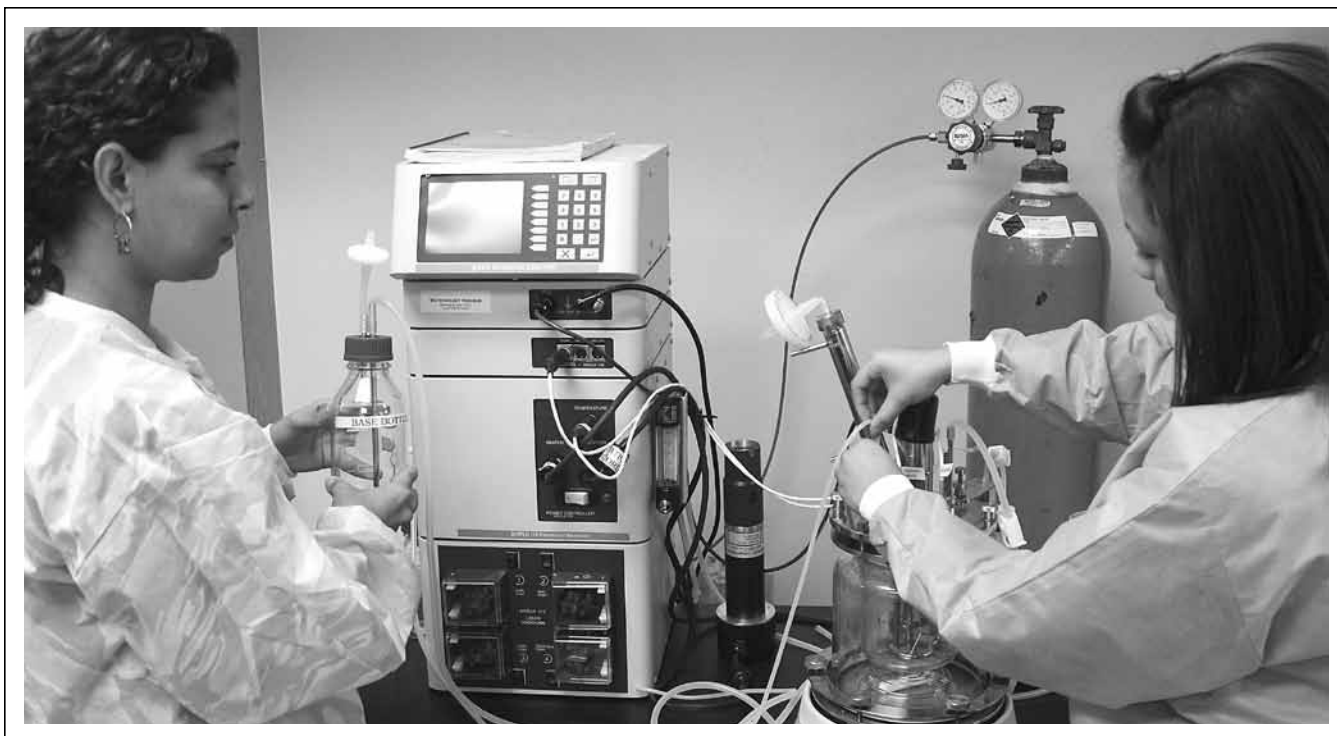
than half the private security personnel. The School of Fire and Environmental Sciences trains all Miami-Dade County firefighters and provides continuing education for municipalities throughout the county and the east coast. A live fire training facility is the only one of its kind in South Florida. Additionally, the School offers programs in chemical and watershed management. North Campus also houses the Funeral Services program that trains morticians and funeral service directors, the only program of its kind in southeastern Florida. Those students wishing to pursue careers in film and digital imaging, television and sound engineering, or radio and music business take advantage of the school of Entertainment Technologies. This School operates the cable station MDC TV, and in 2008 it inaugurated the Televisa Centre for Film and Television Production, a hub for Latin American and Caribbean entertainment industries. North Campus also administers the Carrie P. Meek Entrepreneurial Education Center, which promotes excellence in education, entrepreneurship and workforce preparation.

In January 2010, MDC celebrated the official opening of the College's state-of-the-art science complex at North Campus. The first of its kind in north

Miami-Dade County, the facility will create new educational and career-training opportunities for area residents and beyond. The 90,000-square-foot complex features 21 laboratories with media stations, a Palmetum, a roof-top observatory, classrooms, lecture hall, faculty and administrative offices, botanical garden, greenhouse, an outdoor plaza and café.

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

The School of Entertainment and Design Technology (SEDTE) at North Campus launched a Bachelor of Applied Science (B.A.S.) with a major in Film, Television and Digital Production in 2010. Designed to provide students with a seamless, workforce-driven baccalaureate degree that will enable them to obtain immediate employment in the



field of digital production, thereby meeting South Florida's workforce needs, the B.A.S. will also serve those currently in the production workforce who need to update their skills to increase their career opportunities and wages.

Kendall

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

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

Kendall Campus' 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 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 several exhibitions each year and houses a permanent collection of more than 700 works. The student newspaper, *The Catalyst*, and the campus literary magazine, *Miambiance*, are award-winning publications.

Kendall Campus recently introduced a Bachelor of Applied Science (B.A.S.) in Supervision and Management to prepare graduates for leadership roles and positions in a variety of industries.

The upper-level coursework includes applied management practices, prepares students for supervisory and management opportunities within their technical field, and affords students the opportunity to demonstrate the application of acquired knowledge, skills, and competencies through internships and capstone experiences.

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

Wolfson

Wolfson Campus opened in 1970 by holding classes in the storefronts of downtown Miami. With the completion of the campus' first permanent facility in 1973, Wolfson Campus catalyzed a downtown renaissance by hosting all manner of civic and cultural discourse. It is the only comprehensive urban campus in the city. Located within the city's financial, governmental, technological and cultural hubs, Wolfson Campus capitalizes on its unique geographic resource by offering programs in banking/financial services, business, computer technology, paralegal studies, architecture, economics, hospitality management, engineering, the arts, humanities and social sciences.

Wolfson Campus is home to the Emerging Technologies Center of the Americas (ETCOTA), a state-of-the-art, 40,000-square-foot high-tech training facility. It has fast become the leading provider of skilled professionals for the region's emerging technology industries. The campus also houses the New World School of the Arts, a comprehensive high school and college program, recognized as one of the best performing and visual arts schools in the country.

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

The School of Computer and Engineering Technologies at Wolfson

Campus now offers a Bachelor of Science in Electrical Engineering Technologies. This degree address the local workforce need for baccalaureate-level engineers, providing a smooth transition for MDC's associate of science graduates to earn a degree at a local institution that will support higher-paying careers.

Miami Dade College will open a state-of-the art building in the fall of 2010 to house its International Hospitality program, training students in culinary arts, hotel and event management.

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

Medical 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 Miller School of Medicine, UM/Jackson Memorial Hospital, Veterans Administration Hospital and Miami-Dade County Public Health Service), 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. 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 and the Bachelor of Science in Nursing launched in 2008. More than 20 Allied Health programs are offered, including Physician's Assistant, Opticianry, Emergency Medical Technician, Veterinary Technology, Physical Therapist Assistant, Dental Hygiene and more. Quality medical faculty guide students with support from tutors, labs and the Student Success Center.

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

Homestead

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

Today, Homestead Campus is a modern, six-building complex offering an array of academic programs, including aviation, entertainment technologies, arts and sciences, and nursing. The campus' award-winning structures include a computer courtyard, student learning lab, career center and specialized assessment

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

InterAmerican

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

In the early 1980s, an influx of students from Latin America and the Caribbean led to the addition of day classes and full-time faculty. By 1986, the division had grown to "center" designation, and it moved into a building in Little Havana purchased by the College Foundation. InterAmerican Center became the largest bilingual learning environment in all of higher education.

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

Today, InterAmerican Campus provides service to students in over 200 programs. It is also home to the College's School of Education, which offers bachelor's degree programs in secondary mathematics education, exceptional student education, and secondary science education in the areas of biology, chemistry, physics and earth/space science.

Hialeah

Hialeah Campus became MDC's seventh campus, accorded official campus status by the Florida State Board of Education in 2005. The campus serves the Greater Hialeah-Miami Lakes area, offering day and evening classes six days a week. Courses leading to the Associate in Arts and Associate in Science degrees

are offered. Educational opportunities are also available through career technical education programs, as well as through courses providing career entry in computer technology, office technology, electronics, and early childhood development. Hialeah Campus houses a large and comprehensive English-language training program for speakers of other languages in various instructional formats.

West

Approved by the Florida Board of Education in 2005 as MDC's eighth State of Florida campus, MDC-West opened for classes on March 1, 2006 and operates under the supervision of the North Campus. An exciting learning environment for the greater Miami community, MDC-West serves one of the fastest-growing locales in Miami-Dade County, including Doral and surrounding areas. MDC-West offers courses toward the Associate in Arts and Associate in Science degrees as well as corporate training programs. It houses the College archive and in 2007 became the site of the first public art gallery in Doral.

The Carrie P. Meek Entrepreneurial Education Center

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

The Entrepreneurial Education Center offers a vast array of college credit and 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

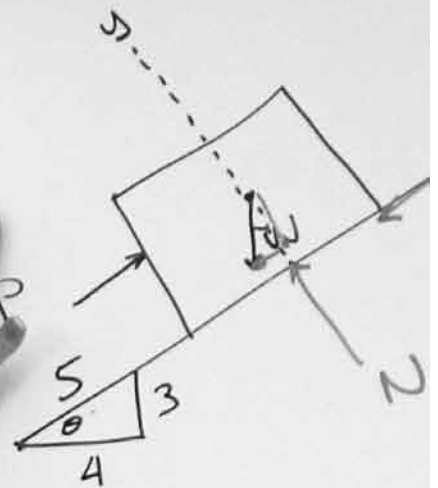
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Admissions Information

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 diploma equivalent (GED), 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 accredited 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 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) An English-language placement test score such as TOEFL or ACT/ESL, for students whose native language is not English. This can be completed upon arrival at the College.
 - b) Proof of mandatory health insurance coverage required prior to registration.
 - c) Official bank letter of financial resources available to support education costs.
 - 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, 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 450 or

more contact hours are required to be tested for basic skills. All those who complete the program must meet basic skills competencies before the 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 Aug. 1, 1987 and applying for admission to an associate degree program must meet the specific general requirements for high school graduation as defined in §1003.43, Florida Statute (FS).

How to Apply

Admissions Procedures and Supporting Credentials

- A. The 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 "Admissions" and "Apply to MDC." 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 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.
- 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 General Education Development Diploma. See the General Educational Development (GED) section 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. The grade of "D" shall transfer and count toward the associate and baccalaureate degrees in the same way as "D" grades obtained by MDC students. 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)

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 College may be required to have official transcript(s) sent directly to Miami Dade College from their previous college(s). Transient students are advised to use Florida's official online student advising system at www.facts.org.

Non-Degree Applicants

Non-degree applicants are students who wish to take selected college courses without the intent of completing an associate or baccalaureate 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 Postsecondary Education Readiness Test (PERT), or provide valid ACT or SAT scores. If, at a later time, these students become associate degree candidates, regular admissions procedures regarding all transcript(s) requirements will apply.

Special Admissions Categories

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

- A. **Dual Enrollment** - Selected high school students (10th, 11th or 12th grades) may enroll for a maximum of two courses each semester, includ-

ing labs, up to a maximum of 24 credits each academic year. Acceptance in the Dual Enrollment program is based on the following:

1. Minimum 3.0 (unweighted) high school grade point average.
2. Permission from the parent(s), high school guidance counselor and principal.
3. A student's expressed intent to pursue a post-secondary degree.
4. Successful completion of the appropriate section of the College's Postsecondary Education Readiness Test (PERT). 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. All information about dual enrollment may be accessed on the Web at www.mdc.edu.

- B. **Early Admission** - Academically superior high school students may attend Miami Dade College in lieu of their senior year in high school. In addition to the requirements for Dual Enrollment above, the applicant for early admission must prepare and present to a high school counselor a comprehensive educational plan justifying early admission. The College will accept for screening only those applicants who have received approval from their principal to apply for early admission.

The applicant also must have advance approval from the high school principal to apply college credits toward high school graduation. Normally, a minimum of 24 college credits meets the requirements for the student's senior year and high school graduation. A special approval form is available in the College's Admissions Office.

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.

The readmission form may be found on the Web site at www.mdc.edu and click on "Prospective Students" then "Admissions."

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

State law requires students to complete college prep courses by the time 12 credits are accumulated.

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

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

Adults who are not high school graduates can obtain an equivalent to a Florida high school diploma by successfully completing the General Educational Development (GED) test. A GED holder is eligible for admission to associate degree programs at the College.

To qualify to take the Florida GED test, individuals must be at least 16 years old and reside in the state. A 16- or

17-year-old must meet College criteria to be eligible to prepare for and take the GED test.

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

Teacher Certification Information

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

College credit courses offered by Miami Dade College, 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 at the Department of Education or campus Academic Advisement offices.

Florida Residency

Miami Dade College policy concerning Florida residency requirements complies with the laws of Florida (§1009.21, F.S.) and Rule 6A-10.044, F.A.C., which are reprinted as follows: §1009.21, F.S. 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 or her parent(s), who is eligible to be claimed by his or her parent(s) as a dependent under the Federal Income Tax Code.

- (b) The term “institution of higher education” means any public community college or state university.
 - (c) A “legal resident” or “resident” is a person who has maintained his or her residence in this state for the preceding year, has purchased a home which is occupied by him or her as his or her residence, or has established a domicile in this state pursuant to §222.17, F.S.
 - (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 or her 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 his or her qualification.

- 2. Every applicant for admission to an institution of higher education shall be required to make a statement as to his or her length of residence in the state and, further, shall establish that his or her presence or, if the applicant is a dependent child, the presence of his or her parent or parents in the state currently is, and during the requisite 12-month qualifying period was, for the purpose of maintaining a bona fide domicile, rather than for the purpose of maintaining a mere temporary residence or abode incident to enrollment in an institution of higher education.
- (b) However, with respect to a dependent child living with an adult relative other than the child’s parent, such child may qualify as a resident for tuition

purposes if the adult relative is a legal resident who has maintained legal residence in this state for at least 12 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 otherwise living apart will be deemed to be this state if either parent is a legal resident of this state, regardless of which parent is entitled to claim and does in fact claim, the minor as a dependent pursuant to federal individual income tax provisions.
- (3) An individual shall not be classified as a resident for tuition purposes and, thus, shall not be eligible to receive the in-state tuition rate until he or she has provided such evidence related to legal residence and its duration as may be required by officials of the institution of higher education from which he or she 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 or her legal residence in this state.
 - (b) A person shall not be deemed to have established or maintained a legal residence in this state and subsequently to have qualified or continued to qualify as a resident for tuition purposes solely by reason of marriage to a person domiciled in this state.
 - (c) In determining the domicile of a married person, irrespective of sex, the fact of the marriage and the place of domicile of such person's spouse shall be deemed relevant evidence to be considered in ascertaining domiciliary intent.
- (6) 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 or her resident status for tuition purposes solely by reason of serving, or, if such person is a dependent child, by reason of his or her parent's or parents' serving, in the Armed Forces outside this state.
- (8) A person who has been properly classified as a resident for tuition purposes but who, while enrolled

in an institution of higher education in this state, loses his or her resident tuition status because the person or, if he or she is a dependent child, the person's parent or parents establish domicile or legal residence elsewhere shall continue to enjoy the instate tuition rate for a statutory grace period, which period shall be measured from the date on which the circumstances arose that culminated in the loss of resident tuition status and shall continue for 12 months. However, if the 12-month grace period ends during a semester or academic term for which such former resident is enrolled, such grace period shall be extended to the end of that semester or academic term.

- (9) Any person who ceases to be enrolled at or who graduates from an institution of higher education while classified as a resident for tuition purposes and who subsequently abandons his or her domicile in this state shall be permitted to 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 or her domicile in this state within 12 months of such abandonment and continuously maintains the reestablished domicile during the period of enrollment. The benefit of this subsection shall not be accorded more than once to any one person.
- (10) The following persons shall be classified as residents for tuition purposes:
- (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), F.S., 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 state university within 50 miles of the military establish-

ment 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, F.S., 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 States citizens.
- (i) United States citizens living outside the United States who are teaching at a Department of Defense Dependent School or in an American International School and who enroll in a graduate level education program which leads to a Florida teaching certificate.
- (j) Active duty members of the Canadian military residing or stationed in this state under the North American Air Defense (NORAD) agreement, and their spouses and dependent children, attending a public community college or university

within 50 miles of the military establishment where they are stationed.

(11) The Florida Board of Education and the Board of Governors shall adopt rules to implement this section.

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

6A - 10.44 Residency for Tuition Purposes

The purpose of this rule is to establish consistent policies for the classification of students as residents for tuition purposes. The determinations of classification or reclassification shall be consistent to assure that students are classified the same regardless of the institution determining the classification.

- (1) The classification of a student as a Florida resident for tuition purposes by an institution or entity governed by Section 1009.40, Florida Statutes, shall be recognized by other public postsecondary institutions to which the student may later seek admission, provided that student has attended the institution or entity making the classification within the last twelve (12) months and the residency is noted on the student's transcript. Once a student has been classified by an institution or entity as a resident for tuition purposes, 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.
- (2) 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. Bureau of Citizenship and Immigration Services with no date certain for departure shall be considered eligible to establish Florida residency for tuition purposes.
- (3) Nonimmigrants 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 - Intracompany 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.
 - (n) Visa category T - Victims of trafficking, who cooperate with federal authorities in prosecutions of traffickers, and their spouses and children.
 - (o) Visa category V - Spouses and children of lawful permanent residents.
- (4) 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.

The above Florida residency laws and rules are for informational purposes. There are additional state guidelines that govern the documentation required to prove Florida residency. Please refer to the Admissions Office at any campus for further information or consult the Web site at www.mdc.edu and click on prospective students.

Specific Authority 229.053(1), 240.325, ES., Law Implemented 240.1201, ES. 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, §(101)(a)(15) (F or M) to enroll non-immigrant alien students. In addition to following the regular admission procedures, international students are required to provide English language placement test scores, such as TOEFL if a non-native speaker, proof of mandatory health insurance coverage, and official bank letter of financial resources to support education costs.

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

Deadlines - International applicants should apply at least three months prior to enrollment at the college. International mail, transcript verifications, internation-

al money transfers, consular appointments, travel and housing arrangements and advisement/testing requirements all take a great deal of time and may cause delays. Applications for admission, including all admissions credentials and TOEFL test scores (if available), must be received at least 90 days prior to the start of the term in which the applicant plans to enroll. The Test of English as a Foreign Language (TOEFL) is usually administered several times each year at centers in most countries of the world. Information and application forms for TOEFL may be obtained from international centers, by writing to TOEFL, Box 899, Princeton, NJ 08541, USA, or by visiting their Web site at www.toefl.org.

Deadlines for International Student Admissions

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

Readmission - Readmission to the College for the international student requires submitting a new application for admission, new official transcripts of post-secondary education attempted since last attendance at Miami Dade College, official bank letter of financial resources to support education costs and a letter explaining the circumstances requiring readmission. Transcript(s) in languages other than English shall include official certified English translations, authentic verifying statements and signatures provided by members of the National Association of Credential Evaluation Services (NACES) <http://www.naces.org/>.

English Language Requirements

- Miami Dade College courses are taught in the English language. The College will provide English language training for students who have insufficient English language skills. English language test scores determine placement into college courses. Students with TOEFL scores (or an equivalent score on other standardized tests) of 550 (213 on the computerized version or 79-80 on the Internet-based version) or higher are eligible to take the Basic Skills Assessment Test to determine placement in courses leading to an Associate degree. Alternative placement tests will be administered to students without TOEFL scores or with scores below 550 (213 on the computerized version or 79-80 on the

Internet-based version). Students requiring English language training may need to attend additional semesters at the College in order to complete all associate degree requirements.

Financial Requirements - All international students must have sufficient funds to pay full college matriculation and non-resident fees, textbooks, living expenses, transportation expenses, health insurance coverage and other incidental expenses while attending college in the United States. Financial requirements are included with the application for admissions form. Documentary evidence of means of financial support must be provided to the College to be issued a Certificate of Eligibility (SEVIS I-20). This evidence is also required by the American Embassy or Consulate when applying for a student visa to enter the United States.

Students must have these funds available when they register for classes each term. College financial aid is not available to students on visa. See the "Fees" section in this catalog for details con-

cerning matriculation, non-resident and other fee requirements.

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

Health and Accident Insurance

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

Duration of Status - International students on a visa are admitted to the United States for the entire time estimated for them to complete their approved program of study as indicated on the SEVIS I-20. Students must fulfill the following conditions to maintain Duration of Status: pursue a full course of study at the educational institution they are



authorized to attend, make normal progress, keep a current passport that is valid for at least six months, maintain a valid SEVIS I-20 and not accept off-campus employment without USCIS approval.

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

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

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

School Transfer - Completion of a degree program at the designated educational institution is recommended. International students who wish to transfer to another school must officially do so by requesting a release of their SEVIS record to the school they wish to transfer to and by providing an admission letter. That institution will notify Immigration of the student's 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 - International students are required by USCIS regulations to be enrolled full-time. Student(s) 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.

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

1. Do not register at the College by the first day of the semester.
2. Do not carry a full course of studies.
3. Do not attend classes to the extent normally required.
4. Become employed without authorization.
5. Terminate their attendance at the College.

Visa Student Advisement - Advisors are available at each campus to advise international students concerning academic programs and course objectives. 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.

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

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

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

A. Continuing Workforce Education Courses - These courses are for those students who have had prior employment in jobs related to the enrolled course or are presently employed in a career related to

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

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

Fees and Refunds

Fees are contingent upon approval of the District Board of Trustees and are subject to change. Special fees may also apply. Important note: Tuition and fee rates are determined annually by state and Board of Trustee processes. They almost always change from year-to-year. The best way to determine current tuition and fee rates is to check on the Miami Dade College Web site, www.mdc.edu, or to check at the Admissions & Registration Office at any MDC campus. The fees listed below are an example - for planning purposes only - of rates for the 2010-11 year only.

A. Registration Fees 2010-11 - College Credit Courses

1. Florida Residents*
Matriculation
Total. \$94.40 per credit
2. Non-Florida Residents*
Matriculation
Total. \$345.68 per credit

*See Florida Residency section for definitions

B. Registration Fees 2010-11 – Vocational Credit Courses

1. Florida Residents*
Matriculation
Total \$77.86 per vocational credit

(Special fees may also apply)

2. Non-Florida Residents*
Total \$311.48 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 \$105.22 per credit
4. Non-Florida Residents*
Total \$538.18 per credit

C. Special Fees and Charges

1. Admission Application fee - a \$20.00 non-refundable college credit application fee is charged for processing a student's first application.
**Please note that some programs may require a different application fee. For further information contact the program director.*
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 - out of state fee charged for students repeating courses more than allowed by state law (This is on a third or subsequent attempt).
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 on the student schedule.
6. 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 (F.S.) 1009.28 and 1009.285 has enacted policies affecting the assessment of fees for community college students who repeat a course due to withdrawal or failure. The fee for a third attempt of the same course is equal to 100 percent of the cost of instruction. Since state law prescribes student fees to equal 25 percent of the cost of instruction, the fee for a repeated course is approximately four times that of an initial attempt.

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

Excess Hours Advisory

This advisory affects students who enter a community college or a state university for the first time in the 2009-2010 academic year and thereafter. Section 1009.286, Florida Statutes, establishes an "excess hour" surcharge for students seeking a bachelor's degree at a state university - including a state community college offering bachelor's degrees. "Excess hours" are defined as credit hours that go beyond 120 percent of the credit hours required for a bachelor's degree program. For example, if the program length is 120 credit hours, all credit hours registered beyond 144 (which is 120 percent of 120) may be subject to the surcharge. The amount of the surcharge is equal to 50 percent of the tuition rate for each excess credit hour.

All students whose educational plan may include earning a bachelor's degree should make every effort to enroll in and successfully complete those courses that are required for their intended major on their first attempt. Florida college students should identify a major or "transfer program" early and be advised of admission requirements for that program, including approved common prerequisites. Course withdrawals and/or repeats, as well as enrollment in courses not essential to the intended major, may contribute to a potential excess hours surcharge.

Refund Policy

Refunds of matriculation and tuition fees are made only if students withdraw from (drop) the course via the Web (and the drop is confirmed) or at any campus Registrar's Office using a withdrawal card by the 100% refund deadline printed on the class schedule.

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

1. Refund Deadlines – College Credit and Vocational Courses

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

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

For a Term With This Number of Weeks	Student Has This Many Class Days to Make an Official Withdrawal to Receive a 100 percent Refund
1 - 3	1
4 - 5	2
6 - 10	3
11 - 14	4
15 - 16	5
17 - 20	6
21 - 23	7
24 - 26	8
27 - 29	9
30 - 32	10

A procedure exists for handling specified exceptions to the refund policy. See the "Petitions Procedure" in the *Students' Rights and Responsibilities Handbook*.

2. Refund Deadlines - Continuing Education Courses

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

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

Payment Policy

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

2. *Payment of Fees by Check* - Checks may be remitted to Miami Dade College for payment of fees owed. Check payments are also accepted via the MDC Web page. All checks accepted in payment for fees must be drawn on a United States bank and must be payable to the College. If a student submits a check exceeding the amount owed to the College, he or she will not get cash back. The College will issue the student a MDC OneCard.

Upon receipt the student will have to activate the card and choose their refund method preference via the HigherOne web page (www.MDCOneCard.com). If the overage is less than \$250, then the College will issue the student a check, but the student will have to wait between nine and 20 business days. If the overage is more than \$250, the check

will not be accepted and the student will have to submit a new check.

Miami Dade College will accept a maximum of \$21,000 of foreign fund checks, for any one student, for any year, July 1 to June 30. Any bank fees charged for processing foreign fund checks will be paid by the student. A student who remits a United States bank check where the funds originated in a country other than the United States will be required to show his or her valid passport before receiving any excess funds.

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

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

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

For further information, contact Student Financial Services.

Florida Pre-Paid Tuition Program

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



Financial Aid Information

Student Financial Aid

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

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

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

Philosophy of Financial Aid

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

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

What is Financial Need?

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

How to Apply

To be considered for most types of financial assistance, a student must complete the Free Application for Federal Student Aid (FAFSA). The FAFSA is available online at www.fafsa.ed.gov, at local high schools or any campus Financial Aid Office. The application process begins Jan. 1 for the academic year that begins in August. Applications completed on the Web are more accurate and have a faster turnaround. The results of the federal analysis are transmitted electronically to the College and are also sent to the student in the form of a Student Aid Report (SAR) via 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.

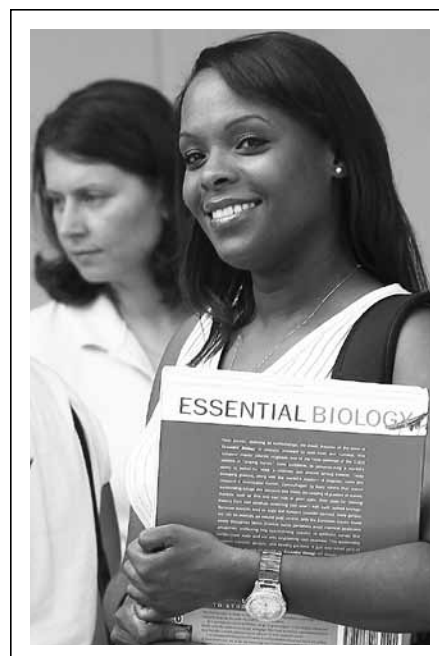
Application Priority Deadline

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

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



cessed until verification is complete and all corrections have been made.

Reapplying

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

Basis on Which Financial Aid is Granted

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

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

Who Qualifies for Financial Aid

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

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

Additional requirements may apply depending on the financial aid awarded to you.

Refunds and Repayments

Federal regulations mandate that financial aid recipients who drop all

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

Miami Dade College Student Assistance Programs

Scholarships and Grants

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

Short Term Loans

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

Tax Help for Educational Expenses

The Taxpayers Relief Act of 1997 offers several tax credits and deductions for educational expenses. For more information regarding these programs, go to the IRS 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: finaid@mdc.edu

Call us Essential ... Call us the College

Student Services

STUDENT SUPPORT SERVICES

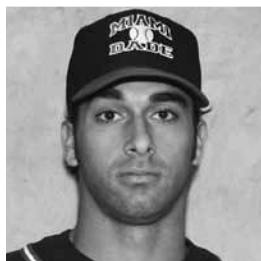
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Student Support Services

Advisement

The mission of the Academic Advisement and Career Services Department at Miami Dade College is to provide students with a quality, learning-centered experience that enables them to establish and fulfill their educational and career goals. By facilitating an effective decision making process regarding educational, transfer and career goals, advisors promote appropriate course selection and assist students with referrals to internal and external resources and support services.

A staff of full-time Academic and Career Advisors representing diverse educational and professional backgrounds is available to provide these services. Advisors provide students assistance with career exploration, skills assessments, and guidance on how to best match student's skills and abilities with the right career path. Once a career path is chosen, advisors will provide important Postsecondary Education Readiness Test (PERT) information regarding required courses, program information, graduation status and much more. All students are encouraged to see an advisor after admission to the College, after assessment testing has been completed and before registration. At that time, the student and the advisor may chart an appropriate choice of courses based on the student's academic performance, results from the Basic Skills Assessment Test (ACCUPLACER/PERT, SAT, or ACT), the student's chosen program and outside commitments. Returning students with declared majors should seek advisement from faculty in their major department.

Students are especially encouraged to consult with an advisor in the term preceding the term of expected graduation. Conferring of graduation eligibility at this time may be crucial to a student's success in meeting his or her career goal. Advisors are also available to assist students in making career choices. During enrollment at Miami Dade College, students are encouraged, and sometimes required, to see an advisor

when they encounter academic problems or contemplate a change in educational goals. In addition to helping students chart their educational and professional careers, advisors work with students to resolve problems affecting academic performance. Students may be referred for testing or to community agencies when appropriate, as a means to aid decision-making.

Degree Audit

The Degree Audit is a tool used for advising purposes only. The catalog and/or the MDC Web site 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 Postsecondary Education Readiness Test (PERT). Students may schedule a convenient time to take this test. The PERT 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.

The Florida 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 PERT, 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 PERT. All scores pre-

sented must have been obtained within the past two years. Note: Beginning with the 2007-1 fall term and at least through the 2009-2010 academic year, the state of Florida is allowing MDC to use FCAT scores to exempt students from placement testing as part of an FCAT Pilot Project. To find out what minimum scores a student needs to be excused from taking the PERT, or for other reasons why a student may not be required to take the PERT, students are asked to call the campus Testing Department. This information may also be acquired by visiting the Testing Information Web site, accessed from MDC's Homepage (www.mdc.edu) by clicking on "Current" or "Prospective Students," then "Testing Information" and then "Other Testing Information." Information on the PERT is also available via the Florida Department of Education web site at www.fldoe.org/asp/fclept/. If a student does have to take the PERT, he or she should utilize the resources available on the college-wide Test Preparation web site, as well as workshops offered through Community Education and other departments, before he or she takes the PERT.

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

If a student's scores on one or more of the subtests of the PERT fall below minimum passing scores established by the Florida Board of Education, he or she must enroll for at least one course in the 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 Post-secondary Career Technical Education programs (CTE) to assess the basic skills level of students entering programs of 450 or more contact hours. MDC offers the Tests of Adult Basic Education (TABE) for these career certificate seeking students. The minimum passing scores vary among the career certificate programs, so a student must check with his or her advisor for these scores. A student must take the TABE within the first six weeks of admission into the program. Academic support labs are available to prepare students to take the TABE. If a student is enrolling in an Adult General Educational program, he or she also must take the TABE.

Adult Education students without English proficiency are given the College-approved alternate for placement into appropriate Adult English for Speakers of Other Languages (ESOL) and English Literacy for Career and Technical Education (ELCATE) program courses. Students who are not literate in their native language are administered a Native Language Literacy Screening Device to determine their initial placement level. The Basic English Skills Test (BEST Plus) is used for pre and post-testing off-campus Literacy for Household Grant ESOL

students. Upon completion of the English instructional curriculum adult education students transitioning to career 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 MDC's School of 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 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 on all of the campuses. Hours vary during the term and at each location, with longer hours in the early weeks of the semesters.

Locations and the phone numbers:

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

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

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

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

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

Medical 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.

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

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

The best time to purchase textbooks for an upcoming term is at the beginning of classes. If a student has a schedule and/or syllabus, he or she can purchase textbooks before the class begins. When purchasing textbooks, a student should bring his or her schedule as the bookstore is organized alphabetically by course abbreviation and by reference number (6-digit code identifying the class). If a student cannot locate textbooks, the professor's name, or reference number on the shelf tags, the student should ask for assistance at the customer service desk. The store's textbook manager and sales staff can assist in answering questions. If a student purchases a textbook before attending class and later finds that the textbook is incorrect, it can be returned if the student has the original cash register receipt. The textbook must also be in the original shrink-wrap (if applicable), and in the exact condition as when purchased. The refund policy and dates for each term are posted in all of the bookstores and on the cash register receipts. If a student needs any information concerning the refund policy and dates, the student should contact the campus bookstore at the phone number listed above. During the



refund periods, new and used textbooks will be fully refundable when returned in the same condition as purchased. If a textbook is not in the same condition as originally purchased, the textbook will be returned at 25 percent markdown from the original price. If the student does not have the original receipt the book can be sold back to the bookstore at buyback. Shrink-wrapped packages are 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 percent markdown from the original price.

Any textbook purchased during the last week of classes or during final exams is not fully refundable, but may be sold back at buyback. If a student has textbooks 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 percent of the new price whether it was purchased new or used. Another feature the bookstore offers is online ordering of textbooks at www.foollett.com. Students can either log in directly to www.foollett.com or upon registering for a class on the MDC Web site, proceed through Book Now with a link to foollett.com to purchase the textbooks required for their class. By selecting the state, institution, and classes, as well as purchasing information, a student may order textbooks and have them delivered directly to his or her home or have them ready for pick up at the bookstore on campus.

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 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 online 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 available for the entire term. Students often need to refer to their schedule for important information.

College Level Academic Skills (CLAS)

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 sys-

tems. Before a student can receive an Associate in Arts degree or Bachelor's degree, or advance to the upper-division at a Florida public institution, 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, ACT, PERT, or the College-Level Academic Skills Test (CLAS - through 6/30/2009) which meet or exceed the minimum requirements. (The Advisement Office can tell students what the current minimum GPA and current and past scores are.) If a student's GPA (or test score) does not meet the minimum requirements, he or she can take the PERT for CLAS purposes.

Students may retake any PERT for CLAS purposes subtest until a passing score is obtained, but must follow CLAS Presentation and Remediation guidelines before retaking a subtest for the third (or higher) attempt. If a student has completed all required coursework, taken and failed any test combination for CLAS purposes at least four times, a request for a waiver for the related skill area may be initiated. Students should contact the campus Advisement Office for details. Students with disabilities who fail to achieve minimum CLAS requirements via any combination of the test or course options may be eligible for a waiver of the CLAS requirements based on a specific disability which impacts the ability of the student to perform appropriately in the area in which a waiver is being sought. The specific provisions for this process are located in College Procedure 4055, Accommodations Provided for Students with Disabilities and a summary of these provisions is available in the Students' Rights and Responsibilities Handbook, which is available under 'Resources' in the 'Current Students' section of www.mdc.edu. Students with disabilities who have not been able to meet requirements for graduation through course work or examinations should contact their campus ACCESS Department.

Students who do not meet the CLAS requirements by any combination of available subtests or courses will not be awarded the Associate in Arts degree. Students seeking entry into

baccalaureate programs at MDC must meet CLAS requirements (either with passing CLAST scores prior to July 1, 2009, course GPA, or CLAS eligible ACT/SAT/CPT scores). CLAS requirements must be met in order for students to be fully admitted to the upper division programs at MDC. Students who are otherwise qualified for admission to baccalaureate programs and have met three of the four CLAS requirements may enroll for up to 36 semester credits in MDC upper-division programs (a total of 96 combined credits). The remaining CLAS requirement must be met in order for the student to register beyond 96 credits.

If students have any questions regarding CLAS, they should contact the campus Advisement Office for details. Students should also visit the Testing Information Web site, accessed from MDC's Homepage (www.mdc.edu) by selecting Current or Prospective Students, then, Testing Information, then CLAS Information.

Library and Media Services

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

The libraries offer a variety of services beyond the traditional scope of lending materials and providing in-house reference. Additional services include 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 more than 35,000 media titles in a variety of formats, including the latest in multimedia resources and technology, all of which are available to students and faculty. The Media Services Departments also sup-

port 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 (MCC) assists students in pre-select programs as they transition from other campuses. Staff help guide students with course selection, the development of educational plans, and the application process for the selective admission programs at MCC.

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 Web site.

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 CLAS 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 College is not legally or financially responsible for medical care and does not provide the services of a physician on any campus. The Fire Department Rescue Service provides first aid emergency health service.

At the time of application, each student should provide, on the appropriate line of the application form, the name of a person to contact in an emergency. If that contact person changes while the student is attending the College, the student should update that information 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 offers students and employees diagnosed as HIV-positive the same opportunities and benefits offered to other students and employees. These include access to educational programs, advisement and counseling services, employment opportunities and financial aid. The College is committed to a policy of 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 task-force responsible for overseeing the appropriateness of this management and all campus HIV education activities.

Automobiles on Campus

Student and faculty parking areas are designated on each campus. The MDCard may be required for access to a lot or a garage. Students must have the MDC parking sticker affixed to their car's rear window or bumper. 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 stu-



dents need to check with security if planning to leave a car after hours.

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.

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

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

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

West Campus has numerous parking lots located around the building.

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

Release of Student Information

Miami Dade College has a 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 Florida State Department of Education, Florida 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 U.S. Public Law 93-380 (FERPA), and §229.782, E.S., students at Miami Dade College have the right to inspect their educational records and to correct such records if warranted. All student records are open for inspection and review by the student unless he or she waives this right. These records are protected from release of information without written consent. The parent(s) of a dependent student, as defined in Title 26 U.S.C. §.152 of the Internal Revenue Code, also has 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:

- a. Student name
- b. Major field of study
- c. Participation in officially recognized activities and sports
- d. Weight and height of members of athletic teams
- e. Degrees, honors and awards received
- f. Enrollment status (full-time, half-time, not enrolled)

The office of the Dean of Student Services or designee will 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.

FERPA information can be found on our Web site at:
www.mdc.edu/main/ferpa/default.asp

Grievance Policy

In compliance with federal and state requirements, the College has an institutional grievance policy for students alleging discriminatory practices or sexual harassment. The initial contact point for students to lodge a claim of discrimination or sexual harassment is the office of the Dean of Student Services at Kendall, North and Wolfson campuses, Dean of Students and Administration Support Services at Medical Center and InterAmerican campuses, and the Dean of Academic and Student Services at 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 hous-

ing. 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 contact the Student Life Office at any campus for details.

Students' Rights and Responsibilities

The Students' Rights and Responsibilities publication, available to all students, sets forth the rights of students with corresponding responsibilities. This document details the relationship between student and College. The document covers protection in academic pursuits and privacy of records, sets forth the conditions for responsible behavior on the campus and lists the various appeal mechanisms and grievance procedures available to students. The section on student discipline complies with Rule 6A-14.56, F.A.C., and § 240.132, 240.133 and 877.13, F.S. This section concerns control and discipline of 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, Teatro Prometeo presents a number of productions in Spanish, and the New World Players give performances in English, both on and off campus. Interested students should contact the campus theater department.

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

Intercollegiate Athletics

Students with outstanding athletic abilities may try out for one of the following intercollegiate sports teams: men's, basketball or baseball; women's, basketball, volleyball or softball. Miami Dade College teams, all known as The Sharks, compete at the highest level of the National Junior College Athletic Association. Each year, Shark teams travel around the state to compete against other 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-American teams and other special awards. MDC

offers first-rate athletic facilities, training and conditioning services and a talented coaching staff. For information on trying out for an athletic team, contact the college director of athletics, based at Kendall Campus.

Student Government Association

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

Student Publications

The College publications, the Falcon Times at North, the Catalyst at Kendall, the Metropolis at Wolfson, the Antidote Newsletter at Medical Center and the Urbana at InterAmerican, are under the guidance of advisors who work with student editors and staff members. These publications serve as the media for student expression on matters involving the curricular and extracurricular activities of the College. These publications also provide training for those interested in journalism.

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

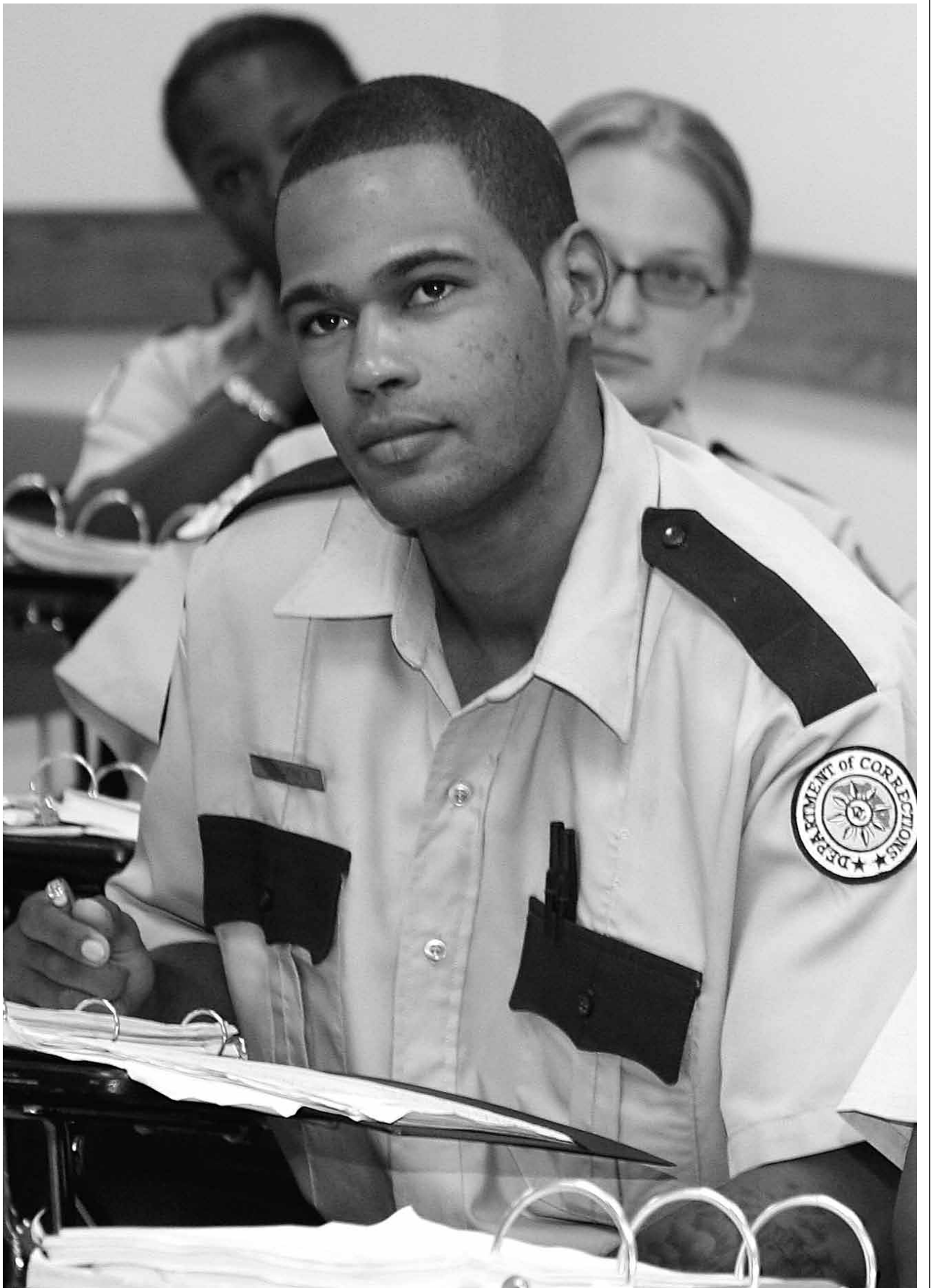


Call us Essential ... Call us the College

Academic Regulations

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Academic Regulations

Attendance in Class

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

Students expecting an extended absence should notify the Dean of Student Services.

Audit

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

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

Auditing a class costs the same as enrolling for credit, 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 Web site following the end of the term.

Grade Point Average (GPA)

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

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

Example:

ENC 1101	3 credits	Grade A	(4 points) = 12
HUM 1020	3 credits	Grade C	(2 points) = 6
ISS 1120	3 credits	Grade F	(0 points) = 0
ISS 1161	3 credits	Grade B	(3 points) = 9
ART 1300C	3 credits	Grade C	(2 points) = 6
DAA 1160	1 credit	Grade B	(3 points) = 3
Total Credits 16		Total Points 36	
Divide 36 points by 16 credits = 2.25 GPA			

In order to receive an A.A., A.A.S. or A.S. 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, Hialeah, Homestead, Medical Center, North, Kendall, Wolfson or InterAmerican Campus.

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

Student Ombudsman

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

The ombudsman listens to student concerns and directs students to the appropriate College/campus office and College procedures/policies. Such referrals should be made for 1) Grade Appeals, 2) Petitions for Withdrawals and Refunds, 3) 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 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 at least two-thirds of the credits for which he or she has 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 percent of the number of credits registered to complete the degree or certificate. After the 150 percent mark, benefits will terminate. This applies to all registered credits, including courses 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 percent rule. Students who meet or exceed the 150 percent are no longer eligible to receive federal/state financial aid. For extenuating circumstances, students may appeal through the Petition for Financial Aid Waiver.

Standards of Progress for Veterans - A student receiving educational benefits from the U.S. Department of Veterans Affairs (V.A. student) must maintain satisfactory progress (cumulative GPA of 2.0 or better) at the end of any term. A V.A. 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 V.A. student has not attained a 2.0 cumulative GPA by the end of the probationary period, the student’s V.A. educational benefits will be terminated. After one term has elapsed, the student may petition the school to be re-certified for V.A. 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 Career Technical Education programs will have their V.A. 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 College, a student agrees to abide by the Code of Conduct of the College. A student who violates the Code of Conduct while on College property or while participating at a College-sponsored event may be suspended.

Transcript of Records

A transcript is a printed list of all the courses taken, the number of credits and grade earned. Transcripts summarize the GPA and also indicate the receipt of any certificates or degrees. Students must submit a written request to the Registrar's Office in order to have a transcript sent to a particular location.

Students will be unable to get a transcript if an obligation to the College has not been satisfied. These obligations include unpaid fees or overdue loans, as well as the return of library books, audiovisual media and athletic equipment.

Withdrawals

Withdrawal from Courses

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

Administrative Withdrawal from Courses

Miami Dade College reserves the right to cancel courses and/or programs for which there is insufficient enroll-

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

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

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

College Withdrawal Policy for Credit and College Prep Courses

Effective the Fall Term of 1997, students who enroll in the same course for the third time (or subsequent time) will not be permitted to withdraw from (drop) the course. Attempts taken by students prior to the Fall Term 1997 will not be counted as an attempt for the purposes of this policy. An attempt is counted any time students officially enroll, have a schedule validated for a course, and do not withdraw from (drop) the course with a refund. For example, a

student enrolled in a course in the Fall Term 1997 and received an "F" grade in the course. The student enrolled again in the same course in the Spring Term 1998 and found it necessary to withdraw from (drop) the course with a grade of "W" (Withdrawal). The student enrolled again for the third time in the course for the Summer Term 1998. The student needed to withdraw again from the course. This was not permitted, and the student received a valid grade of A, B, C, D, E, S, P or U at the end of the term.

Cost to Re-Enroll in a Course

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

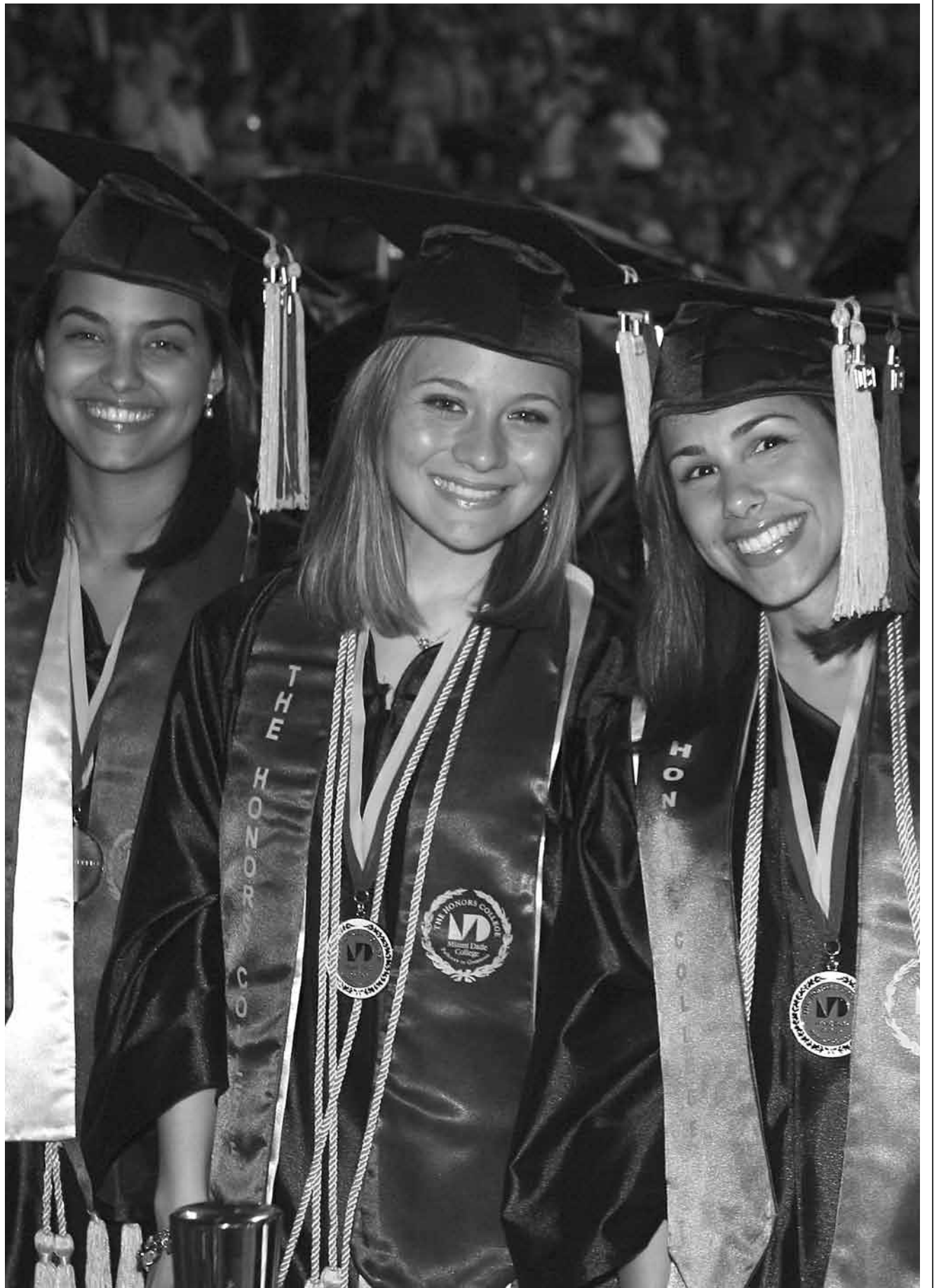


Graduation Requirements and Transfer Information

Call us Essential ... Call us the College

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Graduation Requirements and Transfer Information

Graduation Requirements

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

Continuous Enrollment for Graduation Requirements

The College graduation requirements are based upon the year and term of entry to Miami Dade College. Those requirements apply as long as the student continues to register for at least one term during any 12-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 (CLAS) or a state-approved alternative for the Associate in Arts degree, apply to all students, regardless of whether the student has been continuously enrolled.

Requirements for All Associate Degrees

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

Baccalaureate Degree

Required Hours and GPA

Successful completion of a minimum of 120 semester hours.

A minimum GPA of 2.0 on all course work taken at Miami Dade College and an overall 2.0 average on all college-level work attempted. Note: higher grade point averages may be required for specific majors.

Thirty (30) semester hours must be earned in courses numbered at the 3000 or 4000 level.

Final 30 Credit Hours in Residency Requirement

Bachelor's degree-seeking students must complete the final 30 semester hours credit toward their program of study in residence at Miami Dade College. In extenuating circumstances, a maximum of 6 hours of the final 30 semester hours credit may be completed at another accredited senior institution, or by another means, with the approval of the academic dean. College-Level Examination Program (CLEP) credit earned may be applied to the final 30 semester hour requirement, provided that the student has earned at least 30 semester hours credit at Miami Dade College.

General Education, Gordon Rule and CLAS

Satisfactory completion (a minimum GPA of 2.0) of Miami Dade College General Education courses (36 semester hours) as follows:

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

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

Satisfactory completion of the Florida CLAS or approved alternative.

Computer Skills Competency

All MDC degree-seeking students and students seeking a college credit certificate in School of Business programs with 12 or more credits must demonstrate computer competency prior to graduation. Students demonstrate this competency by passing the MDC computer competency test, currently known as CSP (Computer Skills Placement) examination or by enrolling in and successfully completing an equivalent course. No credit is awarded for successful completion. Additional information is available from MDC's Web site at www.mdc.edu/testing_information (by clicking on Other Testing Information, then Computer Competency).

Requirements for Admission to Upper Division

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

General Education Requirement

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

Foreign Language Requirement

The state of Florida requires that baccalaureate degree-seeking students be proficient at the intermediate level in one language other than English. Students who did not demonstrate foreign language proficiency prior to admission may satisfy the requirement by completing course work through the 2000 level of a classical or modern for-

sign language. A student taking course work to fulfill the foreign language requirement must earn at least a C or better in at least 2 courses (8-10 credit hours) of sequential foreign language at the secondary level or the equivalent of such instruction at the postsecondary level. Native speakers of another language and other students who wish to demonstrate proficiency by means other than course work should consult the ESL/Foreign Language Department for testing. **Miami Dade College will accept American Sign Language (ASL) through SPA 2614C and SPA 2615C (American Sign Language 3 and 4) for the foreign language requirement.**

Associate in Science/ Associate of Applied Science Degrees

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

Requirements for Associate in Science/Associate of 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 and Miami Dade College Student Learning Outcomes

General Education: Student Learning Outcome Foundation

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

Student Learning Outcomes: A Promise between Students and Faculty

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

1. **Communications** - Knowing what you've learned doesn't mean much if you can't express it. All students should be able to communicate well.
2. **Quantitative Analysis** - Numbers are everywhere - from the calories in your favorite soda to political polls. All students should be able to process, understand and accurately analyze numerical data.
3. **Critical/Creative Thinking and Scientific Reasoning** - There's no guarantee that you'll know all the answers by the time you graduate, but you will develop the skills to

think through a situation and arrive at a logical conclusion.

4. **Information Literacy** - Why are there concerns about Wikipedia as an acceptable research tool? By the time you graduate, you'll know the pros and cons of using Internet resources and be able to locate relevant and accurate information resources.
5. **Global, Cultural and Historical Perspectives** - Thanks to the World Wide Web and telecommunication, we are aware of many ways of life across the world. In order to succeed in this global society, students need to develop an appreciation of various cultures and an understanding of different points of view.
6. **Personal, Civic and Social Responsibility** - While at MDC, you'll develop skills to fulfill not only your personal responsibilities, but also your roles as citizens and members of a global community. For example, John Donne said, "No man is an island." Everything you do and say has an impact on those around you.
7. **Ethical Thinking** - Prevalent among newspaper headlines from the past ten years are terms like "Stem Cell Research," "Cheating in High School," and "Euthanasia." Your course of study will help you develop strategies and values in ethical thinking to help you understand these and other controversial issues.
8. **Computer and Technology Usage** - You can probably surf the net and send e-mails already, but there are many other powerful tools at your fingertips. Before you graduate, you will learn how to use word processing, spreadsheets, databases and presentation programs as well.
9. **Aesthetic Appreciation** - Appreciating the creative process is an essential part of being a well-rounded individual.
10. **Natural Systems and the Environment** - What exactly is trans fat? Is tap water a pure substance or a mixture? How does carbon dioxide affect our atmosphere? An understanding of natural systems is important in caring for your health and the world around you.

General Education Requirements for the Associate in Arts 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 (updated information located at <https://sisvsr.mdc.edu/ps/sheet.aspx>):

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 2300 Advanced
Communication Skills

**LIT 2480 Issues in Literature
and Culture

**SPC 1017 Fundamentals of
Speech Communication

3. HUMANITIES (6 credits)

Students must take 3 credits from Group A and 3 credits from Group B. Students are encouraged to choose courses from different disciplines in Group A and B. Students who are 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 1
(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

CLP 1006 Psychology of
Personal Effectiveness

PSY 2012 Introduction to Psychology

SYG 2000 Introduction to Sociology

Group B (3 credits)

AMH 2010 History of the
United States to 1877

AMH 2020 History of the
United States since 1877

**ECO 2013 Principles of
Economics (Macro)

ISS 1120 The Social Environment

POS 2041 American Federal
Government

WOH 2012 History of World
Civilizations to 1715

WOH 2022 History of World
Civilizations from 1715

5. NATURAL SCIENCE (6 credits)

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

Life Sciences (3 credits)

BOT 1010 BSC 2010 OCB 1010

BSC 1005 BSC 2020 PCB 2033

BSC 1030 BSC 2085 PCB 2340C

BSC 1050 BSC 2250 ZOO 1010

BSC 1084 HUN 1201

Physical Sciences (3 credits)

AST 1002 GLY* PHY*

CHM* MET* PSC 1121

ESC* OCE* PSC 1515

* = any course with this prefix (excluding labs)

Majors in one of the natural sciences, architecture, engineering, nursing and allied health programs should select the appropriate sequence of courses beginning with one of the following:

BSC 2010 CHM 1045 PHY 2053

BSC 2085* PHY 2048

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

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

Any 6 credits excluding labs:

MAC MAS QMB 2100

MAD 2104 MGF STA 2023

MAP MTG 2204

7. REQUIRED GENERAL

EDUCATION ELECTIVE (3 credits)

Select 3 credits from any of the following options.

•Cross-Cultural Studies

ANT 2410 GEO 2420 LIT 2480

ECO 2013 INR 2002 SYG 2230

EDG 2701 ISS 2270 WOH 2012

EEX 2000 LIT 2120 WOH 2022

•Any approved general education course previously listed but not used to satisfy another general education requirement

•Any **AST, BOT, BSC, CHM, GLY, MET, OCE, PHY, PSC, ZOO, HUN 1201, PCB 2033** or linked lab

•Any **MAC, MAP, MAS, MGF, MTG 2204, STA 2023, QMB 2100** (excluding labs)

•Computer Science: 1 to 3 credit transferable computer course

•Health - Wellness: **HSC 1121, HSC 2400, HLP 1080 or HLP 1081**

•Any 3 credit introductory course in a major field that satisfies statewide general education requirements:

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

•Any foreign language course at the 2000 level.

•Sign Language: **ASL 2160C or ASL 2200C**

8. COMPUTER COMPETENCY

By the 16th earned college-level credit (excluding English for Academic Purposes [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 Florida 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 Florida State Board of Education or Board of Governors to measure student achievement in college-level communication and computation skills, other assessment requirements shall be met by successful completion of coursework in English and mathematics. For the purposes of this rule, a grade of “C” or higher shall be considered successful completion.

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

(a) Six semester hours of English coursework and 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 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 3 hours of the 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 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, 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 Florida Board of Education or the Board of Governors as appropriate. Upon approval by the Florida 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) F.S. 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. For further information pertaining to the Gordon Rule, please visit <http://www.mdc.edu/asa/faculty/default.asp>.

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

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

Communications

ENC 1101 English Composition 1

Oral Communications

SPC 1017 Fundamentals of Speech Communications

Humanities

PHI 2604 Critical Thinking and Ethics

Behavioral Sciences

CLP 1006 Psychology of Personal Effectiveness

Math/Science (any 3 credits excluding labs):

Math

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

Science

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

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

In order to be eligible to enroll in the communications courses, students must

achieve specified scores on the reading and the writing assessments. Students who do not demonstrate the required proficiency on these assessments must register for college preparatory courses.

Computer Competency

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.

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 (updated information located at <https://sisvsr.mdc.edu/ps/sheet.aspx>).

College Credit Certificate Programs

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

Career Technical Education Programs

To receive a Career Technical Education Certificate (formerly V.C.C.), students must successfully complete all courses specified within the program,

meet the reading and computational skills required for the particular program and apply for graduation (updated information located at <https://sisvsr.mdc.edu/ps/sheet.aspx>).

Commencement

(Graduation Ceremony)

Students who anticipate completing their program during the academic year should meet with an academic advisor to ensure that all graduation requirements will be met. Also, students must apply for graduation by the deadlines published in the academic calendar. Students planning to graduate in spring or summer terms should note that the deadline is very early in the spring term.

The commencement ceremony is held once a year, at the end of spring term (late April or early May). Caps and gowns are available at campus bookstores for those who have applied for graduation. There is no cost for these items.

Special Recognition for Outstanding Academic Performance

(College Credit Students Only)

The College gives special recognition to students who demonstrate outstanding academic performance while

working toward a degree. Students are eligible for the following recognition:

Dean's List - recognizes students who have a term GPA of 3.5 or above for 12 or more credits earned in the fall or spring term, and for 6 or more credits earned in the summer A or summer B terms.

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

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

Honors

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

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

To be eligible for induction into Phi Theta Kappa, the International Honor Society of the Two-Year College, a student must have completed a minimum of 12 college-level credits leading to an Associate degree, with a minimum 3.5 GPA and the student must be currently enrolled. Upon graduation, initiated students will have those noted on their transcript.

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 or Associate of Applied Science degree programs may also transfer to specific institutions if other requirements are met.

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

Campus 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 Campus 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

State University System of Florida. There are a number of types of articulation agreements which create special opportunities for students (updated information located at <http://www.mdc.edu/asa/articulation.asp>).

Inter-Institutional Articulation Agreement

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

State of Florida Articulation Agreement

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 state universities 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 GPAs 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 §1007.23, F.S., and Rule 6A-10.024, F.A.C., the articulation agreement states: "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 Florida Division 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.

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

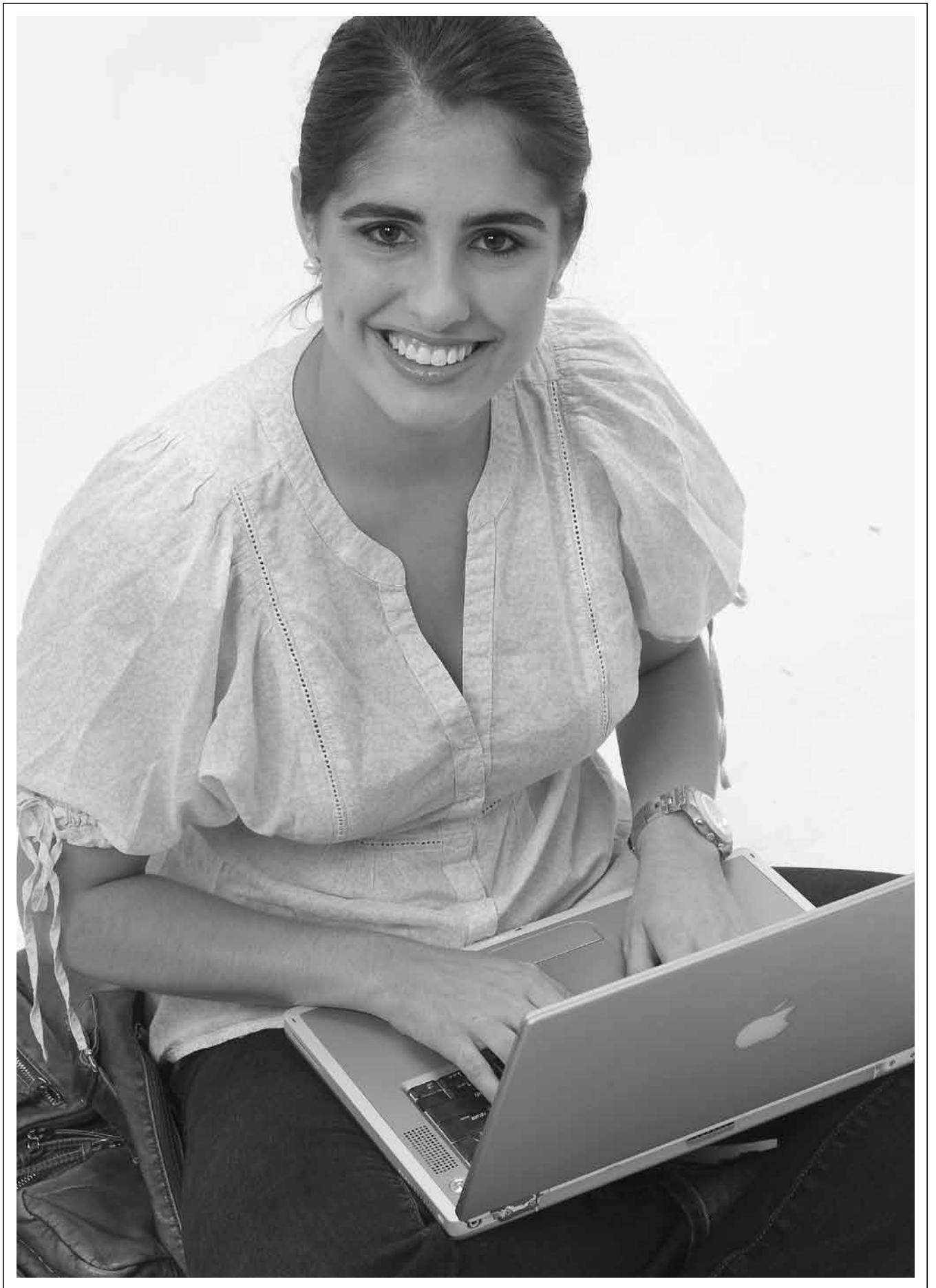


Call us Essential ... Call us the College

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Baccalaureate Degrees

The baccalaureate (or Bachelor's) degree is an upper level degree for students who wish to pursue further education. Miami Dade College (MDC) offers the Bachelor of Science (B.S.) and the Bachelor of Applied Science (B.A.S.) in selected areas of study (<https://sisvsr.mdc.edu/ps/sheet.aspx>). All MDC baccalaureate programs are approved by the Florida Department of Education and are accredited by the Commission on Colleges of the Southern Association of College and Schools (SACS).

Note: All students must complete the MDC Bachelor's Application at <https://sisvsr.mdc.edu/admission2/default.aspx>.

General Education Requirement

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

Requirements for the Major

Departments are responsible for disseminating major requirements to students. Each candidate for the baccalaureate degree must complete requirements in their chosen major. The major normally consists of approximately thirty (30) semester hours, depending on the department in question. See departmental entries for specific requirements.

Dual Degree Versus a Double Major

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

• Double Major

To obtain a double major, students must meet all requirements of the

school/department of the primary major but only the major requirements of the secondary major.

• Dual Degree

Students may receive a second baccalaureate degree provided that:

- 1) the requirements for each major/minor as well as individual college requirements for both the first and the second degrees are satisfied; and
- 2) 30 semester hours in residence are completed, in addition to the hours required for the first degree. The additional 30 semester hours must be completed in residence after the completion of the first degree. Hours earned by the student during the completion of the first baccalaureate degree, over and above those extra credit hours actually required for the first degree, may not be included in the 30 semester hours. There are no General Education or Florida CLAS requirements for the second (dual) degree.

BACHELOR OF APPLIED SCIENCE

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

Film, Television & Digital Production

The Bachelor of Applied Science with a major in Film, Television & Digital Production degree is designed to provide the South Florida workforce with a highly skilled applicant pool to fulfill job demands and to provide an affordable opportunity for students completing either an Associate in Science or an

Associate in Arts degree to seamlessly continue and complete a baccalaureate degree. Graduates of the Bachelor of Applied Science with a major in Film, Television, and Digital Production degree will be prepared with the abilities and skills needed to succeed in the film and television industry.

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

Admission Requirements:

- Have earned an Associate in Science or Associate in Arts degree from a regionally accredited institution **OR** have completed a minimum of 60 semester hours from a regionally accredited institution, including 4 credits applicable to the program curriculum, including ENC 1101 and MAC 1105 or equivalents.
- Have a minimum cumulative GPA of 2.0 or higher.
- Have passed all parts of the College Level Assessments Skills (CLAS) or met State-mandated CLAS alternatives.
- Successfully complete the Florida Common Pre-requisite coursework (FIL 1030 and FIL 1100).

Health Sciences with an Option in Physician Assistant Studies

The Bachelor of Applied Science with a major in Health Sciences with an Option in Physician Assistant Studies (concentration) consists of 130 total semester credits which incorporate A.A. and A.S. lower division coursework. Students will complete course work in basic sciences, general studies, clinical

medicine, history, and physical examination techniques, surgical, clinical and practice management skills. Students will be provided with opportunities to develop discipline-specific medical skills and to expand their knowledge by participating in structured clinical experiences under the supervision of Physician Assistants and physicians.

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

Admission Requirements:

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

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

Public Safety Management

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

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

Admission Requirements:

- Have earned an Associate in Science or Associate in Arts degree from a regionally accredited institution OR have completed a minimum of 60 semester hours from a regionally accredited institution.
- Have passed all parts of the College Level Academic Skills (CLAS) or met State-mandated CLAS alternatives.
- Students must have a minimum, cumulative GPA of 2.0

Supervision & Management

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

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

Admission Requirements:

- Have earned an Associate in Science, Associate of Applied Science or Associate in Arts degree from a regionally accredited institution Or
- Have completed a minimum of 60 semester hours from a regionally accredited institution, including 45 credits applicable to the program curriculum, including ENC 1101 or its equivalent
- A minimum cumulative GPA of 2.0 or higher
- Have passed all parts of the College Level Assessments Skills (CLAS) or met State-mandated CLAS alternatives.

BACHELOR OF SCIENCE

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

Education

The four-year baccalaureate degree in Secondary Education and Exceptional Student Education is designed to prepare students to become teachers and pass state professional certification exams. An internship in a school setting is required to provide practical experience. Additionally, individuals with bachelor's degrees in other fields are able to earn teacher certification. Please refer to the on-line College Catalog for specific program prerequisites (www.mdc.edu). 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.

- Exceptional Student Education
- Secondary Mathematics Education
- Secondary Science Education (Biology, Chemistry, Earth & Space Science, and Physics)

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

mine the specific graduation policies in effect for their program of study. Requirements may change based on the year and term a student enters Miami Dade College. The degree audit report includes current graduation requirements. The final responsibility for meeting graduation requirements stated in the degree audit report rests with the student.

Admission Requirements:

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

Note: Grades in these three courses must be no lower than C.
- Applicants must agree to submit to and clear a Level 2 background check by the Florida Department of Law Enforcement (FDLE) and the Federal Bureau of Investigation (FBI). The clearance procedures are coordinated by the School of Education for all education students.

In addition, some school districts require drug testing for student interns and/or student teachers. Students with felony arrests may wish to consider this carefully and seek advice from an advi-

sor 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.

Electronics Engineering Technology

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

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

Admission Requirements:

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



ted into senior level institution level engineering technology core courses.

- Students must complete MAC1105 and ENC1101 prior to being admitted into the senior level institution.
- Have passed all parts of the College Level Academic Skills (CLAS) or met State-mandated CLAS alternatives.

Nursing

The Bachelor of Science in Nursing (BSN) is designed for licensed RNs with an A.S. degree in Nursing from regionally accredited programs who wish to attain the next level of education in order to provide professional nursing care in all clinical practice settings around the world, or to be eligible for advanced nursing leadership, management, staff education, and practice positions, in a multi-cultural society.

Please Note: Students in all programs should check their individualized degree audit report to determine the specific graduation policies in effect for their program of study. Requirements may change based on the year and term a student enters Miami Dade College. The degree audit report includes current graduation

requirements. The final responsibility for meeting graduation requirements stated in the degree audit report rests with the student.

Admission Requirements:

- An active license as a registered professional nurse.
- An earned A.S. in Nursing from a regionally accredited college.
- A minimum 2.5 cumulative GPA and 2.5 GPA in Nursing coursework from a regionally accredited A.S. in Nursing program, or equivalent.
- Completed School of Nursing application with supporting documentation.
- Successfully completed background investigation and drug screening.

POST BACCALAUREATE CERTIFICATE

Educator Preparation Institute (EPI)

The Educator Preparation Institute (EPI) is an approved Florida Department of Education intensive competency-

based Accelerated Certification Program designed to assist the school districts in our service area. This program offers an opportunity for non-education majors who have a minimum of a bachelor's degree to become highly qualified teachers and obtain professional state certification. The EPI program will produce qualified teachers entering the workforce in public and private schools in the State of Florida. Participants will embark on a teaching career in high-need subject areas and specializations such as mathematics (middle and high school), science (middle and high school), exceptional student education (ESE) (K-12), and English for Speakers of Other Languages (ESOL) (K-12).

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



Associate in Arts Degrees

A.A. Degree Programs

Miami Dade College offers courses for a wide range of majors for the Associate in Arts degree. The A.A. degree prepares students to enter the junior year at four-year upper-division colleges and universities.

Four-year institutions vary in the required number and nature of courses a student needs to take during the freshman and sophomore years. The State University System (SUS) of Florida has identified common prerequisites for most majors. Students should see an advisor for additional information or refer to FACTS.org.

Students who have determined which profession or major they plan to pursue should become familiar with the requirements of the upper-division institutions. With the help of advisors and through using the degree audit, students may choose electives best suited for pursuit of a baccalaureate degree.

Students must be high school graduates or have a high school equivalency diploma (GED) to enroll in Associate in Arts 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 (refer to FACTS.org for the Common Prerequisite Manual information). All general education requirements are included. Students should be aware that credits earned in excess of the 60 credits required for graduation might not be accepted for transfer by the upper-division university. Students may be awarded the A.A. degree only once.

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

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.

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

Agriculture

Agriculture is the art, science and industry of managing the growth of plants and animals for human use. Study at MDC emphasizes a strong foundation in the sciences of biology (including botany), chemistry and/or physics. The range of careers in agriculture extends from rural farming to urban landscaping, with numerous specializations in areas such as hydroponics, agricultural engineering, animal husbandry, food packing and processing and soil chemistry.

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

Anthropology

Anthropology studies all aspects of human life by evaluating society, evolution and culture. Course offerings prepare the student in the four fields of the discipline: cultural anthropology,

physical anthropology, anthropological linguistics and archaeology. Most anthropologists are researchers who work in museums or educational institutions. Students majoring in anthropology should plan to obtain the Ph.D. to fully succeed in the field.

For more 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 more 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 or Black Studies, American Studies, Asian Studies, Jewish Studies, Latin American Studies or Women's Studies. These studies could lead to careers in sociology, political science, or academic work in areas such as comparative literature or history.

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

Art or Art Education

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

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

Atmospheric Science and Meteorology

To transfer to a four-year program in atmospheric science and meteorology, students must take science and math courses as well as introductory courses in meteorology. Job opportunities may include weather forecasting in aviation, marine or shipping companies, government agencies, broadcasting or transportation industries. Additionally, meteorologists may work with other scientists researching phenomena such as volcanoes, hurricanes and global warming.

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

Pre-Bachelor of Arts

The Pre-Bachelor of Arts program at MDC is designed for students who seek a general degree program and greater freedom 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 more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Biology

Biology, or life science, is the study of all aspects of living organisms, emphasizing the relationship of animals and plants to their environment. This 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 more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Biotechnology (Interdisciplinary Sciences)

Biotechnology is the practice of using living organisms to make products or improve processes. It combines elements of biology, chemistry, engineering, and computing. This program provides the first two years of a four-year curriculum for students plan-

ning to major in biotechnology, biology, chemistry, or bioinformatics. Majors may also enter professional schools in related disciplines.

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

Business Administration

Business Administration includes courses in accounting, business law and finance, as well as more generalized courses in mathematics. Students may transfer to senior colleges or universities that offer baccalaureate degrees in business administration. Ultimately, graduates may work in the fields of banking, finance, marketing, information systems or real estate.

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

Chemistry

Chemistry is the science that investigates the composition, properties and change of properties of elementary forms of matter. In addition to coursework in chemistry, the A.A. 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 more 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 film, television, and video game design.

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

Computer Information Systems (CIS)

CIS focuses on the structure, management and control of information resources on computers. Coursework includes business and math classes, as well as courses in information systems and programming languages. Students 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 more 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 more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Criminal Justice Administration

The Associate in Arts in Criminal Justice Administration is a transferable degree. In addition to coursework focusing on criminal justice and law, this program includes classes in history, sociology and political science. Pre-law students will find this program suitable, as well as those seeking bachelor's degrees

in public safety related fields such as law enforcement, corrections, security and loss prevention, probations and parole, emergency management, crime scene investigation, and criminal justice. The A.A. degree offers students a seamless transition to the MDC's Bachelor of Applied Science degree with a major in public safety management.

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

Dance

Studio classes feature modern dance and ballet, and the 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, jazz or contemporary dance. The program is also suited for students wishing to become dance teachers.

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

Economics

Economics is the study of how people produce, trade and consume goods and services. The A.A. degree 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 more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Engineering

Miami Dade College offers ten engineering A.A. degree 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 more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

English Literature & English Education

English literature is the study of great written works and how they were shaped by historical and cultural events. This 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 more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Environmental Studies

Environmental Studies examines environmental issues from both ecological and sociological standpoints. 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 as the need for environmental researchers, analysts, engineers and journalists will grow.

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

Exercise Science

Exercise Science studies the relationship of physical exercise to human health and disease prevention. This 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 more 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 more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Forestry

Forestry studies the ecology and economy of forest management. Students should be aware that the University of Florida is the only in-state university offering this program, with majors in forest resources, and conservation and urban forestry. Foresters manage, devel-

op and protect woodlands and their resources (timber, water, wildlife, forage and recreational areas).

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

Geology

Geologists study the structure, composition and history of the Earth. This 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 more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Graphic or Commercial Arts

Graphic Design emphasizes studio courses in design, drawing and digital techniques. This prestigious two-year degree prepares students with occupational skills in page layout, illustration and photographic editing software with all projects leading to extensive portfolio preparation. Graduates may find work in advertising agencies, design studios, exhibition and display businesses,

department stores and industrial organizations.

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

Health Services Administration

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

History

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

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

Hospitality Administration/Travel & Tourism Management

This field combines traditional business and management education with training specific to the hospitality, travel and tourism industries. Careers in the hospitality, travel and tourism industries include hotel and restaurant, food and beverage management, and entry and



mid-level positions with cruise lines, airlines, land-based tourism companies, as well as travel agencies.

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

Interior Design

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

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

International Relations

Students can obtain the coursework necessary to transfer to four-year programs in international relations, 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 more 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 more 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 more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Mass Communication/Journalism

Mass communication examines the role of media in society. Coursework includes media criticism and analysis, U.S. history and government, sociology and a study of the broadcast, cable and Internet industries. Depending upon the student's area of interest, study may also include journalism, and television and radio production. A bachelor's in mass communication equips one to work in journalism, corporate communication, or in certain business or managerial positions in television or radio.

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

Mathematics

Mathematics is the science and study of numbers and shapes. It originated as a system used to model things in the universe and evolved into an essential tool in many fields of study. The Associate in Arts (A.A.) degree in Mathematics is recommended for transfer students planning to earn a baccalaureate degree with a major in mathematics, engineering, or mathematics education. Students who complete this program will obtain a broad and enriched background in mathematics and liberal arts, will be able to use contemporary technology to explore mathematical ideas, and will be able to effectively communicate their ideas mathematically. Courses should be selected in consultation with an advisor from the Department of Mathematics.

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

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 (P.A.) 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 pre-medical degrees such as biology. Admission to a professional school is dependent upon academic coursework and scores on a national test. Applicants should have a minimum "B" average.

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

Pre-Medical Technology

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

Music or Music Education

Music or music education students must be proficient in music theory and music history as well as be skilled performers. Careers in music include individual and group performance, conducting, composing and teaching. Music graduates may also have jobs working in ancillary professions such as retail, publishing and recording.

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

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. 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 aca-

demographic record, and have widely differing pre-professional course requirements. Therefore, students are advised to check with the nursing department of the senior institution they wish to attend. Most upper-division programs also offer a track for registered nurses (R.N.s) completing an Associate in Science degree to earn a BSN degree.

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

Pre-Occupational Therapy

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

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

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

Pre-Pharmacy

The A.A. 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 University are the only in-state institutions that offer the baccalaureate and/or doctorate in this field.

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

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

Physics

Physics is the study of the motion and force of energy and matter. This science is applied to different kinds of energy and matter, as in thermodynamics, astrophysics, nuclear physics and wave motion analysis. The 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 more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Political Science

Political science examines the role and effects of government actions on society. The A.A. 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 more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Psychology

Psychology is the science of human behavior and mental processes that affect mental and physical health. 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 graduate degree include teaching or counseling in a wide variety of settings.

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

Public Administration

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

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

Recreation

To prepare for upper-division work in recreation, students take courses in accounting, economics, human anatomy and physiology, and health sciences. This 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 more 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 theo-

logical studies or a ministerial career or they may seek work immediately in a religious organization.

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

Social Work

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

Sociology

Sociology is the systematic study of human interaction, that is, society, social relationships, social structures and social change. Coursework emphasizes topics such as social norms, values, social change and deviance. Graduates with a bachelor's degree can work within community organizations, government agencies and the criminal justice field. Many students go on to pursue graduate degrees and work in social policy, public administration, law, government or social services.

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

Speech Pathology and Audiology

This 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 more 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 MDC Bachelor of Science in Education degree, approved by the Florida Department of Education, prepares students to enter the teaching profession. Areas of specialization include: exceptional student education (K-12); secondary mathematics education (6-12) and secondary science education (6-12).

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

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

Associate in Science/Associate of Applied Science Degrees

A.S. College Credit Programs

The two-year Associate in Science degree is designed for individuals looking for specialized study at the college level leading to immediate entry into a career upon graduation. The A.S. degree programs are comprised mostly of courses directly related to the identified career area. The remaining courses are comprised of general education courses such as English, oral communications, math/science, behavioral/social science and humanities. Upon successful completion of all MDC and program requirements, students may be awarded multiple A.S. degrees as appropriate, provided the degrees do not share the same classification of instructional program code (CIP). Several of the A.S. degree programs are covered by a statewide articulation agreement that allows transfer to the corresponding bachelor's degree program at Florida public universities (refer to FACTS.org for the Statewide Articulation Manual information). In addition, many of the other A.S. degree programs have established articulation agreements with selected universities. The general education component of the A.S. degree is transferable to the upper divisions. Allied Health programs are offered at the Medical Center Campus.

STUDENTS IN ALL PROGRAMS SHOULD CHECK THEIR INDIVIDUALIZED DEGREE AUDIT REPORT TO DETERMINE THE SPECIFIC GRADUATION POLICIES IN EFFECT FOR THEIR PROGRAM OF STUDY. REQUIREMENTS MAY CHANGE BASED ON THE YEAR AND TERM A STUDENT ENTERS MIAMI DADE COLLEGE. THE DEGREE AUDIT REPORT INCLUDES CURRENT GRADUATION REQUIREMENTS. THE FINAL RESPONSIBILITY FOR MEETING GRADUATION REQUIREMENTS STATED IN THE DEGREE AUDIT REPORT RESTS WITH THE STUDENT.

Accounting Technology Associate in Science

*Total credits required
for the degree: 64*

The Accounting Technology program is designed mainly for students who intend to seek immediate employment in the field of accounting and for those presently employed in business but seeking advancement. Completion of this program prepares the student for employment as a paraprofessional in the accounting field. Instruction emphasizes accounting competencies required at the entry-level while also providing the student with a broad business overview and the required general education courses. The Associate in Arts 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 more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Advanced Manufacturing Technology

Associate in Science

*Total credits required
for the degree: 60*

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

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

Air Conditioning Refrigeration/Heating Systems Technology

Associate in Science

*Total credits required
for the degree: 64*

The Air Conditioning Refrigeration/Heating Systems Technology program prepares the student to perform engineering design of air conditioning environmental control systems. The 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 more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Architectural Design and Construction Technology Associate in Science

*Total credits required
for the degree: 66*

The Architectural Design and Construction Technology program offers courses that enable the student to translate the design and systems of the architect into graphic and written form and assists the professional in rendering architectural services. The attainment of these skills qualifies the student for several specialties, such as, architectural drafting, cost estimating, material selecting, specification writing and preparing presentations, drawings and models.

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

Aviation Administration Associate in Science

*Total credits required
for the degree: 64.*

The Aviation Administration program is designed to prepare students to succeed in the dynamic aviation industry. The program focuses on the necessary entry-level skills for most aviation employment fields. The air traffic control option provides students with the opportunity to be hired with the Federal Aviation Administration (FAA). Accordingly, graduates find opportunities in airline sales and reservations, air cargo, airport operations and many data-entry positions required by the airline management.

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

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

Aviation Maintenance Management Associate in Science

*Total credits required
for the degree: 83*

The Aviation Maintenance Management is a special program in which 45 semester hours are awarded to students who possess the Federal Aviation Administration Aircraft and Powerplant (A&P) certificate. The 38 additional required credits consist of general education and aviation requirements needed by the licensee for the Associate in Science degree.

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

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

Biomedical Engineering Technology Associate in Science

*Total credits required
for the degree: 68*

The Biomedical Engineering Technology program prepares students for employment as biomedical engineering technicians/technologists and in related occupations in health-related fields. The program also provides supplemental training for persons currently or previously employed in these occupations. The program focuses on the understanding and applying of concepts in electronics, in addition to 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 more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Biotechnology Associate in Science

*Total credits required
for the degree: 61*

The Biotechnology Program exposes students to a breadth of topics and emphasizes hands-on learning in a variety of techniques and procedures necessary for employment in the bioscience industry. The program includes modules

designed to enhance critical thinking and technical communication skills. It focuses on developing broad transferable skills and stresses understanding and demonstration of laboratory/industry protocols and regulations, bio-safety and safe operating procedures, ethical and environmental issues, product generation/formulation, quality control, validation, instrumentation, and computing.

Building Construction Technology Associate in Science

*Total credits required
for the degree: 64*

The Building Construction Technology program is designed to furnish technically trained personnel for the building construction industry. The graduate may work with a contractor as part of the administrative team in such entry-level job positions as those leading to estimators, job coordinators or project managers. Technical jobs may also be available in the following areas: land and project developers; technical sales for building materials, systems, and equipment; with local, state, and federal government agencies as well as various financial institutions.

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

Business Administration Associate in Science

*Total credits required
for the degree: 64*

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

The Business Administration program trains individuals to assume management or supervisory positions in business, industry, and government. It provides basic skills in a broad range of business functions including accounting, computer usage, management and marketing. Successful completion of this program earns the student entry into any university in the State University System as part of the A.S. to B.S. program.

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

Civil Engineering Technology Associate in Science

*Total credits required
for the degree: 63*

The Civil Engineering Technology program is designed for those students who wish immediate job placement prior to or after graduation. This program also satisfies many of the civil engineering freshman and sophomore requirements for the Bachelor of Engineering Technology degree offered by certain universities.



Consult your Civil Engineering advisor prior to registration.

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

Computer Engineering Technology Associate in Science

Total credits required for the degree: 68

The Computer Engineering Technology program prepares students for employment as computer engineering technicians/technologists and in related occupations in electronics. It also provides supplemental training for persons currently or previously employed in these occupations. The program focuses on the understanding and applying of hardware and software concepts, in addition to troubleshooting techniques to digital, microprocessor or computer-based systems. Assembly, installation, operation, maintenance, calibration, troubleshooting, repairing and elementary designs of medical systems are taught using an integrated and theoretical approach.

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

Computer Information Technology Associate in Science

Total credits required for the degree: 63

The Computer Information Technology program provides an opportunity for students to establish a basic foundation in computer 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 more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Computer Programming and Analysis Associate in Science

Total credits required for the degree: 63

The Computer Programming and Analysis program provides an opportunity to establish a basic foundation

in computer programming in scientific, commercial, industrial and government information technology applications. Graduates are prepared for positions as entry-level application programmers, programmer specialists, computer programmers and programmer analysts. 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 more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Court Reporting Technology Associate in Science

Total credits required for the degree: 73.

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

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

Crime Scene Technology Associate in Science

Total credits required for the degree: 60

The Associate in Science Degree in Crime Scene Technology will prepare students for employment in the field of criminalistics with a specialty in Crime Scene Investigation or Forensic Science. The student can serve as, but is not limited to, positions of Forensic Science Technician (SOC 194092), Crime Scene Technician, Medical Examiner Investigator, Medical Investigator, Insurance Investigator, Legal Investigator, Forensic Paralegal, Crime Scene Investigator, and Laboratory Technician. Students may

also continue their formal education with the College and receive a BAS in Public Safety Management.

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

Criminal Justice Technology: Basic Law Enforcement Associate in Science

Total credits required for the degree: 64

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

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

Criminal Justice Technology: Corrections Associate in Science

Total credits required for the degree: 64

The Associate in Science degree in Criminal Justice Technology - Corrections is a technical degree for the student who wishes to continue his/her education following completion of the Basic Training Academy in state corrections or the Basic Training Academy in county corrections. The Criminal Justice Technology program is designed to provide competencies for the diverse field of criminal justice. Upon successful completion of the courses 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: basic law enforce-

ment generic or corrections, but the degree is awarded only once.

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

Criminal Justice Technology: Generic Associate in Science

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

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

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

Culinary Arts Management Associate in Science

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

The Associate in Science degree will groom individuals for careers in the widely varied areas of the culinary industry, including production line and supervisory positions. This competency based culinary program will provide the student with a unique combination of comprehensive theoretical knowledge and hands on training. Students will master the fundamentals of culinary production in an environment that builds teamwork while gaining practical individualized experiences. The course content includes food preparation and service; identification, storage, selection and presentation of foods; training in communication, leadership, human relations, and employability skills; and sani-

tation and safe work practices. Earning a degree will enable students to pursue further education at the university level or begin working in the field immediately upon graduation.

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

Database Technology Associate in Science

**Total credits required
for the degree: 63**

The Database Technology program is designed to provide an opportunity to establish a basic foundation in the field of database administration for employment in commercial, industrial and government institutions. Graduates are prepared for positions as database administrators and database developers. There is only one A.S. program in Database Technology. Students may select from one of the four options listed, but the A.S. in Database Technology will be awarded to the student only once.

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

Drafting and Design Technology Associate in Science

**Total credits required
for the degree: 62**

Drafting and Design Technology is a highly technical program 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 more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Early Childhood Education Associate in Science

**Total credits required
for the degree: 63**

The Early Childhood Education programs provide training for students who desire to enter the field of early childhood education. The programs combines' classroom instruction and field work experience with an empha-

sis on developmentally appropriate practices for young children. Within the program there is the option of earning a Florida Child Care Professional Certificate (formerly CDA-E), College Credit Certificates in Infant-Toddler, Preschool, or Administration, or Associate in Science degrees with concentrations in Infant-Toddler, Preschool, or Administration. Students 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 and are eligible to enter the baccalaureate programs.

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

Electrical Power Technology Associate in Science

**Total credits required
for the degree: 68**

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

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

Electronics Engineering Technology Associate in Science

**Total credits required
for the degree: 68**

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

The Electronics Engineering Technology program prepares students for work as technicians in various fields of electronics technology. No previous experience is required to enter. Courses offered cover basic and advanced electrical circuits, semi-conductors, integrated circuits, pulse circuits, digital computer circuits, electrical machinery,

communication systems and industrial control. Theory and laboratory experience is provided.

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

Environmental Science Technology Associate in Science

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

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

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

Film Production Technology Associate in Science

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

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

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

Financial Services Associate in Science

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

The Financial Services program is designed to meet the needs of students who plan to seek employment with commercial banks, stock brokerage companies and related financial organizations. It is also planned for students who are currently employed and desire advancement to positions of greater responsibility with financial organizations. This program meets most of the requirements for the American Institute of Banking diploma/certificates. There is only one

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

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

Fire Science Technology Associate in Science

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

The Fire Science Technology program prepares students for a wide variety of technical positions in the area of fire prevention and control. Students will learn about safety factors, building code requirements, national and local standards, hazardous materials, supervision and management skills, hydraulics, fire apparatus, tactics and strategy. The program has been designed to meet both the Florida Fire Fighters Pre-Officer Requirements and the NFPA 1021 Fire Officer Level Two Requirements.

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

Funeral Services Associate in Science

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

Students in the Funeral 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, URL: 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 required 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 more 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. The degree will give students 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 take coursework on production workflow processes from the design concept to the finished printed product. Students will get hands-on experience with graphic design, estimating, color theory, electronic scanning, page makeup, imposition, electronic color retouching and presswork. This A.S. degree may transfer to upper-division universities offering a Bachelor of Science degree in Graphic Arts or Graphic Communications.

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

Graphic Design Technology Associate in Science

Total credits required for the degree: 64

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

A.S. degree may transfer to upper-division universities offering a Bachelor of Science degree in Graphic Arts or Graphic Communications.

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

Graphic Internet Technology Associate in Science

Total credits required for the degree: 62

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

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

Hospitality and Tourism Management Associate in Science

Total credits required for the degree: 64

The Hospitality and Tourism Management program provides professional preparation for a career in the hospitality industry. Hospitality management is presented as a core curriculum with emphasis on hotel, cruise-line, resorts, conventions, and institutional management. An internship program is required to provide practical experience in the field of the student's choice. The Associate in Arts 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. This program transfers to four-year institutions. See department for information.

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

Human Services - Addiction Studies Associate in Science

Total credits required for the degree: 73

The Human Services program with a specialization in Addiction Studies

is designed to prepare students for employment as human services specialists, human services practitioners, chemical dependency practitioners, addiction specialists, mental health and social services practitioners, or to provide supplemental training for persons previously or currently employed in these occupations. The program is also designed to provide most of the general academic and addiction specific requirements of the Certification Board for Addiction Professionals of Florida.

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

Human Services - Generalist Associate in Science

Total credits required for the degree: 65

The Generalist Human Services program prepares students for employment in the network of programs and agencies which provide a vast array of human needs. These include areas such as child care, criminal justice, education, health, housing, income maintenance, mental health and retardation, among others. These needs are provided for in a variety of settings, such as clinics, hospitals, nursing homes, rehabilitation centers and social agencies.

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

Industrial Management Technology Associate in Science

Total credits required for the degree: 60

The Industrial Management Technology program is primarily designed to provide additional competencies for administrative, managerial, supervisory and technical discipline areas for personnel 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 more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Instructional Services Technology Associate in Science

*Total credits required
for the degree: 63*

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

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

Interior Design Technology Associate in Science

*Total credits required
for the degree: 70*

The Interior Design Technology program is planned to develop ability in the design of interiors, to encourage originality and to foster talent in this field. It includes theoretical and technical aspects of interior design. The program is open to those who study for pleasure and those preparing for a career.

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

Internet Services Technology Associate in Science

*Total credits required
for the degree: 63*

The Internet Services Technology program provides an opportunity to establish a basic foundation in the field of 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 more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Landscape & Horticulture Technology Associate in Science

*Total credits required
for the degree: 68*

The purpose of this program is to prepare students for employment in horticulture and landscape industries. The students will learn about plant growth, nutrition, and fertilization, plant classification and identification, propagation, pest control, pruning, maintenance, and drainage. Students will also gain business management and job skills. Students pursuing the Horticulture Specialization (21005) will obtain the additional skills necessary for protecting, processing, shipping, and marketing of commercially viable plants. Students pursuing the Landscape Specialization (21006) will obtain the additional skills necessary for landscape design and installation.

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

Marketing Management Associate in Science

*Total credits required
for the degree: 64*

The Marketing Management program is designed mainly for students who intend to seek immediate employment in the fields of marketing, international business and trade, or real estate; also for those desiring to work in a 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 but the degree in Marketing Management will be awarded only once.

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

Music Business Associate in Science

*Total credits required
for the degree: 63*

The Music Business program is designed for students who intend to seek employment within the music business industry. Students can choose from three career track options including: Business

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

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

Networking Services Technology Associate in Science

*Total credits required
for the degree: 63*

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

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

Paralegal Studies (ABA Approved) Associate in Science

Total credits required
for the degree: 64

The Paralegal Studies program prepares students to obtain entry-level employment in law offices, government agencies, corporations or other business organizations. It also enables people working in the field without a degree to upgrade their paralegal skills and receive a degree. The Paralegal Studies program is approved by the American Bar Association. A paralegal or legal assistant as defined by the American Bar Association is "a person qualified by education, training or work experience who is employed or retained by a lawyer, law office, corporation, governmental agency or other entity and who performs specifically delegated substantive legal work for which a lawyer is responsible." Paralegals cannot give legal advice, set fees, negotiate or represent clients in court as these activities involve the actual practice of law. While paralegals work under the supervision of attorneys, they are so much more than just "document preparers." They are valued members of the legal profession.

Additional Information: It is necessary to see an advisor prior to beginning the program and before registering each term. For more information please contact the Paralegal Studies program at 305-237-7813 or visit our Web site at www.mdc.edu/wolfson/academic/LegalAssistant/default.asp

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

Photographic Technology Associate in Science

Total credits required
for the degree: 64

The Photographic Technology program is designed to meet individual students' needs for either further study or immediate employment in the field of commercial and industrial photography. Students develop a wide variety of photographic and art-related skills and the ability to use these skills to produce commercially viable photographs. Instruction covers portrait photography, still photography, fashion photography, illustrative photography as well as the business skills needed to manage a photographic enterprise. Various internships such as in biomedical and forensic technology are available to students.

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

Professional Pilot Technology Associate in Science

Total credits required
for the degree: 64

The Professional Pilot Technology program is primarily developed to meet the challenging 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 more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>.

Radio and Television Broadcasting Programming Associate in Science

Total credits required
for the degree: 64

The Radio and Television Broadcasting program is designed for students who intend to seek employment in radio and/or television produc-

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

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

Sign Language Interpretation Associate in Science

Total credits required
for the degree: 72

The Sign Language Interpretation program is designed to develop the skills and knowledge necessary to interpret the communications between deaf or hard of hearing persons and hearing individuals in an accurate and effective manner. Also developed is a practical understanding of aspects of deaf studies and deaf culture and community. Graduates should be able to interpret at a basic level, and to achieve a minimum of Level 1 on the Quality Assurance Screening of the Florida Registry of Interpreters for the Deaf, which is traditionally required for employment as an interpreter in the state. In addition, the program will provide a foundation, especially with an accompanying 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 more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>.

Telecommunications Engineering Technology Associate in Science

Total credits required
for the degree: 64

The Telecommunications Engineering Technology program prepares students for work as technicians in the field of telecommunications engineering. No previous experience is required to enter. The program focuses on the understanding and applying of new techniques

in electronic technology for the purpose of testing, maintaining, repairing and upgrading digital as well as analog communication systems. The program is designed to be an integrated educational curriculum taught using an integrated, applied and theoretical approach.

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

Theatre and Entertainment Technology Associate in Science

Total credits required for the degree: 64

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

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

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

Total credits required for the degree: 63

This program is designed to provide bilingual students with the knowledge and skills necessary to carry out the work associated with areas of translation (written) and interpretation (oral) in the workplace. Graduates are prepared for positions as court translators/interpreters, hospital translators/interpreters, telephone interpreters, freelance translators/interpreters, in-house translators/interpreters for the private sector (such as translation/interpreting agencies), translators for government entities and/or organizations as well as the entertainment industry. There is a strong emphasis on the use of computer hardware and software as essential tools for translators. Included in the program is ample use of an interpretation lab for interpreting classes and practice. Prospective

students are required to pass a written entrance exam in both languages to determine linguistic competence and general culture preparation.

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

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

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

The two year Associate of Applied Science degree is similar to the Associate in Science degree in that it prepares individuals for entry into a career upon graduation. The A.A.S. was established to prepare individuals for careers requiring specialized study at the college level. The A.A.S. degree does not usually 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. With the remaining courses comprised of general education classes such as English, oral communications, math/science, behavioral/social science and humanities.

Upon successful completion of all MDC and program requirements, students may be awarded multiple A.A.S. degrees as appropriate, provided the degrees do not share the same classification of instructional program code (CIP).

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.

Business Administration Associate of Applied Science

Total credits required for the degree: 64

The Business Administration Associate of 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 of Applied Science in Business Administration. Students may select one of the five options, but the Associate of Applied Science is awarded to the student only once.

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

Hospitality and Tourism Management Associate of 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 more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Other College Credit and Vocational Credit Programs

Advanced Technical Certificate Programs (ATC)

The Advanced Technical Certificate is available to students who have been awarded an Associate in Science degree and wish to upgrade their skills. Students must successfully complete a prescribed set of courses at the advanced level in order to be awarded the ATC.

STUDENTS IN ALL PROGRAMS SHOULD CHECK THEIR INDIVIDUALIZED DEGREE AUDIT REPORT TO DETERMINE THE SPECIFIC GRADUATION POLICIES IN EFFECT FOR THEIR PROGRAM OF STUDY. REQUIREMENTS MAY CHANGE BASED ON THE YEAR AND TERM A STUDENT ENTERS MIAMI DADE COLLEGE. THE DEGREE AUDIT REPORT INCLUDES CURRENT GRADUATION REQUIREMENTS. THE FINAL RESPONSIBILITY FOR MEETING GRADUATION REQUIREMENTS STATED IN THE DEGREE AUDIT REPORT RESTS WITH THE STUDENT.



Biotechnology Advanced Technical Certificate

Total credits required for the Certificate: 33

A fast-track certification program in biotechnology is available for students with bachelor's degrees, or having at least an associate degree and a strong background in college-level math and science courses. This background, combined with selected courses in the biotechnology program, will provide students with the necessary skills to seek employment in biotechnology and related industries.

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

Certified Flight Instructor Advanced Technical Certificate

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

The Certified Flight Instructor (CFI) Advanced Technical Certificate program includes theory, flight and lab instruction. The program meets FAA requirements for a CFI. In addition to the FAA requirements, each student will learn to develop lesson plans and learn how to communicate effectively using a variety of instructional materials and feedback techniques. Students wishing to enroll in this program must possess a Commercial Pilot's License. Upon successful completion of this program, students will be able to demonstrate knowledge of private and commercial pilot certification; fundamentals of instruction in a single engine airplane; ability to recognize, analyze and provide correction of common student errors; and knowledge of the responsibilities of Certified Flight Instructors (CFI). Contact the Aviation Department at 305-237-5900 for information and advisement.

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

College Credit Certificate Programs (CCC)

College Credit Certificate programs are subsets of selected Associate in Science degrees. The CCC meets the Florida Department of Education Certified College Credit program requirements and the student receives an institutional College Credit Certificate upon completion of the program, and the college credits granted in these programs will apply toward the related Associate in Science degree. The program's title is added to the student's transcript.

STUDENTS IN ALL PROGRAMS SHOULD CHECK THEIR INDIVIDUALIZED DEGREE AUDIT REPORT TO DETERMINE THE SPECIFIC GRADUATION POLICIES IN EFFECT FOR THEIR PROGRAM OF STUDY. REQUIREMENTS MAY CHANGE BASED ON THE YEAR AND TERM A STUDENT ENTERS MIAMI DADE COLLEGE. THE DEGREE AUDIT REPORT INCLUDES CURRENT GRADUATION REQUIREMENTS. THE FINAL RESPONSIBILITY FOR MEETING GRADUATION REQUIREMENTS STATED IN THE DEGREE AUDIT REPORT RESTS WITH THE STUDENT.

Accounting Applications College Credit Certificate

Total credits required for the College Credit Certificate: 27

The Accounting Applications College Credit Certificate program is designed to prepare students for employment as accounting clerks, data processing clerks, junior accountants and assistant accountants, or to provide supplemental training for persons previously or currently employed in these occupations. The program prepares individuals in the principles, procedures and theories of organizing and maintaining business and financial records, and the preparation of accompanying financial reports.

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

Addiction Studies College Credit Certificate

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

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

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

Air Cargo Agent College Credit Certificate

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

The Air Cargo Agent College Credit Certificate program is designed to give students the skills required to gain employment as an air cargo agent. The program can be completed in one or two semesters with classes offered during the day or evening hours. All of the credits earned can be applied towards an A.S. degree in Aviation Administration. Contact the Aviation Department at 305-237-5950 for information and advisement.

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

Airline/Aviation Management College Credit Certificate

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

The Airline/Aviation Management College Credit Certificate program will provide the student with aviation management skills in an accelerated time frame. These include areas such as airline/aviation industry knowledge, management skills, marketing, law and operations. Students will learn how to take industry concepts and apply them both individually and as a team. They will be able to gain insight into the actual issues involved in running an airline at both the micro and macro levels, from a leadership perspective. They will also acquire up-to-date knowledge about airline/aviation technologies and law, and the latest management concepts and practical application of theories to real life aviation scenarios.

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

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

Airport Management College Credit Certificate

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

The Airport Management College credit certificate program provides the student with the skills required to advance to management positions at airport (city and government) and/or airline terminal operations. Students will understand the cost centers, design processes and financial considerations required to be an effective manager in the aviation industry.

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

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

Automation College Credit Certificate

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

This certificate prepares students for initial employment with an occupational title as an Automation or Applied Automation Specialist in various specialized areas. It can also provide supplemental training for persons previously or currently employed in these occupations. These courses can be applied toward the Associate of Science in Advanced Manufacturing.

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

Banking Management College Credit Certificate

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

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

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

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

Banking Operations College Credit Certificate

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

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

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

Banking Specialist College Credit Certificate

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

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

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

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

Biotechnology College Credit Certificate

Total credits required for the
College Credit Certificate: 19

The College Credit Certificate in Biotechnology seeks to prepare students for immediate entry-level employment in the biotechnology, pharmaceutical, or medical device manufacturing industry. The program prepares individuals in the principles, procedures, and practices used in the bioscience industries. The college credits granted in this program will apply toward an Associate in Science degree in Biotechnology.

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

Business Management College Credit Certificate

Total credits required for the
College Credit Certificate: 24

The Business Management College Credit Certificate program is the third in a series of three College Credit Certificate programs designed to prepare students for the positions of manager trainee, supervisor or small business owner. It also provides supplemental training for people previously or currently engaged in these activities. The program prepares individuals to become proficient in the planning, organizing, directing and controlling 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 (Management or Small Business Management), but the certificate in Business Management is awarded only once.

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

Business Operations College Credit Certificate

Total credits required for the
College Credit Certificate: 18

The Business Operations College Credit Certificate program is the second in a series of three College Credit Certificate programs designed to prepare students for employment and advancement in the following areas: accounting/budgeting, business/ management, customer service, finance, human resources, international business, marketing, nonprofit, real estate, retail and small business. There is only one College Credit Certificate in Business Operations. Students may select one of the 11 options, but the certificate is awarded only once.

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

Business Specialist College Credit Certificate

Total credits required for the
College Credit Certificate: 12

The Business Specialist College Credit Certificate program is the first in a series of three College Credit Certificate programs designed to prepare students for employment in entry-level positions in the following areas: accounting/budgeting, business/management, customer service, finance, human resources, international business, marketing, nonprofit, real estate, retail and small business. There is only one

College Credit Certificate in Business Specialist. Students may select one of the 11 options, but the certificate is awarded only once.

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

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

Computer-Aided Design Assistant College Credit Certificate

Total credits required for the
College Credit Certificate: 14

The Computer-Aided Design Assistant College Credit Certificate program is designed to prepare students to work as CAD assistants in an architectural office by acquiring a basic understanding of the architectural graphic skills needed to produce working and presentation drawings.

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



Computer-Aided Design Operator College Credit Certificate

Total credits required for the College Credit Certificate: 22

The Computer-Aided Design Operator College Credit Certificate program is designed to prepare students for architectural offices by developing their intermediate skills in architectural graphics to produce working and presentation drawings. After successfully completing the following courses, students can obtain employment assisting architects and drafters with computer-aided drawings and design presentations.

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

Computer Programming College Credit Certificate

Total credits required for the College Credit Certificate: 36

The Computer Programming College Credit Certificate program is designed to provide an opportunity to establish a basic foundation in computer programming for employment in scientific, commercial, industrial and government information technology applications. Graduates are prepared for positions as entry-level programmers, programmer specialists, computer programmers and senior programmers.

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

Computer Specialist College Credit Certificate

Total credits required for the College Credit Certificate: 27

The Computer Specialist College Credit Certificate program is designed to prepare students to work as Computer Repair Assistants in a computer repair shop or the computer maintenance division of a corporation, by acquiring a basic understanding of computer internal architecture and operations.

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

Crime Scene Technician College Credit Certificate

Total credits required for the College Credit Certificate: 12

The College Credit Certificate in Crime Scene Technician will prepare students for employment in the field of criminalistics with a specialty in Crime Scene Investigation or Forensic Science. The student can serve as, but is not limited to, positions of Forensic Science Technician (SOC 194092), Crime Scene Technician, Medical Examiner Investigator, Medical Investigator, Insurance Investigator, Legal Investigator, Forensic Paralegal, Crime Scene Investigator, and Laboratory Technician. Students may also continue their formal education with the College and A.S. in Crime Scene Technology.

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

Early Childhood Education - Administrator College Credit Certificate

Total credits required for the College Credit Certificate: 12

This is a College Credit Certificate with a specialization in Child Care Management. The purpose of this program is to prepare students as early childhood education administrators with the knowledge and skills to effectively manage a quality childcare program or to provide supplementary training for persons previously or currently employed in these occupations. This CCC will allow its holder to apply for a Advanced Director's Credential or continue their education.

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

Early Childhood Education - Preschool College Credit Certificate

Total credits required for the College Credit Certificate: 12

This is a College Credit Certificate in early childhood education with a Preschool specialization. The purpose of this program is to prepare students as early childhood education caregivers with a preschool specialization or to provide supplementary training for persons previously or currently employed in these occupations. This CCC will allow its holder to apply for a National



Child Development Associate credential enabling this student to pursue work as a childcare provider nationally or continue their education.

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

Entrepreneurship College Credit Certificate

Total credits required for the

College Credit Certificate: 12

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

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

Food and Beverage Management College Credit Certificate

Total credits required for the

College Credit Certificate: 30

The Food Service Management College Credit Certificate program is designed to prepare students with a theoretical and practical foundation for a successful career in the food and beverage industry. Students enrolled in this program are prepared for positions such as Catering/Banquet Manager, Food & Beverage Manager, Restaurant Manager and Bar/Lounge Manager. Credits earned can be applied to an Associate in Applied Science degree in Hospitality and Tourism Management.

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

Food and Beverage Operations College Credit Certificate

Total credits required for the

College Credit Certificate: 18

The Food and Beverage Operations College Credit Certificate is designed to prepare students with an in-depth and

practical foundation in management for a successful career in the food and beverage industry. Students enrolled in this certificate are prepared for positions such as Shift Supervisor, Restaurant Supervisor, or Bar/Lounge Supervisor. Credits earned can be applied to an Associate in Science degree in Hospitality Management, which is fully transferable to public universities within the state of Florida.

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

Food and Beverage Specialist College Credit Certificate

Total credits required for the

College Credit Certificate: 12

The Food and Beverage Specialist College Credit Certificate is designed to prepare students with a theoretical and practical foundation for a successful career in the food and beverage industry. Students enrolled in this certificate are prepared for positions such as Restaurant Server, Room Service Attendant, or Banquet Set-Up Staff. Credits earned can be applied to an Associate in Science degree in Hospitality Management, which is fully transferable to public universities within the state of Florida.

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

Horticulture Professional College Credit Certificate

Total credits required for the

College Credit Certificate: 18

The College Credit Certificate in Agriscience for the Horticulture Professional is an advanced certificate for managerial positions in nursery and landscape technology industries. The certificate will prepare students for employment in horticulture and landscape industries as nursery managers, landscape and grounds keeping managers, nursery supervisors, landscape gardeners, and parks workers. Students will learn concepts of plant physiology and growth, plant classification, plant identification and plant care and maintenance to satisfy the growing needs of the nursery industry with an additional emphasis on management skills. If a student should choose to continue their education in Agriscience, the col-

lege credits granted in this program will apply toward an A.S. degree in Landscape and Horticulture Technology.

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

Horticulture Specialist College Credit Certificate

Total credits required for the

College Credit Certificate: 12

The College Credit Certificate in Agriscience for the Horticulture Specialist is an introductory certificate designed to prepare students for positions in the nursery and landscape industries at the entry level. The certificate will prepare students for employment as supervisors in grounds keeping, nursery and greenhouse production, landscape gardeners, and parks workers. Students will learn plant physiology and growth, plant classification, plant identification and plant care and maintenance to satisfy the growing needs of the nursery industry. If a student should choose to continue their education in Agriscience, the college credits granted in this program will apply toward an A.S. degree in Landscape and Horticulture Technology.

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

Infant/Toddler Specialization College Credit Certificate

Total credits required for the

College Credit Certificate: 12

This program is designed to prepare students as early childhood education caregivers with an infant/toddler specialization or provide supplementary training for people previously or currently employed in these occupations. Students will learn essential components of quality care and education including, but not limited to early childhood education, guidance techniques, establishing and maintaining a safe and healthy learning environment, rules and regulations, family interactions, nutrition, child growth and development and professional responsibilities. Employment opportunities include in-home or center-based programs for infants/toddlers.

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

Information Technology Support College Credit Certificate

*Total credits required for the
College Credit Certificate: 28*

The Information Technology Support College Credit Certificate program is designed to provide an opportunity to establish a basic foundation in computer applications for employment in scientific, commercial, industrial and government institutions. Graduates are prepared for positions as data-entry specialists, software applications specialists and office systems specialists to meet the demands of today's automated offices.

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

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

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

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

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

Lean Manufacturing College Credit Certificate

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

This certificate prepares students for initial employment with an occupational title as a Quality Specialist or Lean Specialist in various specialized areas. It also can provide supplemental training for persons previously or currently employed in these occupations. These courses can be applied toward the Associate of Science in Advanced Manufacturing.

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

Marketing Operations College Credit Certificate

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

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

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

Microcomputer Repairer/Installer College Credit Certificate

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

The Microcomputer Repairer/Installer College Credit Certificate program is designed to prepare students to work as Computer Repair Assistants in a computer repair shop or the computer maintenance division of a corporation, by acquiring a basic understanding of computer internal architecture and operations.

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

Microsoft Database Administrator College Credit Certificate

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

The Microsoft Database Administrator College Credit Certificate program is designed to provide an opportunity to

establish a basic foundation in the field of database administration for employment in commercial, industrial and government institutions. Graduates are prepared for positions as database administrators and database developers.

Additional Information: Certificate 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 more 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, 2171 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 units (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 more information please visit
<https://sisvsr.mdc.edu/ps/sheet.aspx>*

Mortgage Finance College Credit Certificate

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

The Mortgage Finance College Credit Certificate program applies toward

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

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

Network Systems Developer College Credit Certificate

Total credits required for the
College Credit Certificate: 41

The Network Systems Developer College Credit Certificate is designed to prepare students to work as Computer Repair Technicians in a computer repair shop or the computer maintenance division of a corporation, by acquiring an in-depth understanding of computer internal architecture, operations and digital systems design operations.

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

Office Management College Credit Certificate

Total credits required for the
College Credit Certificate: 27

The Office Management College Credit Certificate program is the third in a series of three College Credit Certificate programs designed to prepare students for employment as administrative professionals in legal office, general office or office software applications. The legal office option is designed to prepare students for employment as a legal office manager, legal supervisor, senior legal secretary, legal transcriptionist, litigation secretary, or to provide supplemental training for those previously or currently employed in these fields. The general office option is designed to prepare students for assistant, assistant/ supervisor, executive administrative assistant, junior executive assistant, junior administrative assistant, secretary-administrative assistant, office coordinator, office manager and office supervisor. The office software applications option is designed to prepare students for employment as administrative coordinator, customer service supervisor, software applications specialist, digital publisher, document manager, executive administrative assistant, junior operations analyst, payroll specialist, per-

sonal assistant, project administrator/coordinator, proofreader, or to provide supplemental training for people previously or currently employed in these occupations. The program content for each of the three options emphasizes the skills and competencies needed to perform at management level in these specialization areas. There is only one College Credit Certificate in Office Management. Students may select one of the three options, but the certificate is awarded only once.

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

Office Specialist College Credit Certificate

Total credits required for the
College Credit Certificate: 18

The Office Specialist College Credit Certificate program is the second in a series of three College Credit Certificate programs designed to prepare students for employment as administrative professionals in legal office, general office or office software applications. The content of the program develops competency in word processing and document formatting skills, machine transcription, grammatical and vocabulary skills as well as emphasizes a general knowledge of office procedures, human relations, and administrative skills. Employment 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 more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Office Support College Credit Certificate

Total credits required for the
College Credit Certificate: 12

The Office Support College Credit Certificate program is the first in a

series of three College Credit Certificate programs designed to prepare students for employment as administrative professionals in legal office, general office or office software applications. The content of the program provides students with training in general or legal office procedures, telephone skills, records management as well as the development of human relations and English skills. Basic skills in time management, Internet and 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 more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Oracle Database Administrator College Credit Certificate

Total credits required for the
College Credit Certificate: 16

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

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

Oracle Database Developer College Credit Certificate

Total credits required for the
College Credit Certificate: 16

The Oracle Database Developer College Credit Certificate program is designed to provide an opportunity to establish a basic foundation in the field of database development for employment

in commercial, industrial and government institutions. Graduates are prepared for positions as Oracle database developers.

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

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

Passenger Service Agent College Credit Certificate

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

The Passenger Service Agent College Credit Certificate program is designed to give students the skills required to gain employment as a passenger service agent, including gate and ramp responsibilities. Students will be required to do an internship with a commuter or major airline.

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

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

Rooms Division Management College Credit Certificate

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

The Rooms Division Management College Credit Certificate program is designed to prepare students with a theoretical and practical foundation for a successful career in the hotel sales and marketing industry. Students enrolled in this certificate are prepared for positions such as Front Desk Manager, and Guest Relations Manager. Credits earned can be applied to an Associate in Applied Science degree in Hospitality and Tourism Management.

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

Rooms Division Operations College Credit Certificate

*Total credits required for the
College Credit Certificate: 19*

The Rooms Divisions Operations College Credit Certificate is designed to prepare students with a theoretical and practical foundation for a successful career in the lodging industry. Students enrolled in this certificate are prepared for positions such as Front Desk Supervisor or Guest Relations Supervisor. Credits earned can be applied to an Associate in Science degree in Hospitality Management, which is fully transferable to public universities within the state of Florida.

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

Rooms Division Specialist College Credit Certificate

*Total credits required for the
College Credit Certificate: 13*

The Rooms Divisions Specialist College Credit Certificate is designed to prepare students with a theoretical and practical foundation for a successful career in the lodging industry. Students enrolled in this certificate are prepared for positions such as Front Desk Agent, Guest Relations Agent, or Reservation Clerk. Credits earned can be applied to an Associate in Science degree in Hospitality Management, which is fully transferable to public universities within the state of Florida.

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

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

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

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

software as essential tools for translators. Prospective students are required to pass a language proficiency exam to demonstrate fluency in both languages of program study.

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

Web Development Specialist College Credit Certificate

*Total credits required for the
College Credit Certificate: 36*

The Web Development Specialist College Credit Certificate program is to provide an opportunity to establish a basic foundation in the field of 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 more information please visit <https://sisvsr.mdc.edu/ps/sheet.aspx>

Career Technical Education Programs (CTE)

Career Technical Education (CTE) Programs prepare students to enter a specific career or vocation. To complete a program, students must demonstrate that they have mastered specific job-related performance requirements as well as communication and computation competencies and will be awarded a CTE upon the completion of a program. CTE programs vary in length depending on the complexity of the individual program. Students entering programs greater than 450 hours (effective January, 2003) will be tested for basic communication, computation and reading skills. Students who score below the required Department of Education grade level designated for each program will be required to take appropriate basic skills training prior to the completion of their respective programs (§233.0695, FS).

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

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

Academy of International Marketing Career Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 9; Language: 9; Reading: 9

Program Length: 600 contact hours (20 vocational credits)

The total contact hours required for Career Certificate: 600

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

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

Accounting Operations Career Certificate

Minimum TABE Grade Level Required for Certificate and Graduation:

Mathematics: 9; Language: 9; Reading: 9

Program Length: 900 contact hours (30 vocational credits)

The total contact hours required for Career Certificate: 900

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

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

Administrative Assistant Career Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 10; Language: 10; Reading: 10

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

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

The Administrative Assistant program is designed to prepare the student to

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

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

Bail Bond Agent Career Certificate

Program Length: 120 contact hours (4 vocational credits)

The total contact hours required for Career Certificate: 120

The Bail Bonding program includes introduction to the criminal justice system, duties of surety and bail bonding agents, bail bonding process, bail bond laws and regulations. Additional Information: This course is offered by the Legal Assisting Program. Contact the Program Office in Room 3506 or call 305-237-7813 for specific information.

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

Business Computer Programming Career Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 9; Language: 9; Reading: 9

Program Length: 1,200 contact hours (40 vocational credits)

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

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

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



Business Supervision and Management Career Certificate

Minimum Grade Level Required for Certificate and Graduation:

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

The total contact hours required for Career Certificate: 900

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

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

Commercial Art Technology Career Certificate

Program Length: 1500 contact hours (50 vocational credits)

The total contact hours required for Career Certificate: 1500

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

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

CMS Law Enforcement BRT Career Certificate

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

The total contact hours required for Career Certificate: 760

The Law Enforcement Officer program prepares students for certification as Police Officers in the state of Florida. All criminal justice standards and training, Department of Education, and local standards will be met. Graduates are eligible for employment with any law enforcement agency in the state upon graduation from the program and successful completion of the State Certification Exam. Topics include law, human issues, patrol, traffic, investigations and commu-

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

Community Service Officer/Police Service Aide Career Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 10; Language: 10;
Reading: 10

Program Length: 206 contact hours (6.87 vocational credits)

The total contact hours required for Career Certificate: 206

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

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

Correctional Officer - County Career Certificate

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

The total contact hours required for Career Certificate: 532

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

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

Correctional Officer - State Career Certificate

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

The total contact hours required for Career Certificate: 532

The Correctional Officer - State program prepares students for certification as Correctional Officers in the state of Florida. All criminal justice standards and training, Department of Education, and local standards will be met. Graduates are eligible for employment with any cor-

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

Crossover from Correctional Officer to Law Enforcement Officer Career Certificate

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

The total contact hours required for Career Certificate: 434

This program provides training to Florida Certified Correctional Officers in good standing who seek certification as full-time or part-time law enforcement officers. All criminal justice standards and training, Department of Education and local standards will be met. The courses listed below prepare the Corrections Officer for the Law Enforcement State Certification Exam.

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

Customer Assistance Technology Career Certificate

Minimum TABE Grade Level Required for Certificate and Graduation:

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

The total contact hours required for Career Certificate: 450

The purpose of the Customer Assistance Technology program is to

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

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

Electricity Apprenticeship Program Career Certificate

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

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

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

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

Electronic Technology Career Certificate

Minimum Grade Level Required for Certificate and Graduation:

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

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

The Electronic Technology program prepares individuals to assemble, install, operate, maintain, trouble shoot and repair electronic equipment used in industry and related to the design theory and analysis of electronic systems and application. To complete this program, students should be able to use the various types of equipment found in general use throughout the electronic industry. Test of

Adult Basic Education (TABE) is required.

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

Fire Fighter Minimum Standards Career Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 10; Language: 10;
Reading: 10

Program Length: 450 contact hours (15 vocational credits)

The total contact hours required for Career Certificate: 450

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

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

Fire Sprinkler Apprenticeship Program Career Certificate

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

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

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

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

Heating, Ventilation, & Air Conditioning (HVAC) Apprenticeship Program Career Certificate

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

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

The Heating, Ventilation, & Air Conditioning (HVAC) Apprenticeship Program is offered by Miami Dade College in partnership with an industry apprenticeship organization. Students receive a combination of classroom instruction and on-the-job training where they learn the practical and theoretical aspects of the highly skilled occupation of Air Conditioning, Refrigeration, and Heating Technician. This is a four-year program, for a total of 10,000 hours, which upon successful completion, awards the student a Journey Level credential from the trade, as well as a Career Certificate from the College. In order to participate in the apprenticeship program,

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

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

Insurance Marketing Career Certificate

Minimum Grade Level Required for Certificate and Graduation:

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

The total contact hours required for Career Certificate: 450

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

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

Legal Administrative Specialist Career Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 10; Language: 10;
Reading: 10

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

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

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

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

Network Support Services Career Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 9; Language: 9; Reading: 9



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

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

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

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

PC Support Services Career Certificate

Minimum Grade Level Required for
Certificate and Graduation:

Mathematics: 9 Language: 9; Reading: 9

Program Length: 900 contact hours
(30 vocational credits)

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

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

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

Plumbing Apprenticeship Program Career Certificate

Mathematics: 9; Language: 9; Reading: 9

Program Length: 10,000 contact hours
(333.33 vocational credits)

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

The Plumbing Apprenticeship Program is offered by Miami Dade

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

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

Private Investigator Intern Career Certificate

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

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

The purpose of this program is to prepare students for employment as Private Investigator Interns as required by Section 493.6203(6)(b) Florida Statutes, offered in a 24 contact hour course and a 16 contact hour course.

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

Private Security Officer Career Certificate

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

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

The Private Security Officer program consists of two courses required by the state of Florida prior to licensing

as a Security Officer. The Basic Phase A course allows the officer to obtain a temporary license. Officers must complete the Basic Phase B course within two years to maintain their license.

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

Real Estate Broker Career Certificate

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

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

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

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

Real Estate Sales Agent Career Certificate

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

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

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

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

Sheet Metal Apprenticeship Program Career Certificate

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

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

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

dent must be employed full-time with a participating sponsor. Test of Adult Basic Education (TABE) is required.

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

Television Production Career Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 9; Language: 9; Reading: 9
Program Length: 1,650 contact hours
(55.0 vocational credits)

The total contact hours required for Career Certificate: 1,650

The Television Production program is a practical, hands-on introduction to the policies and procedures, equipment and tasks that must be understood by the entry-level television broadcast technician. In addition to the laboratory simulations that each course contains, extensive internship experience is provided to prepare the participant for successful job entry. Test of Adult Basic Education (TABE) is required.

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

Teller Operations Career Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 9; Language: 9;
Reading: 9

Program Length: 150 contact hours
(5 vocational credits)

The total contact hours required for Career Certificate: 150

The Teller Operations Career Certificate program provides the hands-on training and background information needed for obtaining a position as a teller in today's banking industry. It reflects the changing responsibilities of tellers due to industry and legal compliance issues that are occurring in the financial services area.

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

Travel and Tourism Industry Operations Career Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 9; Language: 9;
Reading: 9

Program Length: 600 contact hours
(20 vocational credits)

The total contact hours required for Career Certificate: 600

The purpose of this program is to prepare students for employment in the travel industry and to provide continuing workforce education for those persons previously or currently employed in this industry. The program consists of three areas of specialization that include a core and one area of specialization that does not include the core. Upon completion of the program, the student will be credentialed as a Tour Escort.

The content should include, but is not limited to, selling, transporting, advertising, displaying and planning travel services. Test of Adult Basic Education (TABE) is required.

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



Allied Health/Nursing Programs

Medical Center Campus

The College offers a variety of educational opportunities for those who wish to prepare for health care careers. Each nursing and health science program is designed to offer a combination of technical and general education courses. The technical courses are both didactic and clinical, requiring students to apply their knowledge in a health care setting. The programs are usually two years in length and lead to an Associate in Science or Associate of Applied Science degree. The College also offers shorter College Credit Certificate and Career Technical Education programs in the health care fields.

Any students interested in any of the Health Science programs are encouraged to consult advisors in the New Student Center to receive the most current information regarding program admission.

Program Admission

Students should not interpret acceptance into the College as automatic eligibility to enter the nursing or health science programs. Those desiring enrollment in a program must first consult with an advisor in the New Student Center at Medical 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 GED credential
2. Complete an Application for Admission to Miami Dade College
3. Submit the completed program application by the due date to the Medical 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

Individual programs may require additional testing.

An applicant who has ever been convicted of a felony or is the subject of an arrest pertaining to a controlled substance should confer with an authorized representative of the regulatory/licensing agency to determine eligibility for future credentialing and practice. Graduates are subject to the laws, policies and procedures of their respective regulatory/licensing boards. The College cannot assure licensure/certification.

Students are subject to the policies and procedures of affiliating agencies.

Admission requirements are subject to revision. Students should obtain the most current program information from the New Student Center on the Medical Center Campus. A program may have additional published selection criteria.

Student Selection/Progression

Most health science 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 non-collegiate preparation in nursing or an health science field may be awarded credits through examination and validation.

In keeping with its mission and goals, and in compliance with Section 504



of the Rehabilitation Act of 1973 and the Americans with Disabilities Act, the Medical 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 health science must be able to meet the physical and emotional requirements of the academic program. In addition, students admitted to programs in nursing and health science 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 health science professions, each program reserves the right to require a student to withdraw. The programs will assert this right for the student who does not meet all of the pub-

lished technical/performance standards, and the student will be guided into another curriculum of study at the College.

Special and Additional Requirements to Specific Associate in Science Degree Programs

Emergency Medical Services

1. Entry into any Emergency Medical Services (EMS) course is restricted to students who have met with an EMS advisor and have received approval to enter the class.
2. If a student wishes to take any EMS class, he or she should note that the classes must be taken in order. Students must complete First Responder (EMS 1059, EMS 1059L), then Emergency Medical Technician (EMS 1119, 1119L, 1431) and finally, Paramedic (separate courses).
3. If a student wishes to enter Emergency Medical Technician (EMT) or paramedic courses, he or she must have passing scores on the 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 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 College degree-seeking student with all required college preparatory courses successfully completed.
2. Cumulative GPA of 2.5 or higher for any college-level courses completed and a grade of C or above for any course required for the Nursing program.
3. No more than a total of three grades of D, F or W in the natural science courses required for the program.
4. No more than two enrollments (one D, F or W) for any individual science course required for the program.

The School of Nursing reserves the right to add, withdraw, revise or substitute courses as necessary to maintain the quality of the nursing programs.

Generic Option

This is the basic option for the student who seeks a career in nursing. The following descriptions of options are for students with specific educational or nursing backgrounds. Students can choose any option for which they are eligible. The full-time track takes four semesters to complete. Classes begin each August and January. The part-time track takes eight semesters and begins in August. Refer to the School of Nursing Information Web site 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 Practical Nursing 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

ic 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 of Applied Science degree by completion of 20 additional credit hours.

Further information may be obtained by calling the Radiologic Sciences Department at 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 Medical Center Campus. The natural sciences and general education courses offered by the College include:

BSC 2085/6	Human Anatomy and Physiology & Labs
CLP 1006	Psychology of Personal Effectiveness
CHM 1033	Chemistry for Health Sciences
DEP 2000	Human Growth and Development
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 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

Medical Center Campus provides professional continuing education for the health care community by offering courses in many of the nursing and health science disciplines. Health care providers matriculate in these courses to meet state licensure, national registry or certification requirements for their respective board or association. Students take these courses to maintain and update competence, learn new skills in their field and/or to become multi-skilled/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 Courses

These are 10-week Florida Board of Nursing-approved remediation courses designed to prepare individuals for the National Council Licensing Examinations for registered nurses (NCLEX-RN) and practical nurses (NCLEX-PN).

Licensing Examination Review Courses

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

Contact Hours for Relicensure

These courses focus on topics relevant to health care professionals, with contact hours being provided for relicensure.

The courses include CPR, ACLS, preventing medical errors, HIV/AIDS and domestic violence.

Cross-Training/ Multi-Skilling

These courses build on current expertise and expand interpretation practice possibilities. The courses include EKG, phlebotomy, basic x-ray machine operator, MRI and IV therapy for LPNs.

Internships/Preceptorships

Clinically oriented programs are offered to cross-train registered nurses to assume new challenges. These programs are offered in several disciplines, including perioperative, childbirth education, emergency room and critical care nursing.

Community Education

The College provides community-based organizations (e.g. schools, churches and nonprofit organizations) with seminars, workshops, short courses, lectures and health fairs. These events cover a broad range of health-related topics.

Associate in Science

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 at 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 at 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 supervi-



sion of the daily operations of a Health Information Department. Management of computerized health information is emphasized. Clinical experiences are provided under the supervision of qualified professionals to enhance classroom instruction and demonstrate current advances in health information practice. A grade of C or better is required in all program courses.

Histologic Technology Associate in Science

*Total credits required for
Associate in Science degree: 76*

The Histologic Technology program prepares the student for employment in a wide variety of practice settings including: hospitals, clinics, clinical laboratories, veterinary pathology and forensic pathology. A histotechnologist will be able to freeze, embed, and cut tissues, mount tissue samples on slides and stain them with dyes to make the cell details visible under the microscope. Graduates are eligible to sit for the Florida state licensure and registry with the American Society of Clinical Pathologists and equivalent licensure.

Additional Information: Due to the limited number of students 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 at 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 at 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 at 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, and 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 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. Graduates are eligible to apply to the National Council Licensing Examination for Registered Nurses (NCLEX-RN).

Selection is based on the student's cumulative grade point average (GPA) and successful completion 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 2.5 or higher and a grade of C or above for any course required for the Nursing Program
- No more than a total of three grades of D, F or W in the Natural Science courses required for the program
- No more than two grades of D, F or W in any individual Natural Science course required for the program

Additional Information: Due to the limited number of students 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 10 years of admission into the associate degree Nursing program. If these grades are more than 10 years old, please see an academic advisor.

The Florida Board of Nursing requires disclosure of arrests (except traffic violations) upon application to nursing programs. Upon completion, graduates are eligible to apply to write the NCLEX-RN. Final determination to become licensed rests with the Board of Nursing.

Nursing, R.N. Generic - (Full-Time Track) Associate in Science

*Total credits required for
Associate in Science degree: 72*

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

The Generic Nursing option is designed to prepare students without previous health care education for careers as registered nurses. This program is accredited by the 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. Graduates are eligible to apply to write the 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 College degree-seeking student with all required college preparatory courses successfully completed.
- Cumulative GPA of 2.5 or higher and a grade of C or above for any course required for the Nursing program.
- No more than a total of three grades of D, F or W in the Natural Science courses required for the program.
- No more than two grades of D, F or W in any individual Natural Science course required for the program.

Additional Information: Due to the limited number of students 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 10 years of admission into the associate degree Nursing program. If these are more than 10 years old, please see an Academic advisor.

The Florida Board of Nursing requires disclosure of arrests (except traffic violations) upon application to nursing programs. Upon completion, graduates are eligible to apply to write the NCLEX-RN. Final determination to become licensed rests with the Board of Nursing.

Nursing, R.N. Generic - (Part-Time Track) Associate in Science

*Total credits required for
Associate in Science degree: 72*

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

The Generic Nursing Option is designed to prepare students without previous health care education for careers as Registered Nurses. This program is accredited by the 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. Graduates are eligible to apply to write the NCLEX-RN. The part-time track is designed for individuals who must work while they attend school.

Selection is based on the student's cumulative grade point average (GPA) and successful completion 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 2.5 or higher and a grade of C or above for any course required for the Nursing program.
- No more than a total of three grades of D, F or W in the Natural Science courses required for the program.
- No more than two grades of D, F or W in any individual Natural Science course required for the program.

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

Note: Anatomy & Physiology grades must be earned within 10 years of admission into the associate degree Nursing program. If these are more than 10 years old, please see an academic advisor.

The Florida Board of Nursing requires disclosure of arrests (except traffic violations) upon application to nursing programs. Upon completion, graduates are eligible to apply to write the NCLEX-RN. Final determination to become licensed rests with the Board of Nursing.

Nursing, R.N., 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. Graduates are eligible to apply to write the NCLEX-RN. www.fl DOE.org/CC/Educators/bach_app.asp

Selection is based on the student's 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 2.5 or higher and a grade of C or above for any course required for the Nursing program.
- No more than a total of three grades of D, F or W in the Natural Science courses required for the program.
- No more than two grades of D, F or W in any individual Natural Science course required for the program.
- Successful completion of the National League for Nursing Exam (NLN) with a score of 128 or higher, no more than five years old, or successful completion of the Practical Nursing Achievement Test with a score of 70 percent 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 10 years of admission into the associate degree Nursing program. If these are more than 10 years old, please see an Academic advisor.

The Florida Board of Nursing requires disclosure of arrests (except traffic violations) upon application to nursing programs. Upon completion, graduates are eligible to apply to write NCLEX-RN. Final determination to become licensed rests with the Board of Nursing.

Nursing, R.N., Bridge - (Part-Time Track) Associate in Science

*Total credits required for
Associate in Science degree: 72*

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

The Bridge Option in Nursing is designed to prepare licensed practical nurses (LPN) and selected other individuals with national licensure or certification for practice as a registered nurse (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. Graduates are eligible to apply

to write the NCLEX-RN. The part-time track is designed for individuals who work full-time. Selection is based on the student's cumulative grade point average (GPA) and successful completion 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 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 three grades of D, F or W in the Natural Science courses required for the program.
- No more than two grades of D, F or W in any individual Natural Science course required for the program.
- Successful completion of the National League for Nursing with a score of 128 or higher, no more than five years old, or successful completion of the Practical Nursing Achievement Test with a score of 70 percent 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 10 years of admission into the associate degree Nursing program. If these are more than 10 years old, please see an Academic advisor.

The Florida Board of Nursing requires disclosure of arrests (except traffic violations) upon application to nursing programs and upon application to write NCLEX-RN. Final determination to become licensed rests with the Board of Nursing.

Opticianry Associate in Science

*Total credits required for
Associate in Science degree: 72*

The Opticianry program simultaneously prepares students for three ophthalmic health care careers: optician, optometric technician and ophthalmic medical assistant. A concentrated presentation of general education courses combined with career development and clinical experience accomplishes this 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 at 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 at Medical Center Campus.

Physician Assistant Associate in Science

*Total credits required for
Associate in Science degree: 88*

Graduates of the Physician Assistant program are prepared for employment as part of the health care delivery team to work under the direct supervision of a licensed physician. Students are instructed in various aspects of medical care, theory, instrumentation, diagnosis and treatment including prescribing and administration of drugs. There is a concentration of general education and Physician Assistant courses combined with hospital and office practice under the supervision of a licensed physician. Graduates will be eligible to sit for the National Commission of Certification of Physician Assistants.

Respiratory Care Associate in Science

*Total credits required for
Associate in Science degree: 76*

The Respiratory Care program prepares the successful graduates for employment in health agencies where they will work with physicians and other professionals in treating patients with respiratory ailments or injuries affecting the respiratory function. Emphasis will be placed on supervised clinical instruction and practice in local health care facilities. Completion of this two-year accredited program enables the graduate to apply for entry into the examination Process of the National Board of Respiratory Care. A grade of C or better is required in each course.

Additional Information: Due to the limited number of students that can be accepted into the Respiratory Care program, it is important that applicants be properly informed. For information, advisement, application forms and deadline dates, interested students should contact the Department of Cardiorespiratory Technologies at 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 of Applied Science (A.A.S.)

The two-year Associate of 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 may not articulate or transfer to the upper-division. 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 of Applied Science

Total credits required for
the degree: 77

The Radiography program is an Associate of Applied Science degree, which provides a broad base of education and performance-based clinical experience in all technical aspects of work as a Radiographer. Experience is provided in all routine general and fluoroscopic procedures, special procedures and in the use of the specialized equipment and techniques available in the affiliated

clinical education centers. The graduate is eligible to apply to take the Registry Examination of the American Registry of Radiologic Technologists. The application deadline is Feb. 15 for the class beginning the following summer term.

Additional Information: All applicants must attend an Information Session before acceptance into the Radiography program. Applicants must pass a physical, meet physical requirements, must complete an approved CPR course and an approved HIV/AIDS course before beginning the Radiography program.

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

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



College Credit Certificates

College Credit Certificate programs are subsets of selected Associate in Science degrees. The CCC meets the Florida Department of Education Certified College Credit program requirements and the student receives an institutional College Credit Certificate upon completion of the program. The college credits granted in these programs will apply toward the related Associate in Science degree. The program's title is added to the student's transcript.

STUDENTS IN ALL PROGRAMS SHOULD CHECK THEIR INDIVIDUALIZED DEGREE AUDIT REPORT TO DETERMINE THE SPECIFIC GRADUATION POLICIES IN EFFECT FOR THEIR PROGRAM OF STUDY. REQUIREMENTS MAY CHANGE BASED ON THE YEAR AND TERM A STUDENT ENTERS MIAMI DADE COLLEGE. THE DEGREE AUDIT REPORT INCLUDES CURRENT GRADUATION REQUIREMENTS. THE FINAL RESPONSIBILITY FOR MEETING GRADUATION REQUIREMENTS STATED IN THE DEGREE AUDIT REPORT RESTS WITH THE STUDENT.

Emergency Medical Technician - Basic College Credit Certificate

Total credits required for the Certificate: 11

The Emergency Medical Technician - Basic College Credit Certificate is a one-semester program, which prepares students to function in the hospital and pre-hospital environment. Graduates of this program can perform clinical data collection, patient assessment and provide immediate care and safe relocation of the acutely ill. Satisfactory completion of this program will qualify the graduate to sit for the state and/or national EMT certification examination. This program is approved by the Florida Department of Health and Rehabilitative Services.

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

Nuclear Medicine Technology Specialist College Credit Certificate

Total credits required for the College Credit Certificate: 48

Students in this track must have an earned degree (minimum A.S./AAS), and must have completed CHM1033, CHM1033L, MAC1105 and PHY1004 prior to admission into the Nuclear Medicine Technology Specialist College Credit Certificate program.

The Nuclear Medicine Technology program is designed to prepare selected students to qualify as nuclear medicine technologists in hospitals, outpatient diagnostic imaging centers, and private 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.

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

Career Technical Education Programs

Career Technical Education (CTE) Programs prepare students to enter a specific career or vocation. To complete a program, students must demonstrate that they have mastered specific job-related performance requirements as well as communication and computation competencies and will be awarded a CTE upon the completion of a program. CTE programs vary in length from 63 to 1,905 contact hours depending on the complexity of the individual program. Students entering programs greater than 450 hours (effective January, 2003) will be tested for basic communication, computation and reading skills. Students who score below the required Department of Education grade level designated for each program will be required to take appropriate basic skills training prior to the completion of their respective programs (§233.0695, FS). Career Certificate students are eligible for financial aid provided they are enrolled in programs greater than 600 credit hours. Health Science programs are offered at the Medical Center Campus.

Massage Therapy - Accelerated Option Career Certificate

Minimum Grade Level Required for Certificate and Graduation:
Mathematics: 9; Language: 10;
Reading: 10

Program Length: 750 contact hours
(25 vocational credits)

The total contact hours required for Career Certificate: 750

The two-semester program prepares individuals to provide various techniques of massage of the back, head and feet, including reflexology, rolling and trigger point therapy. There is an emphasis on the therapist/client rela-

tionship and records management for clients and payment. Upon successful completion of this program, the graduate is eligible to sit for the Florida Massage Therapy licensure examination. Test of Adult Basic Education (TABE) is required.

Additional Information: MSS0995 will be awarded to individuals who are licensed Physical Therapists or Physical Therapist Assistants. MSS0995 provides for credit for the following exempt courses: HSC0003, MSS0156, MSS0156L, MSS0300, MSS0300L and MSS0803C.

Due to the limited number of students 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 New Student Center at Medical Center Campus.

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

Massage Therapy - Generic Option Career Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 9; Language: 10;
Reading: 10

Program Length: 750 contact hours
(25 vocational credits)

The total contact hours required for Career Certificate: 750

The two-semester program prepares individuals to provide various techniques of massage of the back, head and feet, including reflexology, rolling and trigger point therapy. There is an emphasis on the therapist/client relationship and records management for clients and payment. Upon successful completion of this program, the graduate is eligible to sit for the Florida Massage Therapy licensure examination. Test of Adult Basic Education (TABE) is required.

Additional Information: 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 New Student Center, Medical Center Campus. HSC0003 - Introduction to Health Care or its equiv-

alent will be required for admission into the Massage Therapy Program.

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

Massage Therapy - Transitional Option Career Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 9; Language: 10;
Reading: 10

Program Length: 750 contact hours
(25 vocational credits)

The total contact hours required for Career Certificate: 750

The two-semester program prepares individuals to provide various techniques of massage of the back, head and feet, including reflexology, rolling and trigger point therapy. There is an emphasis on the therapist/client relationship and records management for clients and payment. Upon successful completion of this program, the graduate is eligible to sit for the Florida Massage Therapy licensure examination. Test of Adult Basic Education (TABE) is required.

Additional Information: MSS0996 will be awarded to individuals who are licensed in an Allied Health profession and/or Nursing (associate degree or higher). MSS0996 provides for credit for the following exempt courses: HSC0003, MSS0156 and MSS0156L.

Due to the limited number of students 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 New Student Center at Medical Center Campus.

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

Medical Assisting Career Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 10; Language: 10;
Reading: 10

Program Length: 1,300 contact hours
(43.3 vocational credits)

The total contact hours required for Career Certificate: 1,300

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 New Student Center at Medical Center Campus 305-237-4374.

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

Medical Coder/Biller Career Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 9; Language: 11;
Reading: 11

Program Length: 1,000 contact hours
(33.3 vocational credits)

The total contact hours required for Career Certificate: 1,000

The Medical Coder/Biller program prepares individuals for employment as Medical Coder/Billers. The student will learn to translate diagnoses and procedures into numerical designation (coding) using the International Classification of Diseases (ICD-9-CM)

and Current Procedural Terminology (CPT-4). The program involves coding, classifying and indexing diagnoses and procedures for purposes of standardization, retrieval and statistical analysis. The student will also be trained to prepare and file medical insurance claim forms for reimbursement. Electronic claims transmission is included. There is special emphasis on ethical and legal responsibilities, data quality, financial reimbursement, Diagnosis Related Groups (DRGs) and Ambulatory Patient Classification (APCs). Test of Adult Basic Education (TABE) is required.

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

Pharmacy Technician Career Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 11; Language: 10;
Reading: 10

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

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

The Pharmacy Technician program prepares individuals for employment as Pharmacy Technicians. The Pharmacy Technician works primarily in retail and hospital pharmacies under the supervision of a registered pharmacist in the packaging and distribution of medication. Test of Adult Basic Education (TABE) is required.

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

Phlebotomy Career Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 9; Language: 10;
Reading: 10

Program Length: 165 contact hours
(5.5 vocational credits)

The total contact hours required for Phlebotomy: 165

The Phlebotomy program is designed to prepare students for employment in a hospital laboratory, blood center or other health care facility to draw blood by venipuncture and capillary puncture.

Students are taught safe and efficient work practices in obtaining adequate and correct blood specimens, labeling specimens and transporting specimens correctly to the appropriate laboratory sections. The Center for Disease Control (CDC) guidelines for HIV/AIDS, Hepatitis B and other diseases are stressed.

Additional Information: Due to the limited number of students 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 New Student Center at Medical Center Campus.

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

Practical Nursing Career Certificate

Minimum Grade Level Required for Certificate and Graduation:

Mathematics: 11; Language: 11;
Reading: 11

Program Length: 1,350 contact hours
(45 vocational credits)

The total contact hours required for Career Certificate: 1,350

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, provide more accessible programs countywide, and be more responsive to the needs of business and industry.

School of Architecture and Interior Design

The School of Architecture and Interior Design is a Collegewide entity administered at Wolfson Campus. Academic programs are offered throughout the College to provide outstanding educational opportunities and state-of-the-art training to students in the architecture, interior design and construction fields.

The School of Architecture and Interior Design offers the Associate in Arts degrees with concentrations in architecture, building construction, interior design and landscape architecture. Upon completion, graduates transfer to upper-division programs at state institutions and elsewhere.

For students desiring intensive training leading to employment in a variety of occupations in the above fields, the School of Architecture and Interior Design offers the Associate in Science in architectural design and construction technology, building construction technology and interior design technology. In addition, students can also graduate with a College Credit Certificate as a computer-aided design assistant and as a computer-aided design operator.

The disciplines of architecture and interior design are very similar in relation to the type of learning that students must acquire in the two years of study at the College. There are also widely diverging outcomes regarding the different areas of specialization in advanced courses. These disciplines are task-driven and task-intensive. Consequently, assessments are done in every studio class on a continuing basis, project by project, and at 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 Health Sciences

The Medical Center Campus is committed to assisting qualified students interested in pursuing careers in the health science professions. Health Science professionals provide more than 60 percent of all health care administered in the United States. The School of Health Sciences offers more than 20 challenging vocational, certificate and degree programs, such as respiratory therapy, opticianry, medical laboratory technology and health information management.

Programs in the School of Health Sciences prepare students for employment in a wide variety of settings including hospitals, clinics, research centers, long term care facilities, physician's offices and wellness centers. In collaboration with more than 100 health care facilities throughout Miami-Dade County, students receive the necessary theory, laboratory experience and clinical practice. Students use state-of-the-art equipment and are supervised by licensed professional faculty. Health Science programs are fully accredited through their respective state and national associations. Most programs have limited access. Program completion affords the graduate the opportunity to seek employment in high-demand professions while receiving a competitive salary. Interested students are encouraged to contact the Medical Center Campus at 305-237-4141 to receive current information regarding program requirements, application procedures and selection process for the specific Health Science program of interest.

School of Aviation

The Eig-Watson School of Aviation 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 programs to prepare students for careers in business or to start a successful business of their own, including the Bachelor of Applied Science with a major in Supervision and Management and the Associate in Science degree in Business Administration. In addition to Associate in Arts and Associate in Science degrees, the School offers College Credit Certificates as well as Associate of Applied Science degrees which are designed for immediate entry into the workforce. Course offerings are available in a wide number of disciplines including accounting, business administration, economics, entrepreneurship, management, marketing, international business, financial services, hospitality & tourism and office systems technology. The School of Business has a long tradition of preparing students to meet the needs of our local workforce and partnering with industry to offer students cutting-edge instruction in various fields. The School has become known for excellence in providing customized training to cover corporate needs. School of Business courses are offered at

the Wolfson, Kendall, Homestead, North, Hialeah, InterAmerican and West campuses as well as through the Virtual College.

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.

The school offers Associate in Arts and Associate in Science degrees, as well as College Credit and Career Technical Education Certificates. Among the programs offered are: Air Conditioning, Building Construction Management, Computer Programming and Database Development, Electronics/Computer Repair, Engineering, Internet Technologies, Network Technologies, Telecommunications and others.

The School of Computer and Engineering Technologies offers courses at the Hialeah, Homestead, InterAmerican, Kendall, North, West 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.

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 campus, 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 students improve their professional or occupational skills. The topics covered include computer workshops, certification courses, preparing oral presentations, building contractor license exam preparation, as well as several hundred work-related topics. Adult education courses prepare the student to pass the GED test or master the basic skills needed for success in one of the College's accredited programs.

The School of 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 workforce 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, and 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 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 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 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 provides 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 & Design Technology

The mission of the School of Entertainment & Design Technology (SEDT) is to effectively inspire and train students to lead the next generation of high-tech media producers. As creative and successful alumni, graduates will provide the entertainment industry with a highly skilled workforce. Bringing dreams to life through high-tech digital training, the School of Entertainment & Design Technology emphasizes "real world" instruction in the cutting-edge technologies driving the film, television and radio, graphic and web design, photography, computer animation, and music business industries. As workforce development programs, SEDT is focused on providing those skills and experiences necessary for students to successfully gain employment in the highly competitive entertainment and design industries. The School of Entertainment & Design Technology is a cluster of design and media production programs including:

- Film Production
- Radio & Television Broadcasting
- Computer Animation
- Music Business
- Graphic Design
- Web Design
- Photography Technology

Miami Dade College created programs of study as the use of new production technologies evolved. The Television & Radio and Music Business programs were created in the early 1970s, followed by the Film Production

program in the early 1990s. Most of the subjects taught were founded within the past five years in response to increased reliance on digital technologies and an expanding South Florida entertainment industry. The recent renovations of the production facilities and labs at the College's North, Kendall, Wolfson, and Homestead campuses include new lecture and performance halls, a sound and lighting stage, 2 television studios, a sound recording studio, post production editing suites, and a 24/7 cable TV broadcast facility all designed to offer students state-of-the-art, industry-specific learning environments.

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 mission of the Miami Dade College School of Justice is to offer valuable academic programs to degree-seeking students and provide high quality workforce education to public safety professionals.

The School of Justice academic programs are:

- A.A. in Criminal Justice Administration
- A.S. in Criminal Justice Technology - Generic



- A.S. in Criminal Justice Technology - Law Enforcement
- A.S. in Criminal Justice Technology - Corrections
- BAS with a major in public safety management

The A.A. in Criminal Justice Administration is a transferable degree. It prepares students for upper-division studies, such as transfer into the Bachelor of Applied Science Program. Students wishing to attend law school find this degree an important first step toward achieving their goal.

The A.S. degrees in criminal justice technology are for those students who wish to continue their education following completion of one of the basic training academies.

The BAS is a workforce education degree that combines rigorous academic training with hands-on, practical experience. It is a 120-credit-hour program incorporating lower- and upper-division coursework, including the required 45 credit hours of general education requirements and electives, 30 credit hours of lower-division requirements, 30 credit hours of upper-division requirements, and 15 credit hours in one of ten tracks. Qualified students choosing to enter either the Basic Law Enforcement Academy or Basic Corrections Academy spend the last semester of their four-year program in one of our basic recruit training programs. Students completing either academy track will find that in four years they have earned a BAS and are eligible to sit for the State Officer Certification Exam in either law enforcement or corrections.

The School of Justice workforce education programs are designed to develop and/or improve the knowledge, skills and abilities of public safety officers and individuals who aspire to hold positions in public safety including law enforcement officer, corrections officer, public service aide, and private sector security officers.

Basic Recruit Training: The School of Justice offers Basic Recruit Training Programs (BRTP) in the areas of law enforcement, corrections and public service aide. Students who successfully complete one of the BRTP in Law Enforcement or Corrections, and who pass the State Officer Certification Exam, are eligible to receive up to 34 credits toward an A.S. degree in crimi-

nal justice technology. Credit conversion occurs in two separate phases.

Private Sector Security Training: Private sector training is provided to those who seek D (Security Officer), G (Statewide Firearm) and E (Recovery Agent) class licensing.

School of Nursing

The School of Nursing offers a Bachelor of Science in Nursing (BSN) degree to provide students and practicing nurses with a high-quality, accessible, cost-effective and seamless academic program designed to meet the critical workforce need for baccalaureate-prepared nurses in the state of Florida.

Two A.S. degrees and two Career Technical Education programs are also offered. 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 state licensure examination to become licensed midwives. Licensed midwives provide independent, comprehensive maternity care to low-risk clients. Students entering either of these associate degree programs should possess college-level cognitive, communication and computational skills. Specific general education and science courses are included in the curriculum; selected courses are required before admission to these healthcare programs.

Two Career Technical Education 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, air conditioning, plumbing and sheet metal.

Center for Economic Education

(Wolfson Campus)

The mission of the Center for Economic Education is to work closely with the educational communities in Miami-Dade and Monroe counties to develop greater awareness for economic literacy. Among the most popular of the Center's programs are the four recertification credit courses offered to area teachers in grades K-12. Of these, the national Stock Market Game is played in grades 5-12 in each of the major semesters. The Free Enterprise Bank Program, available to grades K-12, provides real money for class business activities. The center works with area educational administrators to create and assist in the development of curriculum materials. These materials have included a tourism and development program, a Civics Teachers Resource Guide, Elementary Program of the Economics of the Stanford Achievement Test and

many more program examples at each of the major grade levels.

It is the center's goal to provide the latest and best materials and programs in economic education to our schools. Through these opportunities the Center seeks to promote greater understanding on the part of our young people about the economy in which they live and the economic climate in which they will work.

Centers of Electronics Emphasis and Electronics Specialization

(North Campus)

The Center of Electronics Emphasis program is a partnership program developed by the Florida High Technology and Industry Council, the Florida Legislature, the Division of Vocational, Adult, and Community Education, the 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 micro-computer service and maintenance.

Center of Excellence in High Technology/ Electronics

(North Campus)

The Center of Excellence in High Technology/Electronics at the North Campus is an interdisciplinary program that presently incorporates the departments of engineering and architecture. The center has programs in computers and computer-assisted drafting. Courses are run in different formats depending on need.

Center for Financial Training

(Wolfson Campus)

The South Florida Center for Financial Training (SFCFT) is a local training provider of the American Bankers Association (ABA). As the largest industry-sponsored adult education program in the world for financial services professionals, SFCFT benefits more than 3,500 financial services professionals locally and is one of 30 centers located throughout the United States and Puerto Rico.

SFCFT is a unique source for commercial banking and financial industry training and education. SFCFT is a non-profit educational organization 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 Academy of International Banking (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 serves as the foundation of our learning experience and values the knowledge we acquire daily and use for the rest of our lives.

Campuses offer recreation and leisure courses and activities for those who wish to enrich their cultural lives or improve their personal efficiency and professional skills. No record of previous education is necessary and little or no homework is required. No grades are given through 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 Adult Education program offers students the opportunity to learn basic skills to earn a GED or to pursue further training through the College's vocational programs.

The College offers courses both on and off campus to meet the needs of

the community, and makes every effort to begin a course when an adequate number of people request it.

Computer Institute

The Computer Institute (CI) meets the computer-related training needs of business, labor and industry. Courses are offered both on-campus and at on-site training locations. The CI offers a comprehensive program that includes classes in most of the commonly used software packages. Classes are available to all age groups, including senior citizens. During the summer, a comprehensive Kids/Teen Program is offered. A limited schedule of classes is available in Spanish. The CI offers state-of-the-art computers and software, small class sizes in a workshop format (a hands-on environment), a competitive fee structure and quality instruction from industry professionals.

Confucius Institute

Miami Dade College (MDC) has long been committed to strengthening educational ties with China. MDC, in partnership with Xuzhou Normal University (XNU), has been selected for the honor of hosting the only Confucius Institute to be established in South Florida and classes will begin Fall 2010.

MDC's Confucius Institute is committed to building bridges of understanding through furthering knowledge of the Mandarin language and the Chinese culture. The institute is sponsored by the Chinese Language Council, a non-governmental affiliate of the Chinese Ministry of Education.

For further information, please contact the Director of the Confucius Institute.

Continuing Education Units (CEU)

Miami Dade provides students with the opportunity to obtain continuing education units (CEUs) for certain noncredit courses. The CEU program encourages long-range education goals and lifelong learning, and permits adult students to aggregate a number of continuing education courses to meet their personal needs.

The CEU is used as the basic means for recognizing an individual's participation in, and for recording an institution's offering of continuing workforce education courses. A CEU is defined as 10 contact hours of participation in an organized, continuing education experience under responsible sponsorship, capable direction and qualified instruction. Transcripts indicating completion of continuing workforce education courses designated for 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 lev-

els, transcripts or tests required. Most classes meet weekends or evenings and are scheduled on and off campus for convenient access. The center has many programs:

1. Landscape/gardening/home Improvement courses encourage the public to utilize environmentally appropriate landscape materials and to maintain their home and landscape in ways that minimize environmental impact. Short-term training certification preparation and opportunities to participate in segments of credit courses improve the skill of landscape professionals.
2. Hands-on, interactive environmental education field trip programs are available for school groups Kindergarten-grade 9.
3. Nature-based teacher planning day/holiday camps serve the needs of working parents while sensitizing children in pre-kindergarten through seventh grade to the natural world. Children participate in nature games,

crafts, outdoor activities and cooperative games.

4. Scout Days provide Boy and Girl Scout groups opportunities to participate in nature-based activities designed to meet badge requirements as well as to implement Eagle Scout and Gold Award projects.

Field trips, day camps and scout days are held at our Environmental Center, which includes a pine rockland, a lake, a floating dock, chickee huts, butterfly gardens, a butterfly house, organic vegetable sand gardens, a composting demonstration exhibit, and an Everglades waterflow demonstration exhibit.

The center also offers courses on the use of natural/alternative healing methods, skills for life change, and courses in non-traditional spirituality. Initiatives included Native American cultural programs, expanded pine rockland research, development of community service project opportunities for high school students, weekend recreational and educational programs for adults and families.



Earth Ethics Institute

(Collegewide; Located on the Wolfson Campus)

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.

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. 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

EARTH LITERACY COLLOQUIUM AND EARTH FELLOWSHIP PROGRAM

Earth Ethics Institute encourages students to develop an understanding

of Earth Literacy. The IDS 1150 Earth Literacy & Sustainability 1 is an interdisciplinary credit course with an environmental ethics and cosmological overview. The Colloquium meets weekly and includes discussions of ecological issues, current films on pertinent contemporary issues, vegan food preparation, an introduction to organic gardening and community supported agriculture, and immersion field trips.

LAW DEGREE WITH AN ENVIRONMENTAL SPECIALTY

EEI and MDC have a special relationship with St. Thomas University (STU) to offer students an opportunity to earn a law degree with an environmental specialty in six years instead of seven. MDC students participating in this special program earn an Associate in Arts degree at MDC (two years), transfer to STU in the third year and take courses directly relevant to the practice of environmental law and administration (one year). The curriculum's fourth year is the required first-year program of the STU School of Law as well as the fourth year of studies resulting in a B.A. degree in environmental justice. For students accepted into the law school, the curriculum of the fifth and sixth years addresses legal areas of direct relevance



to the practice of environmental law and prepares students for the Florida Bar Examination (three years).

EARTH ETHICS INSTITUTE CHALLENGE GRANTS

Every year, Earth Ethics Institute sponsors several discipline-specific challenge grants for MDC students and awards certificates and cash prizes for innovative entries. Participants are asked to explore sustainable and regenerative ecological themes related to the specific disciplines. Every year, the Earth Ethics Institute offers the Visions of Nature in South Florida Photography Challenge. Challenge grants are often offered to students studying architecture and interior design as well.

EEI Programs for the South Florida Community

The Earth Ethics Institute is a participating member in the Environmental Education Providers of Miami-Dade County and partners with diverse 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 Web site www.earthethicsinstitute.org.

The Florida Center for the Literary Arts

(Wolfson Campus)

Florida Center for the Literary Arts is a cultural and academic initiative that promotes the advancement and appreciation of the literary arts in all forms.

Housed at Wolfson Campus, the Center is a nexus for all the literary arts – from traditional to avant-garde – serving as a focal point for instruction, research, reading and creating. Year-round, the Center offers a lineup of programs for students and the community, including classes, workshops, forums, readings, celebrations and more.

The Center works with established and emerging writers from Florida and elsewhere. Through Center programs, they help Miami Dade College students, pupils in Miami-Dade County Public

Schools and diverse members of the community deepen their understanding of literature and sharpen their creative writing abilities.

Creative Writing Workshops

Creative writing workshops offer writers in our community a chance to share their work with a supportive, yet critical community of writers whose goal is continual development. All workshops are noncredit and open to everyone in the community.

Each spring, the Center's Writer's Institute offers four days of intensive workshops on poetry, fiction, nonfiction, publishing and more. These are complemented by readings and festive gatherings.

Literacy Initiatives

The Center's literacy-based initiatives include One Book, One Community; One Picture Book, One Community; First Readers; El Club de Lectores; and The Big Read, a nation-wide reading initiative funded by the National Endowment for the Arts in partnership with Arts Midwest and the Institute of Museum and Library Services. They encourage an appreciation for books with the goal of fostering dialogue in the community and enhancing the reading skills of children and adults.

Miami Book Fair International

Held each year in November for more than 25 years, Miami Book Fair International is the largest and finest event of its kind in the U.S. In addition to readings by more than 300 authors from all over the world and the sale of thousands of books in many languages, the Fair offers book-centered fun for children, the chance to explore the culture of many nations at the International Village, panel discussions and creative writing classes in English and Spanish.

Prometeo Theatre

The close relationship between theater and literature prompted the Center to embrace Prometeo, a Spanish-language theater program founded more than 35 years ago at Miami Dade College's Wolfson Campus with the mission of preserving the Spanish language and Hispanic

culture through the theater. Courses and workshops in acting, voice and speech, movement, acting for the camera, playwriting, singing and stagecraft are offered throughout the year. Prometeo also offers the two-year Professional Training Certificate in Theatre Arts, as well as classes for children and teens.

The Honors College

The Honors College is a college-wide community of student and faculty scholars who collaborate in an intellectually stimulating, enriching, challenging and supportive environment. Housed at Wolfson, North, Kendall and InterAmerican campuses, The Honors College provides an academically rich curriculum with special scholarship, and social and service opportunities. The Honors College encourages critical thinking and intellectual curiosity in an array of programs and disciplines. The InterAmerican Campus offers the Honors Dual Language Program which mirrors the rigorous curriculum of the other campuses. This program offers courses in English or Spanish for students who demonstrate mastery of both languages. Students study in small class settings and work closely with honors faculty. The Honors College expects its students to take advantage of the many enrichment opportunities provided. These include cultural and community activities, leadership development programs, internships, national tours, study abroad programs and colloquia.

Students receive personalized guidance in preparing applications for competitive scholarship awards and transfer admission to prestigious private and public universities. In addition, the Honors College offers exemplary models of learning, an impressive speakers series, discipline-specific honors seminars and student forums. Components of the program include:

1. Merit scholarships for superior students, including the Honors College Fellows award for students who meet The Honors College eligibility criteria.
2. Opportunities to attend an array of cultural events featuring the performing and visual arts.
3. Attendance and participation of students and faculty at the annual meet-

ings 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 Web site for additional information at www.mdc.edu/honorscollege.

Independent Studies

(Kendall Campus)

The Independent Studies Program offers an interdisciplinary academic program including more than 40 college credit courses in a broad array of disciplines. The program includes all general education core courses and a wide variety of distribution and elective classes. This program is particularly well-suited to students wanting flexible schedules, as it requires only a minimal number of campus visits. Courses offered in the Independent Studies Program are ideal for motivated students who want to choose where and when to study; who enjoy working at their own pace; who

have good time management skills; who are unable to attend classes on a routine basis; and who are committed to their academic goals. Faculty dedicated to student success are available day, evening and weekend hours to provide individualized instruction and to extend Miami Dade College's resources beyond the campus. Students respond positively to the flexible, convenient and supportive environment.

Courses are available in the natural sciences, English composition and literature, humanities, history, social science, sociology and psychology. All courses offered mirror traditional classroom style courses in that they are instructor-led, feature specific start and end dates, require textbooks and provide the same levels of academic or professional credit. The program expands course offerings every term; students should consult the current term's class listing for the present schedule. Each course in Independent Studies establishes its own curricular procedures and suggested deadlines for testing and work submittal. In addition, all courses in this academic program include varied learning activities, timely feedback and the opportunity for accelerated completion.

Students should visit the Independent Studies Program web site at www.mdc.edu/kendall/independent for registration and course information.

MEED Program

The MEED Program (Model for Enhanced Employment Development) has served students with disabilities in Miami-Dade County with distinction for over 20 years and has received a congratulatory Proclamation from the Office of the Mayor saluting its success. The Program has also received national recognition as a leader in its field and now serves a model for other student employment training and services programs.

The MEED Program's goal is to open doors to competitive employment opportunities. There are three distinct elements of the Program which include (1) employment assistance [effective résumé development, strategic job searching, defining accommodative needs in the workplace, etc.], (2) employment development [working

with business and industry and agencies throughout the County to expand inclusive employment opportunities], and a new feature of the Program: (3) The MEED Academy which features the MEED Digital Tech Studio and a Professional Studies Institute (featuring workshops and seminars in the study of employability and professional qualities and skills). Students are issued digital equipment and software that enhances accessible learning and work experiences as they participate in internships that provide application of technology and polish professional skills. The length of the Academy Program depends upon the needs of the individual student.

To learn more about the MEED Program, students are invited to call 305-237-3997.

New World School of the Arts

(Wolfson Campus)

New World School of the Arts is a comprehensive college program and full-time high school preparing students for professional careers in dance, music, theater and the visual arts. The program, created by the Florida Legislature in 1984 as a Center of Excellence in the Arts, is an educational partnership of the University of Florida, Miami Dade College and the Miami-Dade County Public Schools. Through its sponsoring institutions, New World School of the Arts awards the Bachelor of Music, Bachelor of Fine Arts degrees and Associate in Arts degrees, as well as high school diplomas. Students are admitted on the basis of talent and commitment as demonstrated through audition or portfolio presentation. The school is located at Wolfson Campus in downtown Miami.

Outreach Program

The College endeavors to provide college credit and non-credit classes to residents of Miami-Dade County who find it more convenient to attend a neighborhood center than to travel to a campus. These courses are fully accredited and follow the same curriculum as on-campus courses. Classes are held in community schools, businesses, municipal agencies and other close-to-home

locations. The smaller classes provide opportunities for increased interaction with instructors. Students who attend outreach classes also find a strong network of support from fellow classmates.

Reserve Officers Training Corps

Miami Dade College, in cooperation with the University of Miami and Florida International University, permits 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, 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. 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 virtual.mdc.edu. Before enrolling in a Virtual College course, a student may view the syllabus, contact the teacher with questions concerning the course, and learn what textbook and other instructional materials are required. MDC offers registration and other services online for Virtual College students.

Weekend College

Weekend College is designed for students unable to attend weekday or evening classes, but it is not restricted to these individuals; students wishing to complement their schedules with additional courses are encouraged to enroll. Weekend College offers a selection of core, distribution and elective credit courses to satisfy degree and certification program requirements.

Wellness Center

(North, Kendall and Wolfson Campuses)

The College has several wellness centers, located on the North, Kendall and Wolfson campuses. These programs are designed to meet the wellness needs of faculty/staff, students and the community. The centers have the capability to perform a complete health/fitness assessment, including sub-maximal cardiovascular, blood pressure measurement, body composition, muscular strength and flexibility. Each center also has a variety of cardiovascular and strength training equipment as well as an array of free-weights.

W.L. Philbrick School of Funeral Service Education

(North Campus)

The W.L. Philbrick School of Funeral Service Education 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. More than 100 bodies are embalmed and cosmetically prepared in the campus laboratories each academic year. An 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. The school is accredited by the American Board of Funeral Service Education Inc. (ABFSE), 3432 Ashland Ave., Suite U, St. Joseph, MO 64506 (phone: 816-233-3747). The ABFSE requires that all students earning degrees from ABFSE-accredited programs pass the National Board Exam of the International Conference of Funeral Service Examining Boards Inc. Passing both sections (arts and sciences) of the National Board Exam with a grade of 75 or higher is a requirement for graduation in the W.L. Philbrick School of Funeral Service Education. (The annual passage rate of first-time takers for the most recent three-year period for all ABFSE-accredited funeral service education programs is posted at www.abfse.org.) Funeral service graduates from MDC are qualified to practice in most

states provided they have met the state of choice requirements for licensure. For further information on this challenging field of study, students may contact the W.L. Philbrick School of Funeral Service Education at 305-237-1245 or via e-mail at 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 leading institutions of the College Consortium for International Studies (CCIS). As a CCIS sponsoring member institution, the College is responsible for semester and summer programs in France and Costa Rica. A cooperative consortium arrangement affords reciprocal access for MDC students to take college credit programs in additional countries sponsored by other member institutions. The CCIS is a nationwide partnership of more than 160 membership colleges and universities, including two and four year, public and private. This partnership offers American undergraduates a choice of more than 70 study-abroad programs in more than 30 countries. CCIS semester programs are available in the following countries, many of which also offer summer programs:

1. Argentina (Buenos Aires)
2. Australia
3. Bulgaria
4. Canada
5. China (Nanjing and Shanghai)
6. Costa Rica (Santa Ana and San José)
7. Czech Republic (Prague)
8. Denmark
9. Dominican Republic
10. Ecuador
11. England (London and Lancashire)
12. France (Aix-en-Provence, Nice, Annecy, Chambéry, Angers, Paris)
13. Germany (Berlin, Heidelberg)
14. Ghana
15. Greece
16. India
17. Ireland (Maynooth, Limerick, Galway)
18. Italy
19. Japan

20. Mexico
21. Morocco
22. New Zealand
23. Portugal
24. Russia
25. Scotland
26. Spain
27. Switzerland

Miami Dade College also offers faculty-led short-term study abroad programs, such as European Architecture, Economic Effects of Scientific Discoveries, Medical Immersion program in the Dominican Republic, and Study Abroad in Seville. Participation is not automatic. Students must apply through the MDC Office of International Education located at the Wolfson Campus. Most programs require a minimum 2.5 GPA. No previous study or knowledge of a foreign language is required for most programs. If a student is eligible for financial aid, this aid may be used for study abroad. After acceptance to a program, the restricted registration for courses abroad is completed with the assistance and authorization of the Office of International Education (Campus Code 285). Most programs offer a "homestay" option (living with a local family or individual) which accelerates 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.

For more information about the study abroad programs, please visit www.mdc.edu/mdcglobal

Time-Saving Degree Opportunities

Miami Dade College encourages students to accelerate their education by providing time-saving programs to shorten the time necessary to complete an Associate degree. The articulated acceleration mechanism includes dual enrollment, early admission, advanced placement, credit by examination and the International Baccalaureate Program among others. These accelerated options can save a student valuable time and money because they provide an alternative way of earning credit at MDC and the opportunity to earn a degree more quickly.

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 credit and credit toward a high school diploma. The college credit may be applied toward a postsecondary

diploma, or a certificate or degree at a Florida public institution. The Dual Enrollment program is an opportunity to take challenging courses and accelerate education opportunities. Students who successfully complete dual enrollment courses will save time in obtaining their college degree, and save money as well, because these students are exempt from the payment of registration, tuition and laboratory fees.

To enroll in courses through the dual enrollment program, students must demonstrate readiness for college-level coursework. Eligibility criteria take both GPA and passing the appropriate sections of the college placement test into consideration. The high school must grant permission for the student to enroll in these courses, thereby agreeing to accept these college courses to meet high school graduation requirements.

Early admission is a form of dual enrollment through which eligible high school students enroll at the college on a full-time basis. The courses these students take are creditable toward a high school diploma and the certificate or associate degree. Students selected for early admission or dual enrollment may begin their studies in any term, provided that they complete the regular admission, advisement, and registration procedures and receive permission from their high school.



Alternative Ways of Earning Credit Through Standardized Examinations

- Advanced Placement (AP)
- Cambridge Advanced International Certificate of Education Examination (AICE)
- Caribbean Advanced Proficiency Examination (CAPE)
- Certified Professional Secretary Examination (CPS)
- College-Level Examination Program (CLEP)
- DANTES Subject Standardized Tests (DSSTs)
- Excelsior College Examinations (formerly Regents or ACTPEP)
- International Baccalaureate (IB)

Miami Dade College awards college credit for standardized examinations that document the required knowledge and competencies for one or more subject areas. Evaluations of examinations are made after the student has been admitted to the College. Official score reports must be sent directly from the testing agencies to the College's Transcript 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, visit Florida's free online advising Web site at www.facts.org (by clicking on Counselors & Educators, then on Advising Manuals, then on AAC Credit-by-Exam Equivalencies). Questions may also be answered from MDC's Web site at www.mdc.edu/testing_information (by clicking on Other Testing Information, then Acceleration Options Standardized Examinations).

Institutional Credit-by-Examination

Students who have been admitted to the College may receive credit for courses through departmental exami-

nations. Applications for this type of credit are available from the Registrar's Office and must be approved first by the appropriate academic department. Subsequently, the registration must be completed at the Registrar's Office and fees need to be paid by each term's published deadline. Credits for departmental examination are not included in any computation of credit load for full-time or part-time student status. Institutional credit-by-examination will become a part of the student's permanent record at the conclusion of the term in which it is awarded. Grades of A, B, C or D will be assigned for college credits earned by examination and will be computed in the student's GPA. A nonrefundable fee of \$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 International Association of Administrative Professionals (IAAP). The credit will appear on the student's permanent record as earned credit only, without any indication of grades.

Military Service Schools, Defense Activity for Non-Traditional Education Support (DANTES) and United States Armed Forces Institute (USAFI)

Miami Dade College will grant credit toward an Associate degree for properly validated military service training. This includes military service schools, the United States Armed Forces Institute (USAFI) and Defense Activity for Non-Traditional Education Support (DANTES) end-of-course examinations, as well as acceptable College Level Examination Program (CLEP) test scores. The recommendation of the American Council on Education, a guide to the evaluation of education experiences in the armed services, is used in evaluating military service school training. Active duty military personnel must submit DD Form 295 and the Miami Dade military service school training record form. USAFI and DANTES college-level credit courses taken by correspondence, or by extension through other accredited colleges, are accepted under regular transfer credit provisions. Official Reports of Educational Achievement must be mailed directly to the College Admissions Department from each approved organization.

College credit earned through military service schools, USAFI, or DANTES college level end of course tests, will appear on the student's permanent record as earned credit only, without any indication of quality points. Transfer credit evaluations of this work are made after the student has been admitted to the College. Veterans must submit a true copy of the service personnel's separation papers (DD Form 214) and the Miami Dade military service school training record form to the Admissions Office.

Veterans who have earned credit through USAFI or DANTES should request transcripts from Educational Testing Service. Prospective students may contact: Representative for DANTES, P.O. Box 6604, Princeton, New Jersey 08541.

Special Information

Computer Services

Miami Dade College provides students and faculty with a state-of-the-art computing and telecommunication infrastructure. The College's campuses and centers are interconnected by a dual and diverse high-speed gigabit fiber network backbone supporting voice, video and data. The network currently has 31,000 ports, and provides 280 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 requests, term grades and credit card payments. Furthermore, the services offer up-to-the-minute course listings and academic program information. Classes are available in online and distributed modes to provide students with a variety of ways to complete their course of study. Extensive computing facilities at each College location provide support for Collegewide technology-enabled curriculums.

The College's Data Center is located in Jack Kassewitz Hall at Kendall Campus. It hosts 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)

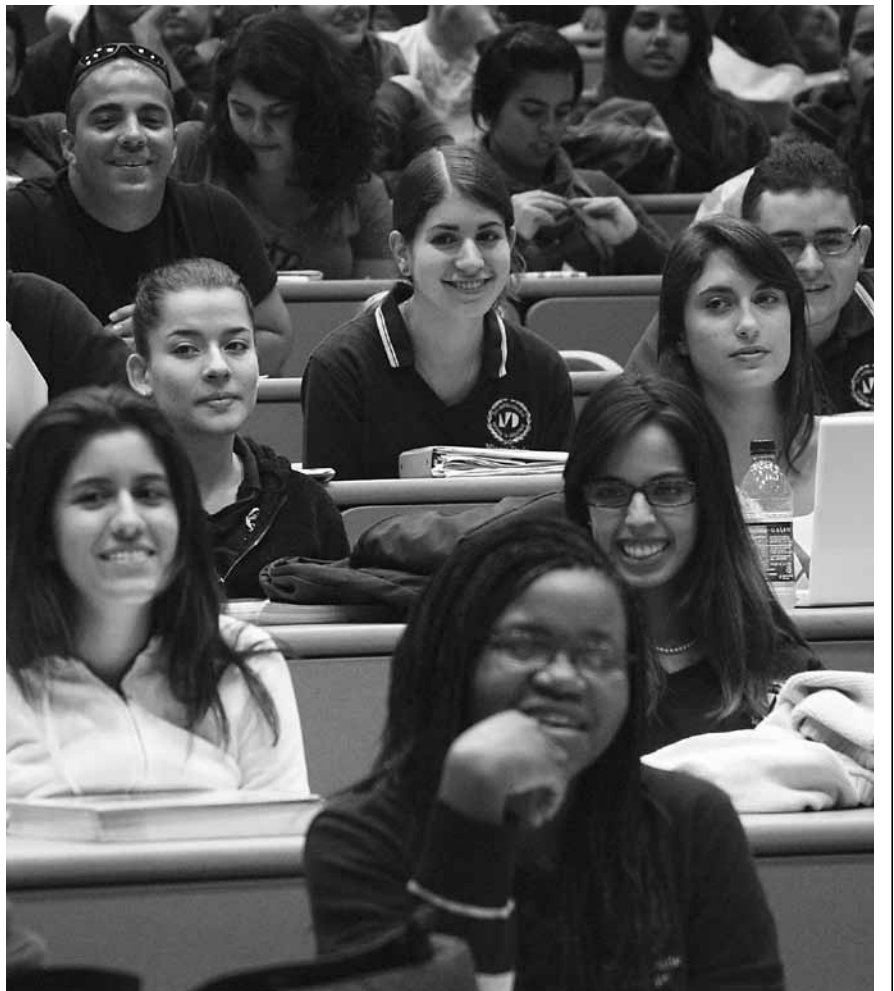
The office of Institutional Advancement has responsibility in three major divisions in carrying out its

mission as the development organization for Miami Dade College: District Development Office, the Office of Alumni Relations and the Miami Dade College Foundation Inc.

Resource Development Department

The Department of Resource Development identifies external sources of funding to support the programs and priorities of the College. The department works with College faculty and staff to develop, prepare, and submit innovative grant proposals to public and private funding sources designed to promote

excellence in teaching, learning, and institutional effectiveness. Resources obtained through grant awards help fund new and existing programs, special projects, student services, curriculum development, professional staff development, the construction of new facilities, exchange programs, research, new equipment and student scholarships. The Department of Resource Development also encourages public-private partnerships and collaboration with other educational institutions. In addition to the pre-award portion of the grants process at the College, the department is also in charge of the College Processing Number (CPN) System which allows MDC to track proposals submitted to external sources.



Miami Dade College Office of Alumni Relations

The Alumni Association's mission is to assist current and past students of MDC through mentorship programs, job networking, fundraising and other means to create a smooth transition from student to member of the workforce. The association maintains the official Web site www.SuccessfulAlumni.com. This site offers a variety of services to all alumni and attendees of the College. More than 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: Sign up at www.SuccessfulAlumni.com to receive these benefits, and to be considered for the alumni advertising campaign.

Miami Dade College Foundation Inc.

The Miami Dade College Foundation Inc. was chartered by the state of Florida in 1965 as a nonprofit 501(c)3 direct-support organization of Miami Dade College. Governed and guided by an independent Board of Directors of more than a dozen community leaders, the

MDC college president, a rotating MDC campus president, and a representative of the MDC Board of Trustees, the Foundation is vital to the College's ability to provide high-quality, accessible and affordable educational services to our community.

The Foundation ensures the mission of Miami Dade College is accomplished by promoting interest in the College through three primary objectives:

- Continue to build a permanent endowment to support Miami Dade College;
- Maintain an open-door policy ensuring that no student is denied access to an education for financial reasons;
- Develop broad-based constituent support at the local, state, national and international level to enhance and continue strengthening Miami Dade College as the largest college in the nation.

At a time when legislative support for higher education continues to decline, the Foundation's efforts to identify alternative funding sources are vital to the future of MDC. The Foundation facilitates a means through which 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 Foundation are tax-deductible under Section 170 of the Internal Revenue Code and are administered according to gift agreements and donor intentions. Numerous donations from many generous sources, including MDC faculty, staff and administrators have contributed to the growth of the Foundation's endowment which is

approximately \$80 million. The endowment is comprised of more than 700 scholarship and program support donor accounts for the College.

Endowed Teaching Chairs

The Miami Dade College Endowed Teaching Chair program is the first of its kind at a community college dedicated solely to recognize excellence in teaching. Inaugurated in 1992, the Endowed Teaching Chair awards each recipient \$22,500 over a three-year period, allowing faculty to explore new teaching methods, develop new projects, purchase specialized or innovative teaching materials, enhance their technological expertise and further their own knowledge in order to benefit their students.

The Endowed Teaching Chairs represent our institution's highest recognition of our faculty. Recipients of this award, past and present, have demonstrated to their peers the absolute definition of excellence in every aspect of teaching. Further, they have made student learning their top priority and, in doing so, have fulfilled the mission of Miami Dade College.

The Endowed Teaching Chairs have been made possible through the generous support of individuals, corporations and organizations committed to the "art of teaching" and are managed by the Miami Dade College Foundation. The Endowed Teaching Chair program began in 1992 and has awarded more than 238 awards. A gift of an Endowed Teaching Chair is among the most important contributions that can be made to the College and the thousands who are educated at MDC.

Call us Essential ... Call us the College

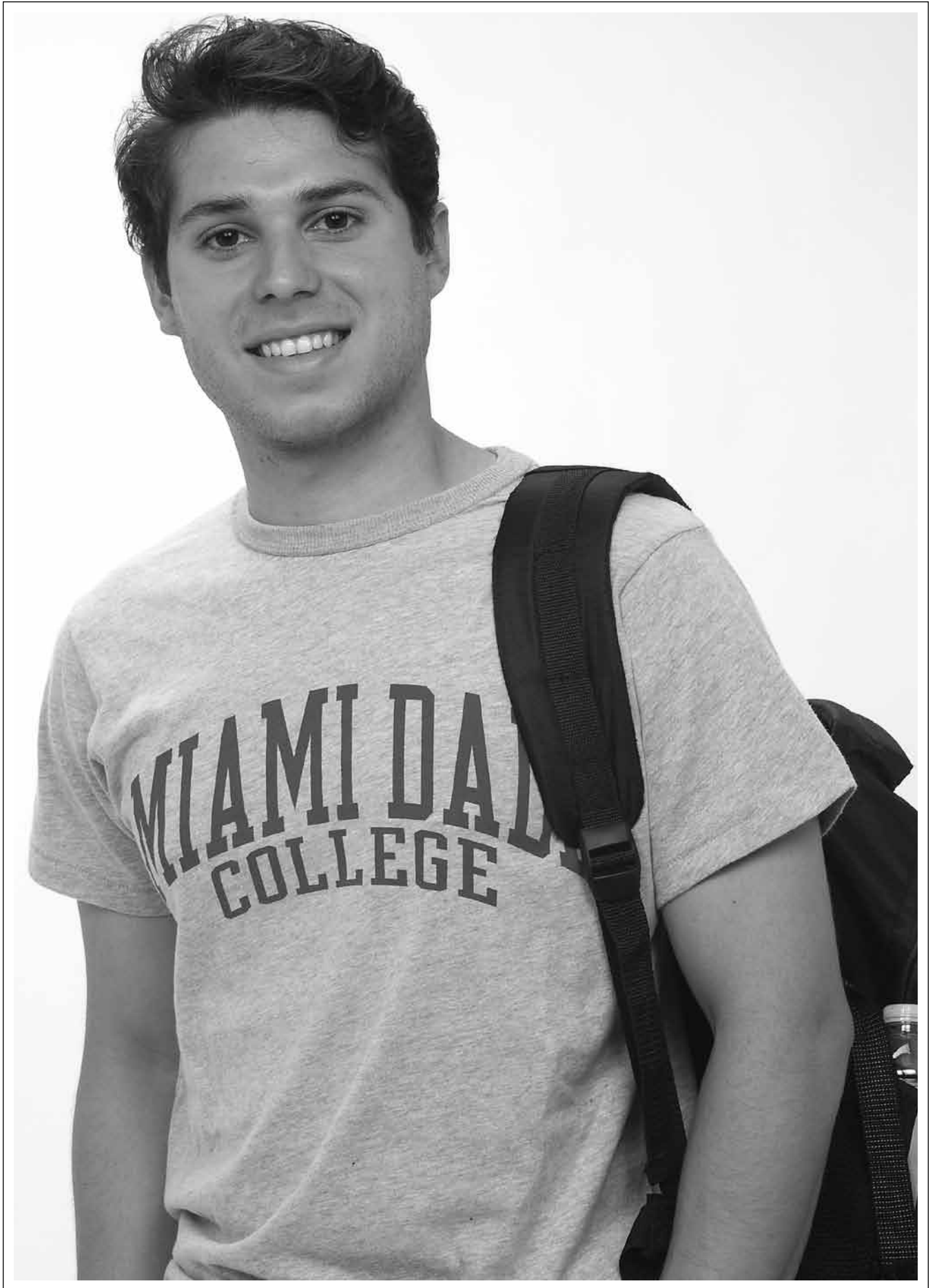
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Course Information

Florida's Statewide Course Numbering System

Courses in this catalog are identified by prefixes and numbers that were assigned by Florida's Statewide Course Numbering System (SCNS). This numbering system is used by all public postsecondary institutions in Florida and 28 participating non-public institutions. The major purpose of this system is to facilitate the transfer of courses between participating institutions. Students and administrators can use the online Statewide Course Numbering System to obtain course descriptions and specific information about course transfer between participating Florida institutions. This information is at the SCNS website at <http://scns.fldoe.org>.

Each participating institution controls the title, credit, and content of its own courses and recommends the first digit of the course number to indicate the level at which students normally take the course. Course prefixes and the last three digits of the course numbers are assigned by members of faculty discipline committees appointed for that purpose by the Florida Department of Education in Tallahassee. Individuals nominated to serve on these committees are selected to maintain a representative balance as to type of institution and discipline field or specialization.

The course prefix and each digit in the course number have a meaning in the 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 "statewide course profiles."

EXAMPLE OF COURSE IDENTIFIER

Prefix	Level Code (first digit)	Century Digit (second digit)	Decade Digit (third digit)	Unit Digit (fourth digit)	Lab Code
ENC	1	1	0	1	
English Composition	Lower (Freshman) Level at this institution	Freshman Composition	Freshman Composition Skills	Freshman Composition Skills I	No laboratory component in this course

General Rule for Course Equivalencies

Equivalent courses at different institutions are identified by the same prefixes and same last three digits of the course number and are guaranteed to be transferable between participating institutions that offer the course, with a few exceptions. (Exceptions are listed below.)

For example, a freshman composition skills course is offered by 56 different postsecondary institutions. Each institution uses "ENC_101" to identify its freshman composition skills course. The level code is the first digit and represents the year in which students normally take the course at a specific institution. In the SCNS taxonomy, "ENC" means "English Composition," the century digit "1" represents "Freshman Composition," the decade digit "0" represents "Freshman Composition Skills," and the unit digit "1" represents "Freshman Composition Skills I."

In the sciences and certain other areas, a "C" or "L" after the course num-

ber is known as a lab indicator. The "C" represents a combined lecture and laboratory course that meets in the same place at the same time. The "L" represents a laboratory course or the laboratory part of a course, 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 participating institution to another is guaranteed in cases where the course to be transferred is equivalent to one offered by the receiving institution. Equivalencies are established by the same prefix and last three digits and comparable faculty credentials at both institutions. For example, ENC 1101 is offered at a community college. The same course is offered at a state university as ENC 2101. A student who has successfully completed ENC 1101 at



the community college is guaranteed to receive transfer credit for ENC 2101 at the state university if the student transfers. The student cannot be required to take ENC 2101 again since ENC 1101 is equivalent to ENC 2101. Transfer credit must be awarded for successfully completed equivalent courses and used by the receiving institution to determine satisfaction of requirements by transfer students on the same basis as credit awarded to the native students. It is the prerogative of the receiving institution, however, to offer transfer credit for courses successfully completed that have not been designated as equivalent. NOTE: Credit generated at institutions on the quarter-term system may not transfer the equivalent number of credits to institutions on semester-term systems. For example, 4.0 quarter hours often transfers as 2.67 semester hours.

The Course Prefix

The course prefix is a three-letter designator for a major division of an academic discipline, subject matter area, or 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 nonpublic postsecondary educational institutions to be academically equivalent to courses offered at the receiving institution, including equivalency of faculty credentials, regardless of the public or nonpublic control of the previous institution. The Department of Education shall ensure that credits to be accepted by a receiving institution are generated in courses for which the faculty possess credentials that are comparable to those required by the accrediting association of the receiving institution. The award of credit may be limited to courses that are entered in the statewide course numbering system. Credits awarded pursuant to this subsection shall satisfy institutional requirements on the same basis as credits awarded to native students.

Exceptions to the General Rule for Equivalency

Since the initial implementation of the SCNS, specific disciplines or types of courses have been excepted from the guarantee of transfer for equivalent courses. These include varying topics courses that must be evaluated individually, or applied courses in which the student must be evaluated for mastery

of skill and technique. The following courses are exceptions to the general rule for course equivalencies and may not transfer. Transferability is at the discretion of the receiving institution.

- A. Courses not offered by the receiving institution.
- B. For courses at non-regionally accredited institutions, courses offered prior to the established transfer date of the course in question.
- C. Courses in the 900-999 series are not automatically transferable, and must be evaluated individually. These include such courses as Special Topics, Internships, Apprenticeships, Practica, Study Abroad, Thesis and Dissertations.
- D. College preparatory and vocational preparatory courses.
- E. Graduate courses.
- F. Internships, apprenticeships, practica, clinical experiences and study abroad courses with numbers other than those ranging from 900-999.
- G. Applied courses in the performing arts (Art, Dance, Interior Design, Music, and Theatre) and skills courses in Criminal Justice (academy certificate courses) are not guaranteed as transferable. These courses need evidence of achievement (i.e., portfolio, audition, interview, etc.).

Courses at Nonregionally Accredited Institutions

The Statewide Course Numbering System makes available on its home page (<http://scns.fldoe.org>) a report entitled "Courses at Nonregionally Accredited Institutions" that contains a comprehensive listing of all nonpublic institution courses in the SCNS inventory, as well as each course's transfer level and transfer effective date. This report is updated monthly.

Questions about the Statewide Course Numbering System and appeals regarding course credit transfer decisions should be directed to the MDC College-wide Registrar or the Florida Department of Education, Office of Articulation, 1401 Turlington Building, Tallahassee, Florida 32399-0400. Special reports and technical information may be requested by calling the Statewide Course Numbering System office at (850) 245-0427 or via the internet at <http://scns.fldoe.org>.



Miami Dade College Course Offerings and Cross References

Miami Dade College course offerings and their descriptions are grouped under the applicable statewide discipline, in alphabetical order according to discipline title, not under the department or division of the college through which they are offered. For instance: FIN 2100, Personal Finance, is listed under Finance, the statewide discipline and not under a business, economics, or management department. Dance courses, DAA, are listed under Dance, not under Physical Education. Within the specific disciplines, courses are listed alphabetically by prefix, then numeri-

cally within that prefix. Not all courses are offered in all terms or at all campuses. For current offerings, consult the listing of credit courses published each term prior to registration period on all campuses. The number of contact hours per week following each course description are for 16-week terms. More contact hours are required per week for the six and 12-week terms. The cross references which follows will aid you in locating courses by prefix or discipline.

Prefix to Prefix Title to Statewide Discipline

ACG	Accounting - General	Accounting	124
ACO	Accounting Occupational/Technology	Accounting	236 *
ACR	HVACR: Heating/Ventilation/AC/Refrigeration	HVACR	239 *
AFH	African History	History	187
AFR	Air Force ROTC (Aerospace Studies)	Military Science	200
AMH	American History	History	187
AML	American Literature	English Language and Literature	170
AMS	American Studies	American/Afro-American Studies	130
ANT	Anthropology	Anthropology	130
ARC	Architecture	Architecture	131
ARH	Art History	Art	132
ART	Art	Art	132
ARV	Architectural/Drafting Technology	Architecture	241 *
ASC	Aviation Science	Aeronautical Science	125
ASL	American Sign Language	American Sign Language	130
AST	Astronomy	Physics	217
ATE	Animal Science:Technology	Agriculture	127
ATF	Aviation Technology Flight	Aeronautical Science	125
ATT	Aviation Technology Theory	Aeronautical Science	126
AVM	Aviation Management	Aeronautical Science	126
BAN	Commercial Banking (AIB)	Banking	134, 242 *
BCA	Building Construction Apprenticeships	Building Construction Apprenticeships	236*, 237 *
BCH	Biochemistry	Biochemistry	136
BCN	Building Construction	Building Construction	138
BCT	Building Construction	Building Construction	139
BCV	Building Construction	Building Construction	240*, 242 *
BOT	Botany	Biological Science	136
BRC	Banking	Banking	135, 242 *
BSC	Biological Sciences	Biological Science	136
BUL	Business Law	Business Law	139, 242 *
CAP	Computer Applications	Computer Sciences	147
CCJ	Criminology & Criminal Justice	Criminal Justice	147
CET	Computer Engineering Technology	Electrical/Electronic Technology	141, 165
CGS	Computer General Studies	Computer Science	141, 242 *
CGV	Computer Concepts and Occupational Technology	Computer Science	243 *
CHI	Chinese Language	Asian Languages & Literature	141
CHM	Chemistry	Chemistry	139

*Vocational Certificate Courses (see pages 236-259)

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CIS	Computer Information Systems	Computer Science/Engineering 143
CJC	Criminology & Criminal Justice	Criminal Justice 148, 244 *
CJE	Criminal Justice Development	Criminal Justice 148
CJK	Criminal Justice & Related Technologies	Criminal Justice 244 *
CJL	Criminal Justice Development	Criminal Justice 150
CJT	Criminal Justice Technology	Criminal Justice 150, 247 *
CLP	Clinical Psychology	Psychology 219
COM	Communications / Vocational	Communications 242 *
COP	Computer Programming	Computer Science 143
CPO	Comparative Politics	Political Science 219
CRW	Creative Writing	English Language & Literature 170
CTE	Home Economics: Clothing & Textiles	Fashion 174
CTS	Computer Technology & Skills	Computer Science 144, 243 *
DAA	Dance Activities	Dance 151
DAN	Dance	Dance 153
DEH	Dental Hygiene	Dental Hygiene 153
DEP	Developmental Psychology	Psychology 220
DES	Dental Support	Dental Support 154
DIG	Digital Media	Digital 146
EAP	English for Academic Purposes	ESL for Academic Purposes 154
ECO	Economics	Economics 156
EDF	Education: Foundations & Policy Studies	Education: Foundations & Policy Studies 157
EDG	Education: General	Education Systems 158
EEC	Education: Early Childhood	Education Systems 159
EEL	Engineering: Electrical	Engineering II 164
EET	Electronic Engineering Technology	Electrical/Electronic Technology 166
EEV	Electrical/Electronic Vocational	Electrical/Electronic Technology 247 *
EEX	Education: Exceptional-Child-Core Competencies	Education, Exceptional Child 160
EGN	Engineering General	Engineering General Support 164
EGS	Engineering: General/Engineering: Support	Engineering: General Support 164
EME	Education: Technology and Media	Education Systems 161
EMS	Emergency Medical Services	Emergency Medical Services 163
ENC	English Composition	English Language & Literature 170
	English College Preparatory	English College Preparatory 171
ENG	English: General	English Language & Literature 171
ENL	English Literature	English Language & Literature 171
EPI	Educator Preparation Institutes	Educator Preparation Institutes 260
ESC	Earth Science	Geology 181
EST	Electronic Specialty Technology	Electrical/Electronic Technology 167
ETC	Engineering Tech: Civil	Engineering Technologies 165
ETD	Engineering Tech: Drafting	Engineering Technologies 165
ETG	Engineering Tech: General	Engineering Technologies 169
ETI	Engineering Tech: Industrial	Engineering Technologies 168
ETM	Engineering Tech: Mechanical	Engineering Technologies 169
EUH	European History	History 187
EVR	Occupational Safety & Health Tech.	Environmental Studies 172
EVS	Environmental Science	Engineering Technologies 169
FFP	Fire Fighting and Protection	Fire Science 177, 249 *
FIL	Film	Mass Communication 174
FIN	Finance	Finance 177
FOS	Food Service	Nutrition 178
FOT	Foreign & Biblical Language in Translation	Foreign Literature 178

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FRE	French Language	French Language & Literature 179
FRW	French Literature (Writing)	French Language & Literature 179
FSE	Funeral Services	Funeral Services 179
FSS	Food Service Systems	Nutrition 177
GEA	Geography-Regional Areas	Geography 181
GEB	General Business	General Business 180, 249 *
GEO	Geography-Systematic	Geography 181
GIS	Geography: Information Science	Geography 181
GER	German Language	German & Germanic Language & Literature 182
GLY	Geology	Geology 181
GRA	Graphic Arts	Graphic Arts 182, 249 *
GRV	Graphics	Graphics Arts 250 *
HAI	Haitian Creole Language	Haitian Language & Literature 184
HBR	Modern Hebrew Language	Hebrew Language & Literature 187
HCW	Haitian Creole Language	Haitian Language & Literature 185
HFT	Hospitality Management	Hospitality Management 188, 233
HIM	Health Information Management	Health Information Management 185, 250 *
HLP	Health, Leisure, Physical Education	Health, Leisure, Physical Education 214
HMV	Travel Agency Operations	Transportation 258 *
HOS	Horticulture Sciences	Ornamental/Horticultural Science 129
HSC	Health Sciences	Health Sciences/Resources 186, 252 *
HUM	Humanities	Humanities 190
HUN	Human Nutrition	Nutrition 209
HUS	Human Services	Human Services 189
IDH	Interdisciplinary Honors	Interdisciplinary Studies 190
IDS	Interdisciplinary Sciences	Interdisciplinary Sciences 191
IND	Interior Design	Interior Design 191
INP	Industrial & Applied Psychology	Psychology 220
INR	International Relations	Political Science 219
INT	Education: American Sign Language & I	Education, Exceptional Child 158
IPM	Horticulture Sciences	Ornamental/Horticultural Science 129
ISC	Interdisciplinary Sciences	Natural Science: Interdisciplinary 191
ISS	Interdisciplinary Social Sciences	Interdisciplinary Social Science.. . . . 219, 225
ITA	Italian Language	Italian Language & Literature 192
JOU	Journalism	Mass Communications 192
JPN	Japanese Language	Japanese Language and Literature 192
JST	Judaic Studies	Jewish/Judaic Studies 192
LAH	Latin American History	History 187
LDE	Landscape Design	Ornamental/Horticultural Science 129
LIN	Linguistics	Linguistics 193
LIS	Library Science	Library Science 192
LIT	Literature	English Language & Literature 171
MAC	Mathematics: Calculus & Pre-Calculus	Mathematics 196
MAD	Mathematics: Discrete	Mathematics 196
MAE	Mathematics Education	Mathematics Educations 1162
MAN	Management	Management 193, 252 *
MAP	Mathematics Applied	Mathematics 196
MAR	Marketing	Marketing 195
MAS	Mathematics: Algebraic Structures	Mathematics 196
MAT	Mathematics	Mathematics 197
	College Preparatory	College Preparatory 197

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MCB	Microbiology	Biological Science 138
MEA	Medical Assisting Technology	Medical Assisting 254 *
MET	Meteorology	Meteorology 199
MGF	Mathematics: General & Finite	Mathematics 197
MHF	Mathematics	Mathematics - History & Foundations 162
MKA	Marketing Applications	Marketing. 195, 242 *
MLT	Medical Laboratory Technology	Medical Laboratory Technology 197, 255 *
MLV	Medical Laboratory Sciences/Phlebotomy	Medical Laboratory Technology 255 *
MMC	Mass Media Communication.	Mass Communication 196
MNA	Management Applied	Management 194, 252 *
MSL	Military Science	Military Science. 200
MSS	Massage Therapy	Massage Therapy 253 *
MTB	Mathematics - Technical and Business	Mathematics 197, 253 *
MTG	Mathematics:Topology & Geometry	Mathematics 197
MUC	Music: Composition	Music-General 201
MUE	Music: Education.	Music-General 201
MUH	Music: History/Musicology	Music-General 201
MUL	Music: Literature	Music-General 201
MUM	Music: Music Commercial.	Music-General 202
MUN	Music: Musical Ensembles.	Music-General 203
MUO	Music: Opera/Musical Theatre	Music-General 204
MUS	Music	Music-General 204
MUT	Music:Theory	Music-General 204
MVB	Music:Applied-Brasses	Music-Applied 205
MVJ	Music:Applied-Jazz	Music-Applied 205
MVK	Music:Applied-Keyboards	Music-Applied 205
MVO	Music:Applied-Other Instruments	Music-Applied 205
MVP	Music:Applied-Percussion.	Music-Applied 205
MVS	Applied Music: Strings	Music-Applied 205
MVV	Music: Applied-Voice.	Music-Applied 205
MVW	Music: Applied-Woodwinds.	Music-Applied 205
NMT	Nuclear Medicine Technology	Medical Imaging & Radiation Therapy 206
NUR	Nursing	Nursing 207
OCA	Office Computer Applications	Office Computer Applications. 255 *
OCB	Oceanography.	Oceanography 138
OCE	Oceanography.	Oceanography 209
OCP	Oceanography.	Oceanography 210
OPT	Ophthalmic Technology	Ophthalmic Technology/Vision Care 234
ORH	Ornamental Horticulture	Ornamental/Horticultural Science 129
OST	Office Systems Technology.	Office Systems Technology 210
OTA	Office Technology Application	Office Technology Application 255 *
PAD	Public Administration	Public Administration 220
PAS	Physician Assistant	Physician Assistant. 216
PCB	Process Biology.	Biological Sciences 138
PCO	Psychology for Counseling.	Psychology. 220
PEO	Physical Education Acts (General)-Object Centered, Land	Physical Education. 214
PEP	Physical Education Acts (General)-Performance Centered.	Physical Education. 214
PET	Physical Education Theory	Physical Education. 215
PGY	Photography	Photography 214, 256 *
PHI	Philosophy	Philosophy. 213
PHM	Philosophy of Man & Society	Philosophy. 214
PHT	Physical Therapy	Physical Therapy 215

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PHY	Physics	Physics 217
PHZ	Physics	Physics 218
PLA	Paralegal/Legal Assisting/Legal Adm.	Legal Assisting 212
PMT	Precision Metals Technology	Precision Metals Technology 240 *
POR	Portuguese Language	Portuguese Language & Literature 219
POS	Political Science	Political Science 219
POT	Political Theory	Political Science 219
PRN	Practical Nursing	Practical Nursing 256 *
PSB	Psychobiology	Psychology 220
PSC	Physical Sciences	Physics 218
PSY	Psychology	Psychology 220
PTN	Pharmacy Technician	Health Care Providers 256 *
PUR	Public Relations	Mass Communication 196
QMB	Quantitative Methods in Business	Quantitative Methods in Business 220
RAT	Radiation Therapy	Radiologic & Nuclear Medicine/Technology 221
REA	Reading	Reading 222
	Reading College Preparatory	Reading College Preparatory 222
RED	Reading Education	Language Arts & English Education 223
REE	Real Estate	Real Estate 223, 256 *
REL	Religion	Religion 223
RET	Respiratory Therapy	Respiratory Therapy 224
RMI	Risk Management & Insurance	Risk Management & Insurance 225, 257 *
RTE	Radiologic Technology	Radiologic & Nuclear Medical Technology 221
RTT	Radio & Television Technology	Radio/Television Technology 248 *
RTV	Radio-Television	Mass Communication 175
RUS	Russian Language	Slavic Language & Literature 225
SBM	General Business	Small Business Mgmt: Occupational/Tech. 195, 242 *
SCE	Science Education	Science Education 162
SLS	Student Life Skills	Student Life Skills 229, 257 *
SON	Sonography	Medical Imaging & Radiation Therapy 225
SOP	Social Psychology	Psychology 220
SOW	Social Work	Social Work 225
SPA	Speech Pathology & Audiology	Speech Pathology & Audiology 130
SPC	Speech Communication	Speech Communication 228
SPN	Spanish Language	Spanish Language & Literature 227
SPT	Spanish Literature in Translation	Spanish Language & Literature 228
SPW	Spanish Literature (Writings)	Spanish Language & Literature 228
STA	Statistics	Statistics 228
SUR	Surveying & Related Areas	Surveying & Mapping 229, 258 *
SYG	Sociology, General	Sociology 225
TAX	Taxation	Accounting 125
TDR	Engineering Technology: General	Engineering Technology: General 247 *
THE	Theatre Studies & General Resources	Theatre Arts 230
TPA	Theatre Production & Administration	Theatre Arts 230
TPP	Theatre Performance & Performance Training	Theatre Arts 232
TRA	Transportation and Logistics	Marketing/Transportation 195, 258 *
TSL	Teaching English as a Second Language	ESL/Teaching ESL 161, 229
VIC	Visual Communication	Mass Communication 176
VPI	Vocational Preparation	Vocational Preparatory Instruction 259 *
WOH	World History	History 188
ZOO	Zoology	Biological Science 138

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 College. These courses are applicable to the Baccalaureate, Associate in Arts, Associate in Science, Associate in Applied Science degree programs and/or certificate programs. They are listed in alphabetical order by title according to the State Course Numbering System directory of taxonomies and are subject to change. Not all courses are offered each term or at each campus. Check the registration handbook of the campus you are attending, or plan to attend, prior to registration each term.

Accounting

ACG1949

Co-op Work

Experience 1: ACG 3 credits

This is a course designed to provide training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employee. Prerequisite: Co-op Department approval. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Cooperative Education Office to obtain registration approval. (3 hr. lecture)

ACG2001

Principles of Accounting 1 3 credits

An introduction to the basic principles of financial accounting with emphasis on basic accounting procedures such as the recording of transactions and the preparation of financial statements. Other topics include inventories, receivables, and cash. ACG 2001 and ACG 2011 can be substituted for ACG 2021. Corequisite: ACG 2001L. (3 hr. lecture)

ACG2001L

Principles of

Accounting 1 Lab

1 credit

Provides the accounting student with support to achieve the objectives of ACG 2001. Corequisite: ACG 2001. Laboratory fee. (2 hr. lab)

ACG2011

Principles of Accounting 2 3 credits

Accounting for owners equity with 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. 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, the course covers current topics in both financial and managerial accounting. It exposes the student to a computerized accounting system. It also familiarizes the student with current accounting literature and includes a review of the preparation and analysis of financial statements. Prerequisites: ACG 2071. (3 hr. lecture)

ACG2071

Managerial Accounting

3 credits

Managerial Accounting focuses on the accounting information needs of the various levels of internal management within an organization. Internal responsibility is directed at three major areas of management responsibility: cost determination, planning and control, and long-term decision-making. Prerequisite: ACG 2011 and ACG 2001 or ACG 2021; corequisite: ACG 2071L. (3 hr. lecture)

ACG2071L

Managerial Accounting Lab

1 credit

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 stock 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-/Co-requisite: 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 groups fiscal policies. This course provides a systematic analysis of the financial and legal ground work for which non-profit administrators, board members, and staff of non-profits 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 & Returns**

3 credits
A practical course on the various tax reports and forms required in an accounting office. Topics include payroll deposits, payroll returns, corporate tax return, annual report, tangible and intangible tax returns, sales taxes, employment forms and licenses. (3 hr. lecture)

Aeronautical Science

ASC1010**Aerospace History**

3 credits
This course is designed to provide the student with an understanding of the significant events, people, places and technologies of aviation that have occurred as it progressed through history. The course begins centuries before man flew when concepts of flight were first being imagined to the first successful hot air balloons and the first heavier than air attempts at flight and continues to the present day with supersonic aircraft and space vehicles from both a civilian and military perspective. (3 hr. lecture)

ASC1210**Aviation Meteorology**

3 credits
This is a core aviation course. The student will be prepared to understand weather and environmental issues in commercial aviation. Topics covered will be atmospheric phenomena relating to aircraft operations, the analysis and use of weather data as presented by the U.S. National Weather Service. Prerequisite: ATT 1100 or equivalent; corequisite: ATT 2110 or equivalent. Special fee. (3 hr. lecture)

ASC1550**Aerodynamics**

3 credits
This is a basic course in aerodynamics. Students will analyze the physics of flight and the application of basic aerodynamics to

both airframe and power plant as preparation for the requirements of commercial aviation. (3 hr. lecture)

ASC1610**Aircraft Engines and Structure Theory**

3 credits
This is a foundation course in aircraft engines and structure. Students will learn the elements of aircraft engines, engine theory, construction, systems, operating procedures, performance diagnosis, and aircraft structures. (3 hr. lecture)

ASC2320**Aviation Laws and Regulations**

3 credits
Insight pertinent to federal governing bodies, and current local, federal and international laws forming the present structure of aviation law. (3 hr. lecture)

ASC2470**Physiology/Psychology of Flight**

3 credits
This is an introductory course in the physiology and psychology of flight. Students will learn aero-medical facts of significance to pilots, including causes, symptoms, prevention and emergency treatment of ailments common to the aviation environment through a basic understanding of a person's normal functioning. Cabin pressurization, communications, decompression sickness, hyperventilation, hypoxia, self-imposed stresses, spatial disorientation and vision are examined. (3 hr. Lecture)

ASC2670**Aircraft Systems**

3 credits
As preparation for commercial aviation requirements, this course is concerned with a detailed study of aircraft systems, their various sources of basic power and the functional application of mechanisms operated by these systems. Prerequisite: ASC 1610. (3 hr. lecture)

ATF1100**Private Pilot Flight**

3 credits
This course provides flight training in the areas required to safely perform the duties of Private Pilot. This will fulfill the requirements as outlined in FAR part 141 and as presented in the Jeppesen Sanderson Private Pilot syllabus. Upon satisfactory completion of this course, the FAA written exam and the practical exam, the applicant will receive an FAA Private Pilot Certificate, A Class 1 FAA Medical Certificate is required. Corequisites: ATT 1100, ASC 1210. Special fee. (3 hr. lecture)

ATF1601L**Flight Orientation/ Simulator Lab**

1 credit
This course will provide the student with an introduction to the environment of operating an aircraft from a pilot's point of view. It is designed to provide this knowledge to those students such

as Air Traffic Controllers and Aviation Administration Students who have no piloting experience. Special fee. (2 hr. lab)

ATF2200**Instruments Pilot Flight**

3 credits
This course provides the flight training required to safely conduct flights as an instrument-rated pilot. The training is conducted in accordance with Part 141 of the Federal Aviation Regulations as outlined in stages 1 through 4 of the Jeppesen Sanderson Instrument/Commercial Syllabus. Upon satisfactory completion of this course and the Federal Aviation Administration (FAA) knowledge and practical exams, the applicant will receive an FAA instrument rating. Prerequisites: ATF 1100; FAA Private Pilot Certificate; corequisites: ATT 2120; current FAA Medical Certificate. Special fee. (3 hr. lecture)

ATF2210**Commercial Pilot Flight**

3 credits
This course provides pilot training required to allow the student to safely conduct flight as a Commercial Pilot. The training will be conducted in accordance with FAR Part 141 and in concert with stages 5 and 6 of the Jeppesen Sanderson Instrument/Commercial Syllabus. Upon satisfactory completion of this course, the FAA written exam, and FAA practical exam the student will receive an FAA Commercial Rating. A Class 1 Medical Certificate with Instrument Rating are required. Special fee. (3 hr. lecture)

ATF2300**Multi-Engine Pilot Flight**

1 credit
This course provides the flight training required to prepare the student to safely conduct flight as a Multi-Engine Pilot. Upon satisfactory completion of this course, and the FAA oral and practical exam the student will receive an FAA Multi-Engine Rating. Prerequisite: ATF 1100 or ATF 2210; corequisite: ATT 2133. Laboratory fee. (3 hr. lecture)

ATF2501**Flight Instructor-Flight Training**

3 credits
This course provides flight training for the student to develop the ability to analyze the performance of private and commercial flight maneuvers from the right seat of a training aircraft, in compliance with the Federal Aviation Administration Certified Flight Instructor Certificate. Prerequisite: ATF 2300; corequisites: ATT 2131, ATF 2501L. Special fee. (3 hr. lecture)

ATF2501L**Flight Instructor-Laboratory**

1 credit
Provides the student with internship teaching experience based upon the principles of flight instruction learned in ATT 2131 and ATF 2501. Students will learn to develop lesson plans and how to communicate effectively using instructional materials Prerequisite: ATF 2300; corequisite: ATT 2131, ATF 2501. (2 hr. lab)

ATF2651C**Flight Engineer-Turbojet 4 credits**

This course will provide ground and simulator training for the purpose of obtaining a turbojet flight engineer license (Boeing 727) in accordance with provisions of FAR 63.64, FAR 63 Appendix C and Exemption 4901. Each trainee must hold a valid Commercial Pilot's Certificate with an instrument rating. Each trainee must also have successfully completed the FAA Flight Engineer Written Exam in accordance with FAR 63.35(d). (3 hr. lecture; 2 hr. lab)

ATT1100**Private Pilot Theory 3 credits**

This course introduces basic subjects pertaining to pilot knowledge including: basic aircraft systems, aircraft operation and performance, aerodynamic principles, human factors, and aeronautical decision making. When this course is taken concurrently with ATT 1101, it will prepare students for the FAA (Federal Aviation Administration) Private Pilot Knowledge Examination and allow them to take the FAA exam (IAP047) upon completion of the course. This course meets the requirements of FAR part 141 for a ground school for the FAA Private Pilot Certificate. Corequisite: ASC 1210 (3 hr. lecture)

ATT1101**Private Pilot Applications 3 credits**

This course, together with ATT 1100, provides the basic knowledge needed by students in the Professional Piloting Technology program. The two courses must be taken concurrently by students majoring in the professional Piloting Technology program. The areas of study include: aircraft preflight, the planning and preparations prior to flight, airport operations, airspace, Federal Aviation Regulations, flight information publications, air navigation, cross country navigation, radio navigation, and flight safety. When this course is taken simultaneously with ATT 1100, it will prepare students for the FAA (Federal Aviation Administration) Private Pilot Knowledge Examination and allow them to take the FAA exam (IAP047) upon completion of the course. Corequisites: ATT 1100, ASC 1210. (3 hr. lecture)

ATT2110**Commercial Pilot Theory 3 3 credits**

This course provides students with the aeronautical knowledge required to act as Commercial Pilot. Students will prepare for the FAA Commercial Written Exam. Private Pilot Certificate with Instrument Rating required. Prerequisite: ATF 2200. corequisite: ATF 2300 or 2210. (3 hr. lecture)

ATT2120**Instruments Pilot Theory 4 credits**

This course introduces basic theories of instrument pilot operations to prepare students for the FAA Instrument Written Exam. Students will acquire aeronautical knowledge required to act as an Instrument rated Pilot. It will prepare the students for the FAA Instrument Written Exam. Private Pilot

Certificate required. Prerequisites: ASC 1210, ATF 1100, ATT 1100; corequisite: ATF 2200. (4 hr. lecture)

ATT2131**Flight Instructor Theory 3 credits**

Provides the student ground instruction to obtain the necessary aeronautical knowledge, to meet the FAA written standards for the Certified Flight Instructors Certificate. Preparation for the written exam is included in the course content. Prerequisite: ATF 2300; corequisites: ATF 2501, 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**

The 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 students skill in the ATC environment. Emphasis is placed on the duties and responsibilities of operational positions in local, ground, flight data, and coordination. Students will also learn the FAA regulations which govern flight under visual conditions. Optimum use of the Hughes Virtual Tower incorporated into this course. Prerequisite: ATT 2820. Special fee. (3 hr. lecture)

ATT2823**Air Traffic Control (ATC)****NON-Radar 3 credits**

In this course, future air traffic controllers will acquire an understanding of air traffic control practices, policies and procedures and their application in a non-radar air traffic environment. Throughout this course, (Non-Radar Procedures) appropriate real-life examples are used to illustrate the reasoning behind procedures used by air traffic controllers utilizing the non-radar methods. The liberal use of figures and example phraseology is used to assist the student in achieving an overall understanding of the air traffic control system. Prerequisites: ATT 2820, ASC 1210. Special fee. (3 hr. lecture)

AVM1010**Aviation Industry Operation 3 credits**

The course provides insight into the development and present status of aircraft and air transportation, governmental organizations, controls and regulations, and career opportunities in the field. (3 hr. lecture)

AVM1022**Flight Operations 3 credits**

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**

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 9 types of dangerous goods in air transportation and general logistics. Prerequisite: AVM 2120. Special fee. (3 hr. lecture)

AVM1301**Aviation Sales
and Promotion****3 credits**

A presentation and utilization of sales methods, sales tools, sales opportunities and personal sales skills requirements for entry level sales employment in the aviation industry. Included are sales campaign planning and implementation factors of flight, travel and cargo options. (3 hr. lecture)

AVM1440**Aviation/Airport Security****3 credits**

This course will provide the student with knowledge of the issues and strategies that are used to protect the national airspace system, airports and airlines from security threats. The various types of threats and responses to those threats will be covered. In addition, the legal requirements planning issues, physical equipment and facility requirements and personnel issues will also be discussed. (3 hr. lecture)

AVM1520**Airline Reservations****3 credits**

Prepares students for airline employment opportunities through a familiarization of the procedures involved in airline reservations, cargo reservation and route structures, using the American Airline's SABRE reservations and LATA systems. This course is not approved for the Travel Agency Management degree. A.S degree credit only. Special fee. (3 hr. lecture)

AVM1521**Airline Ticketing****3 credits**

A preparation for airline employment opportunities requiring the responsibilities of airline ticketing procedures manual and automated (American Airline's SABRE system) for domestic and international ticketing, teleticketing, boarding procedures, and immigration guides. This course is not approved for the Travel Agency Management Degree. A.S. degree credit only. Special fee. (3 hr. lecture)

AVM1949**Co-op Work****Experience 1: AVI****3 credits**

This is a course designed to provide training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Students will be assigned specific course prefixes

related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval. Prerequisite: 2.0 minimum GPA, approval of Co-op Program Director, minimum of 6 credits in field or work approved experience. (3 hr. lecture)

AVM2120**Air Cargo****3 credits**

The course develops a comprehensive grasp of the characteristics and evolution of air cargo, its impact on United States industry, inherent problems and future development. (3 hr. lecture)

AVM2410**Principles of****Airport Management****3 credits**

This course provides the student with a broad background in the Principles of Airport Management. This includes the airport system and its history, planning, land use, community relation issues, financial issues, capacity and growth, operations, organization and administration. Special fee. (3 hr. lecture)

AVM2431**Customer Service Agent****3 credits**

Covers the generic skills needed for any airline position involving regular contact with the traveling public. Includes human relations, personal appearance enhancement, etiquette, conflict management, speech skills, and the acquisition of attributes that would promote a proper professional image. (3 hr. lecture)

AVM2441**Aviation Safety &****Human Factors****3 credits**

This course will provide the student with an understanding of human factors and safety concepts as they apply to aviation. There will be an evaluation of aircraft accidents and their causal factors. Accident prevention measures are stressed as integral parts of an aviation safety program. (3 hr. lecture)

AVM2450**Airport Facilities/
Financial Planning****3 credits**

This course provides the student with an in depth knowledge of the techniques and strategies of the airport master plan in planning airport facilities and financial resources. Forecasting, demand analysis, sources of funding, planning requirements, environmental issues and requirements and compliance issues will be discussed. Also implementation and control issues, financial management, budgets, costs and revenues as well as airport economics will be discussed. Prerequisite: AVM 2410. Special fee. (3 hr. lecture)

AVM2510**Airline Management****3 credits**

An insight relative to the business policies and the functions of management in airline operations. Course involves various internal

managerial facets and the impact of external regulatory and economic implications. (3 hr. lecture)

AVM2515**Airline Marketing****3 credits**

A differentiation of the functions of marketing in airline operations; market research, demand analysis, advertising and promotion, sales, traffic, and the theory of price determination. (3 hr. lecture)

AVM2949**Co-op Work****Experience 2: AVI****3 credits**

This is a course designed to continue training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval. Prerequisite: 2.0 minimum GPA, approval of Co-op Program Director, completion of AVM 1949. (3 hr. lecture)

Agriculture & Related Technologies

ATE1110**Animal Anatomy****3 credits**

This course explores the physical and functional phenomena that interact to sustain life in animals. Relationships of all of the systems in domestic animals, such as the osseous apparatus, the respiratory, digestive, genitourinary, endocrine, and nervous systems will be presented. The student will also be introduced to the descriptive and topographical terms needed to communicate with the professional staff. Prerequisites: BSC 1005, 1005L, ENC 1101; corequisites: ATE 1110L, 1211, 1650L, 1940. (3 hr. lecture)

ATE1110L**Animal Anatomy &****Physiology Lab****1 credit**

This course will complete the coverage and understanding of the physiological and anatomical relationships required for further development as a veterinary technician. This course will correlate with lecture material learned in the Animal anatomy and Animal Physiology lecture courses. Anatomical dissection, necropsy, examination of live animals will be used as well as the study of radiographs, skeleton models and histological sections. (2 hr. lab)

ATE1211**Animal Physiology****3 credits**

This course is designed to explore the terminology related to animal physiology, in addition to all aspects of the functions of systems in small and large animals. (3 hr. lecture)

ATE1630

Pharmacology for Veterinary Technicians 2 credits
This introductory course reviews drug classifications and office procedures/management. Students will learn methods of calculating appropriate drug dosage, routes of administration, and evaluation of drug efficacy as well as office procedures used in veterinary hospital management. A.S. degree credit only. (2 hr. lecture)

ATE1650L

Introduction to Clinical Practice 1 1 credit
This introductory course is designed to acquaint the student with skills associated with veterinary clinical practice. Students will learn basic office, laboratory and nursing skills, including hospital/office management, restraint, history taking, examination room techniques, administration of medication, basic parasitology, and basic clinical pathology procedures. A.S. degree credit only. (3 hr. clinic)

ATE1940

Veterinary Clinical Experience 1 1-3 variable credits
This entry clinical course provides supervised clinical experience in a veterinary facility. Students will learn and reinforce competencies in clinical laboratory procedures, venipuncture techniques, physical examination of patients, administration of intramuscular and subcutaneous injections and exam room protocol. A.S. degree only. (3-9 hr. clinic)

ATE1941

Veterinary Clinical Experience 2 2-3 variable credits
This course consists of supervised clinical experience in the veterinary workplace. Students will learn to enhance the competencies from ATE 1940 Veterinary Clinical Experience 1 while adding application of classroom knowledge in pharmacology, clinical laboratory procedures, and radiology. Prerequisite: ATE 1940. A.S. degree credit only. (6-9 hr. clinic)

ATE2050L

Animal Nursing & Medicine Laboratory 2 2 credits
The student will practice training a dog, and applying corrections for common behavioral problems. Clinical training in a small animal necropsy is also presented. Prerequisites: ATE 1110, 2631, 2655L; corequisite: ATE 2612. (2 hr. lab)

ATE2611

Animal Medicine 1 3 credits
This course is designed to acquaint the student with anesthesiology, asepsis and general surgical nursing care, essentials in pharmacy and pharmacology, and concepts in microbiology, virology and immunology. Prerequisites: ATE 1110, 1211; corequisites: ATE 2661, 2942, 2631, 2655L. (3 hr. lecture)

ATE2612

Small Animal Nursing 2 3 credits
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. Prerequisites: ATE 1110, 1211; corequisites: ATE 2611, 2655L. (3 hr. lecture)

ATE2636

Large Animal Clinic & Nursing Skills 2 credits
This course is designed to acquaint the student with the fundamentals of large animal herd management, reproductive physiology and lactation physiology. Aspects of equine, bovine, ovine and porcine husbandry will be included. Prerequisites: ATE 1110, 1211 corequisite: ATE 2636L. (2 hr. lecture)

ATE2636L

Large Animal Clinic & Nursing Skills Laboratory 1 credit
This course is designed to acquaint the student with the fundamentals of large animal husbandry, herd health management, preventive medicine, animal restraint and nutrition as it relates to the bovine, equine, porcine and caprine species. Techniques discussed in the Large Animal Clinic and Nursing skills course such as venipuncture, injections and administration of other oral medications will be reviewed and demonstrated. One laboratory session will be devoted to poultry science. (2 hr. lab)

ATE2638

Animal Lab Procedures 1 3 credits
This course is designed to introduce the veterinary technician to common parasites and their life cycles seen in routine veterinary practice. Also, hematology and the kinetics of the hematopoietic system are discussed with emphasis on normal blood smears and

common changes seen during disease stages of the domestic animals. Prerequisites: ATE 1110, 1211; corequisite: ATE 2638L. (6 hr. lab)

ATE2638L

Animal Lab Procedures 1 Laboratory 2 credits
This course is designed to acquaint the student with clinical laboratory procedures covered in the Animal Laboratory Procedures 1 course. Areas of emphasis include hematology, coagulation and parasitology as well as general laboratory etiquette. Corequisite: ATE 2638. (4 hr. lab)

ATE2639

Animal Lab Procedures 2 3 credits
This course serves as a continuation of Animal Laboratory Procedures 1 and covers immunology, liver function and diagnostic testing for liver abnormalities, kidney function and testing used in disease states, urinalysis, pancreatic evaluation; normal and abnormal exfoliative cytology; and the evaluation of endocrine disorders. It also will include principles of serological testing and microbiological methods and protocols. Prerequisites: ATE 2638, 2638L; corequisite: ATE 2639L. (3 hr. lecture)

ATE2639L

Animal Lab Procedures 2 Laboratory 2 credits
This course provides experience in the practical applications discussed in Animal Laboratory procedures 2. It also will include principles of serological testing and microbiological methods and protocols as well as dentistry for the veterinary technician. Prerequisites: ATE 2638, 2638L; corequisite: ATE 2639. (4 hr. lab)

ATE2652L

Introduction to Clinical Practice 2 1 credit
The clinical application of basic veterinary radiology and surgical nursing skills will be the primary focus of this practicum. The student will demonstrate skills under supervised instruction. Prerequisite: ATE 1110, 1650L; corequisite: ATE 1941. (1hr. lab)

ATE2655L

Animal Nursing & Medicine Laboratory 1 2 credits
This course is designed to acquaint the student with exam room and restraining techniques, anesthesia and surgical protocols and diagnostic imaging procedures used in veterinary hospitals. (4 hr. lab)

ATE2661

Large Animal Diseases 1 credit
This course is designed to acquaint the student with the fundamentals of preventative medicine and with the common disease seen in the large animal species. Aspects of equine, bovine, ovine and porcine diseases and common treatments will be emphasized. Prerequisites: ATE 1110, 2636, 2636L; corequisite: ATE 2611. (1 hr. lecture)

ATE2671C**Lab Animal Medicine 2 credits**

This foundation course provides instruction on laboratory animal care. Students will learn the technical aspects of laboratory animal care, including restraint and handling, common diseases and nutrition. The animals studied include rabbits, rats, mice, guinea pigs, hamsters and primates. A.S. degree credit only. (1 hr. lecture; 2 hr. lab)

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)

ATE2722C**Avian & Exotic Pet Medicine 2 credits**

This course is designed to acquaint students with the medical care associated with exotic animal and avians. Students will learn types of species that may be encountered in a practice and their associated care techniques. A.S. degree credit only. (1 hr. lecture; 2 hr. lab)

ATE2942**Veterinary Clinical Experience 3 2-4 variable credits**

This course provides clinical experience to the student, under the supervision of a veterinarian. Students will enhance the competencies learned in ATE 1940 - Clinical Experience 1 and ATE 1941 - Veterinary Clinical Experience 2 and master skills associated with advanced veterinary technology practice. Prerequisite ATE 1941. A.S. degree credit only. (6-12 hr. clinic)

ATE2943**Veterinary Clinical Experience 4 1-3 variable 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**

Those 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 & Maintenance 3 credits**

The design, maintenance, and installation of nursery and landscape irrigation systems. All types of nursery systems will be covered including field, shade house, and mist. Both sprinkle and low volume (drip) systems will be surveyed for appropriateness in nursery and landscape uses. Includes occasional 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. Prerequisite: 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 residential landscape designs. A combination lecture/lab course. Prerequisites: CGS 1060 (or equivalent) and working Knowledge of landscape plants or permission of instructor. (1 hr. lecture; 2 hr. lab)

ORH2837C**Computer-Aided****Landscape Design 2** 2 credits

Students will carry out landscape design projects with CAD as required in a landscape design business. Appropriate landscape design principles will be applied to landscape projects and presented in CAD-generated drawings. A combination lecture and lab course. Prerequisites: ORH 2835C, CGS 1060 (or equivalent) and working knowledge of landscape plants or permission of instructor. (1 hr. lecture; 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** 3 credits

The internship will provide students with hands-on work experience in horticulture. Landscape, or related technology industries. Students will learn employability skills, and the specific skills and safety requirements necessary for effective work in this environment. (144 hr. Internship)

American & Afro-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)

American Sign Language and ASL Interpretation

ASL1000**Survey of Deaf Studies**

3 credits

Provides an overview of aspects of deafness including demographics, audiology, education, rehabilitation, assistive devices and organizations on deafness and interpreting. (3 hr. lecture)

ASL1140C**American Sign Language 1**

4 credits

Provides introductory information on the linguistics of American Sign Language and

approximately 500 sign concepts. Course includes lecture, discussion and lab practice. (4 hr. lecture)

ASL1150C**American Sign Language 2** 4 credits

Provides continued instruction in the linguistic principles of American Sign Language and an additional 500 sign concepts. Course includes lecture, discussion and lab practice which is conducted in ASL. Prerequisite: ASL 1140C. (4 hr. lecture)

ASL1906**Directed Independent****Studies** 1-2 variable credits

Provides continued instruction in the linguistic principles of American Sign Language and an additional 500 sign concepts. Course includes lecture, discussion and lab practice which is conducted in ASL. Prerequisite: ASL 1140C. (4 hr. lecture)

ASL2160C**American Sign Language 3** 4 credits

Provides linguistic principles of American Sign Language at the intermediate level and an additional 500 sign concepts. Lecture, discussion and lab practice are included. Students have increased opportunities for interaction with members of the deaf community. Increasingly, class sessions are conducted in ASL. Prerequisite: ASL 1150C. (4 hr. lecture)

ASL2200C**American Sign Language 4** 4 credits

Provides linguistic principles of American Sign Language at the advanced level and an additional 500 sign concepts including idioms used in ASL. Lecture, discussion and lab practice are included. Class sessions are conducted predominately in ASL. Prerequisite: ASL 2160C. (4 hr. lecture)

ASL2210**ASL Conversational Skills**

3 credits

This course will provide practice communication in American Sign Language (ASL). Students will use previously acquired knowledge of ASL vocabulary and linguistic principles to communicate in the language. Prerequisite: ASL 2160C. (3 hr. lecture)

ASL2220**Receptive Skills Development** 3 credits

The course will focus on increasing the students' receptive understanding of signed communications. Examples of American Sign Language (ASL) will be presented via videotapes and live interactions with deaf persons. Students will identify all the components and linguistic features of ASL and will provide appropriate English translations either in speech (paraphrasing) or in written form. Prerequisite: ASL 1150C. (3 hr. lecture)

ASL2400**Linguistics of American Sign Language**

3 credits

Course is designed for persons who already have an understanding of ASL principles.

Provides an overview of the various systems of manual communication used in the U.S. including PSE, Cued Speech and signed English. Prerequisite: ASL 2160C. (3 hr. lecture)

ASL2430**Manual Alphabet****Skills Development** 3 credits

Content focuses on acquiring both expressive and receptive skill in the manual alphabet of American Sign Language, commonly known as fingerspelling. A performance test is given at the beginning of the course to determine existing competency. Prerequisites: ASL 1140C, 1150C. (3 hr. lecture)

ASL2510**Deaf Culture and Community** 3 credits

The course provides an in-depth study of the lives and experiences of deaf and hard of hearing persons and it examines why many deaf people consider themselves to belong to a unique cultural group. Characteristics of the culture are examined along with the impact of hearing loss on one's family, friends and employment. Multicultural issues will be covered since the impact of hearing loss is addressed differently in various ethnic groups. Also examined are societal attitudes regarding disability in general and hearing loss and communication difficulties in particular. Prerequisites: ASL 1150C, 1000. (3 hr. lecture)

SPA2001**Introduction to****Communication Disorders** 3 credits

An introduction to functional and organic speech problems which interfere with oral communications and to the profession of speech science and correction; speech and hearing therapy, in public, private, or governmental agencies. (3 hr. lecture)

Anthropology

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. Mediums of presentation will vary from pencil to pen. (3 hr. lecture; 2 hr. lab)

ARC1115

Architectural Communications 1 2 credits
Exercises in freehand drawing, sketching and linear perspective are designed to increase the student's awareness of the architectural environment. This is accomplished through a series of form studies of nature, architectural forms, and abstract elements of composition. Corequisite: IND 1020. Laboratory fee. (1 hr. lecture; 2 hr. lab)

ARC1126

Architectural Drawing 1 4 credits
Exercises in the visualization and drafting of architectural objects and construction conditions using orthographic projection, isometric and sectional drawings as an expression of architectural communication. Includes plans, elevations, details, schedules, and sections of a wood frame and masonry structures. Prerequisite: BCN 1251 One year high school architectural drafting. Laboratory fee. (2 hr. lecture; 4 hr. lab)

ARC1128

Architectural Drawing 2 4 credits
A simulation of an actual architectural drafting room. The instructor issues preliminary design drawings from which the student prepares working drawings. The problems presented have varied materials and structural systems, differing occupancies, etc., offering a series of new experiences in architectural drawing. Prerequisite: ARC 1126. Laboratory fee. (2 hr. lecture; 4 hr. lab)

ARC1301

Architectural Design 1 4 credits
Introductory course to architectural design, its scope, methods and vocabulary interfacing graphics and design as a means towards an awareness and understanding of basic organizational principles. Design concepts analyzed through graphical representation and modeling. Pre/corequisite: ARC 1115. Laboratory fee. (2 hr. lecture; 4 hr. lab)

ARC1302

Architectural Design 2 4 credits
A continuation of ARC 1301, emphasizing the application of ordering concepts, and aspects and determinants of form and space. An individual design process is developed by the student. Pre-/Co-Requisites: ARC 1126, 2701; Prerequisite: ARC 1301. Laboratory fee. (2 hr. lecture; 4 hr. lab)

ARC1949

Co-op Work Experience 1: ARC 3 credits
This is a course designed to provide training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education office to obtain registration approval. Prerequisite: 2.0 GPA, approval of Co-op Program Director and a minimum of 6 credits in field or approved work experience. (3 hr. lecture)

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. Prerequisite: ARC 1126 or 2461. Laboratory fee. (2 hr. lecture; 4 hr. lab)

ARC2172

Computer Aided Drafting 2 4 credits
This course is designed for students with previous computer-aided design knowledge. Students will use both 2-dimensional and 3-dimensional CAD software to further develop their abilities to apply CAD techniques to the solution of architectural, engineering, and interior design problems. Prerequisite: ARC 2171. Laboratory fee. (2 hr. lecture; 4 hr. lab)

ARC2178C

Introduction to Building Surfacing 4 credits
A BIM course introducing building surfacing and form finding technology. Students will learn the practice of creating complex building models and non-traditional architectural geometries, exploring design intent modeling, and generating solid models from surface models through AEC related objects. Design drivers, computational geometry, and advanced assembly techniques are explored. Prerequisite: ARC 2180C (2 hr. lecture; 4 hr. lab)

ARC2180C

Introduction to 3D Building Modeling 4 credits
An introduction to 3D building modeling and generative drafting as it applies to the fields of architecture and interior design. Students will learn current practices in 3D building design by emphasizing the manipulation of commands used for modeling, drawing, editing, dimensioning, basic drawing management, and drawing output. Prerequisites: ARC 2172, CGS 1060, MAC 1105. (2 hr. lecture; 4 hr. lab)

ARC2201

Theory of Architecture 3 credits
An introduction to the meaning of Architecture to society, the foundation theories of architecture and an exposure to the ways and means of the creative process. Prerequisite: ARC 1115. (3 hr. lecture)

ARC2303

Architectural Design 3 5 credits
Integration of the natural and built environment with physiological, functional, organizational, spatial and environmental forces. Prerequisites: 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)

ARC2312C**Introduction to**

Building Assembly Modeling 4 credits
Introduction to the principles of Building Assembly Modeling. Students will learn to explore a building as an assembly of architectural objects and subassemblies, using virtual design and construction software. In addition, students will learn part modeling, assembly modeling, generative drafting, and general representational and modeling techniques. Prerequisites: ARC 2172, CGS 1060, and MAC 1105. (2 hr. lecture; 4 hr. lab)

ARC2461**Architectural Materials and Construction 1****4 credits**

An introduction to basic materials and methods of building construction. Emphasis is on wood, concrete, unit masonry, and light steel construction. Laboratory projects may include working drawings interpretation, sketching construction details, or field trips to construction sites and fabricant plants. Designed primarily as the initial materials and methods course for architectural transfer students. Prerequisite: ARC 1126 or BCN 1251. Laboratory fee. (2 hr. lecture; 4 hr. lab)

ARC2580**Architectural Structures 1****4 credits**

A basic structural course, designed primarily for Architectural and Construction majors, covering the fundamentals of statics. Timber design emphasized. Prerequisite: MAC1114; pre-/corequisites: PHY 2053, 2053L and ARC 1126, 2461. Laboratory fee. (3 hr. lecture; 2 hr. lab)

ARC2681**Environmental Technology****3 credits**

An introduction to technology aspects of building design which relates to human comfort, safety, and building performance. Includes a survey of the fundamentals of water supply, waste lines, plumbing equipment, heat and air conditioning; solar applications; and electrical components and equipment in the design and construction of buildings. Prerequisite: ARC 1126. (3 hr. lecture)

ARC2701**History of Architecture 1****3 credits**

A general survey of architecture from primitive times through the 18th century including an integration of art forms, structural forms and ornamental forms used in various cultures of the world during those times. (3 hr. lecture)

ARC2702**History of Architecture 2****3 credits**

A general survey of architecture from the 19th century through the present, including an integration of art forms, structural forms, and ornamental forms used in various cultures of the world during these times. Gordon Rule assigned. (3 hr. lecture)

ARC2765**An Introduction to:**

Cities of the World 3 credits
This course is a comparative study of contemporary cities 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 is a course designed to continue training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval. Prerequisite: 2.0 minimum GPA, approval of Co-op Program Director and completion of ARC 1949. (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 his 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 and their place in 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. Prerequisite: ARH 2050. Gordon Rule assigned. (3 hr. lecture)

ARH2402**Art History 3****3 credits**

A world survey of modern visual arts from 1850 A.D. - present. Prerequisite: ARH 2051. (3 hr. lecture)

ARH2740**Cinema Appreciation****3 credits**

An analysis of the cinema as an important social force and an artistic medium. Significant American, British, and foreign language films will be shown and discussed. Prerequisite: HUM 1020. Gordon Rule Assigned. (2 hr. lecture; 2 hr. lab)

ART1201C**Basic Design****3-4 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 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 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 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 is focused on learning the theory and practice of color mixing and compositional arrangement. The course will examine the various interactions of color and their creative application so that the student may use color more effectively in fine arts and applied design. (1-2 hr. lecture; 4 hr. lab)

ART1300C**Drawing**

3-4 variable credits

Basic problems in freehand drawing, including perspective, still-life and landscape. Emphasis is on developing a sense of structure through line, form and texture. (1-2 hr. lecture; 4 hr. lab)

ART1330C**Figure Drawing**

3-4 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. (12 hr. lab)

ART1949**Co-op Work****Experience 1: ART**

3 credits

This is a course designed to provide training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-op Department approval. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval. (3 hr. lecture)

ART2142C**Advanced Metals**

4 credits

Individualized instruction in metal forming specifically oriented toward the student's aesthetic concerns. May be repeated for

credit. Prerequisites: ART 2150C, 2151C. (2 hr. lecture; 4 hr. lab)

ART2150C**Jewelry and****Metalsmithing 1**

4 credits

An introduction to creative design as applied to jewelry, flatware, and hollowware forms. Prerequisite: ART 1202C or 1300C. Laboratory fee. (2 hr. lecture; 4 hr. lab)

ART2151C**Jewelry and****Metalsmithing 2**

4 credits

Advanced techniques in jewelry making and metalsmithing. Prerequisite: ART 2150C. Laboratory fee. (2 hr. lecture; 4 hr. lab)

ART2301C**Drawing 2**

3-4 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. Prerequisite: 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)

ART2406C**Advanced****Printmaking**

3-4 variable credits

Individualized instruction on printmaking concepts specifically oriented toward the student's aesthetic concerns. May be repeated for credit. Prerequisites: ART 2400C, 2401C. Laboratory fee. (1-2 hr. lecture; 4 hr. lab)

ART2500C**Painting 1**

3-4 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 student's 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. lab)

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 sculpting 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 student's aesthetic concerns. May be repeated for credit. Prerequisite: ART 2701C, 2702C. Laboratory fee. (1-2 hr. lecture; 4 hr. lab)

ART2750C**Ceramics 1**

3-4 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)

ART2771C**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)

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 disciplines. 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 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)

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 examining income statements and balance sheets. This course covers both the technical side of small business lending and the interpersonal skills required to be a successful loan officer. Prerequisites: ACG 2021, 2021L. (3 hr. lecture)

BAN1240**Installment Credit****3 credits**

The pragmatic "how-to" details of installment credit. Topics covered are principles of credit

evaluation, open-end credit, marketing bank services, collection policies and procedures, legal aspects, financial statement analysis, direct and indirect installment lending, leasing and other special situations, installment credit department management, insurance and rate structure yields. Designed for branch personnel; and management trainees. A.S. degree credit only. (3 hr. lecture)

BAN1241**Bank Cards****3 credits**

This course presents an overview and update of the bank card industry. The development of the card, operational aspects, legal and regulatory issues, and implications for the future of the card are discussed in depth. A.S. degree credit only. (3 hr. lecture)

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; 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)

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 their banks offer, the scope and advantages of these banking services, customer needs based on a bank transaction or conversation with the customer and the appropriate service to the perceived customer need. Designed for tellers and new accounts personnel. A.S. degree credit only. (3 hr. lecture)

BAN1744**BankSim****3 credits**

Through the use of a sophisticated computer model, participants actually "run" in a competitive society and a changing economy-a \$500 million commercial bank. Designed for operations, long term financial strength and asset utilization. A.S. degree credit only. (3 hr. lecture)

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 Experience 1 3 credits**

This is a course designed to provide training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-op Department approval. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Cooperative Education Office to obtain registration approval. (3 hr. lecture)

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 analy-

sis), and interpretation of financial accounting information including the balance sheet, income statement and statement cash flows. Prerequisite: BAN 2210. Special fee. (3 hr. lecture)

BAN2253**Residential Mortgage Lending 3 credits**

Introduction to the residential mortgage lending process, functions and participants. General principles in loan origination, underwriting and closing of residential mortgage loans will be covered. Course content will include the mortgage loan process of applying and qualifying for home loan financial and various types of loans available in the market place. A.S. degree credit only. (3 hr. lecture)

BAN2501**Money and Banking 3 credits**

A course designed to provide a comprehensive overview of the role of money and the banking industry within the United States and abroad. There is an emphasis on basic concepts in the areas of banking regulations, monetary policy, fiscal policy, interest rates, money creation, and foreign exchange markets. The class is designed for both students who are new to banking, as well as for bankers who need an update on the changes affecting the banking industry. Prerequisite: ECO 2013. (3 hr. lecture)

BAN2511**Marketing for Bankers 3 credits**

Introduces the basics of bank marketing and provides the information necessary to understand the role of marketing in the business of banking. Builds fundamental marketing skills and demonstrates their application to various levels of business processes. Discusses effective strategic marketing process including research, analysis setting goals and objectives, evaluating marketing mix, implementation and evaluation of marketing plan, and communication of marketing objectives. Prerequisite: MKA 1021 A S. Degree credit only. (3 hr. lecture)

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)

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 competitiveness of 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 product and non-traditional underwriting guidelines and home buyer education and counseling. A.S. degree credit only. (3 hr. lecture)

BRC2267**Fair Housing and Fair Lending 3 credits**

This course will cover the legislative policies origins of regulatory and compliance laws, designed to prohibit discriminatory practices in lending. A.S. degree credit only (3 hr. lecture)

BRC2268**Mortgage Loan Servicing and Quality 3 credits**

This course will cover servicing of mortgage loans from the close of the loan until the final payment. The student will be provided with an in-depth study of the actual procedures required in the daily operations of mortgage loan servicing. This course will include a study of the quality control technique and an understanding of the importance of the ethics in mortgage lending. A.S. degree credit only. (3 hr. lecture)

BRC2353**Marketing for****Financial Institutions****2 credits**

The facts and principles of marketing are set forth in this course. Topic includes: the marketing concept and structure, marketing information and buyer behavior, consumer and intermediate customers' buying behavior, product packaging and branding decisions, consumer and industrial goods, product planning and time-place utility, channels of distribution, promotion, pricing strategy, and developing a marketing program, controlling marketing programs, and the cost-value to society. A.S. degree credit only. (2 hr. lecture)

BRC2941**Field Experience in****Mortgage Finance****3 credits**

Skills learned in the classroom environment are not only reinforced but become instilled in a student when opportunities in the practical work environment are presented. A.S. degree credit only. (3 hr. lecture)

Biochemistry

BCH3023**Introductory Biochemistry****3 credits**

This course surveys the fundamental components of biochemistry. In this course, students will learn concepts such as the structure and function of amino acids, proteins, carbohydrates, lipids, and nucleic acids, together with discussions of oxidative metabolism and regulation. Prerequisites: CHM 2200, 2200L, BCH 3032L. (3 hr. lecture)

BCH3023L**Introductory Biochemistry****Laboratory****2 credits**

This laboratory course complements the lecture corequisite BCH 3023, which involves the study of the fundamental components of biochemistry. In this laboratory course students will learn and will be provided with hands-on experiences with the concepts addressed in the lecture course. (4 hr. lab)

Biological Science

BOT1010**Botany****3 credits**

A survey of the plant kingdom based on a detailed study of the morphology, anatomy and physiology of selected representative specimens. Corequisite: BOT 1010L. (3 hr. lecture)

BOT1010L**Botany Laboratory****1 credit**

Laboratory for BOT 1010. Corequisite: BOT 1010. Laboratory fee. (2 hr. lab)

BOT2150C**Native Plant Identification****and Usage in South Florida****3 credits**

Plants native to south Florida are identified and presented by their typical ecological community. Emphasis is primarily upon pine-land, tropical hammock, mangrove and coastal, Everglades marsh, and cypress swamp communities. Plants appropriate for use in urban landscapes as well as in ecological restorations are covered. A combination lecture and lab course. (2 hr. lecture; 2 hr. lab)

BOT2157C**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 structure, function and genetics of plants. This course covers the evolutionary relationships, natural history, ecological adaptations, physiology, morphology and reproductive biology of gymnosperms and angiosperms. (3 hr. lecture)

BOT3015L**Survey of Plant****Diversity Laboratory****1 credit**

This course is designed to provide the necessary laboratory experiments and dissection exercises to supplement/accompany the BOT 3015 Survey of Plant Diversity lecture course. This laboratory course explores the plant kingdom and gives emphasis on structure, function and genetics of plants. Appropriate dissections and laboratory exercises are designed to explore the fundamental cell and tissue structures of both vascular and non-vascular plants. Prescribed laboratory activities focus on plant morphology, taxonomy, anatomy and physiology of selected representative specimens. Corequisite: BOT 3015. (2 hr. lab)

BSC1005**General Education Biology****3 credits**

This general education biology course covers basic biological concepts, concentrating on selected principles that help explain molecular biology, evolution, genetics, growth, disease, and the problems of humans in the environment. It is designed to stimulate interest in the variety of life that exists on our planet, help students recognize the factors that provide order in this variety, and involve students in the processes of inquiry, observation, and

analysis of biological organization in order to give them a foundation for intelligently interpreting and evaluating biological topics. (3 hr. lecture)

BSC1005L**General Education****Biology Laboratory****1 credit**

An optional one-credit lab to provide students with experience in the scientific process. Laboratory fee. (2 hr. lab)

BSC1030**Social Issues in Biology****3 credits**

Social Issues in Biology develops in students an understanding and appreciation for living systems (including themselves) and the skills and knowledge needed to address biological issues that are important and relative to their lives and the society in which they live. Such issues include, but are not limited to, the origin of biodiversity, advances in reproductive technology, genetic engineering, scientific ethics, advances in the treatment of disease and genetic disorders, environmental problems and sociobiology. (3 hr. lecture)

BSC1050**Biology & Environment****3 credits**

This course provides students with an understanding and appreciation of how the natural world functions, how human attitudes and actions alter nature systems, creating environmental problems, and how sustainable approaches may resolve these problems. (3 hr. lecture)

BSC1084**Functional Human Anatomy****3 credits**

Basic human anatomy for the students in allied health and mortuary science programs. Includes the dynamics of gross and functional anatomy, terminology, body orientation, and systematic relationships. (3 hr. lecture)

BSC1949**Co-op Work****Experience 1: BIO****3 credits**

This is a course designed to provide training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-op Department approval. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Cooperative Education Office to obtain registration approval. (3 hr. lecture)

BSC2010**Principles of Biology****3 credits**

This is the first sequence of two courses that deal with the principles of modern biology. It covers scientific process, the chemistry of life, the basics of metabolism, cell theory, cellular respiration, photosynthesis, classical, and molecular genetics. Pre/corequisites: BSC 2010L, CHM 1045. Special fee. (3 hr. lecture)

BSC2010L**Principles of Biology 1 Laboratory****2 credits**

This laboratory course is designed to complement BSC 2010, Principles of Biology 1. It covers the nature of scientific investigation, the chemistry of life, microscopy, cell structure and function, metabolism, and the continuity of life. Corequisite: BSC 2010. Special fee. (4 hr. lab)

BSC2011**Principles of Biology 2****3 credits**

This is the second in a sequence of two courses that deals with the principles of modern biology. It covers organic evolution, phylogeny, biological diversity, overviews of plant and animal form and function, behavior, as well as population, community, and ecosystem ecology. Prerequisites: BSC 2010, 2010L; corequisite: BSC 2011L. Special fee. (3 hr. lecture)

BSC2011L**Principles of Biology Lab 2****2 credits**

This course is intended for major's students and complements the lecture course BSC 2011. As such, it functions to provide majors students with hands-on experience with laboratory exercises designed to complement the presentation of the principles of biology as they relate to evolution, biological diversity, form and function in plants and animals, ethnology, ecology and conservation biology. Prerequisite: BSC 2010L; corequisite: BSC 2011. (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 and Physiology 2****3 credits**

The structure and functions of the systems of the human body, emphasizing those aspects most pertinent to students in the nursing and allied health technology pro-

grams. Prerequisite: BSC 2085; Corequisite: BSC 2086L. Special Fee. (3 hr. Lecture)

BSC2086L**Human Anatomy and Physiology 2 Laboratory****1 credit**

Laboratory for BSC 2086. Prerequisite: BSC2085L, Corequisite: BSC 2086. Laboratory Fee. (2 hr. lab)

BSC2250**Natural History of South Florida****3 credits**

Integrates and correlates certain features of the natural history of South Florida such as its geology, meteorology, flora, fauna, ecology and conservation. (3 hr. lecture)

BSC2420C**Biotechnology 1****5 credits**

An introduction to the principles of DNA science. The course includes: the chemical and physical properties of nucleic acids (DNA and RNA), cloning, restriction analysis, gene transfer, DNA replication and expression, plasmids and other vectors, transcription and translation, DNA libraries, polymerase chain reaction. Practical applications of biotechnology will be explored. Prerequisites: CHM 1045 and BSC 2010. Special fee. (3 hr. lecture; 4 hr. lab)

BSC2423C**Methods & Applications of Cell Culture & Protein Biotechnology****4 credits**

This course addresses the basic methods and principles of cell culture and protein biochemistry necessary for an understanding of the field and effective applications of cell culture and protein biotechnology are explored with hands-on training in plant and mammalian cell culture and protein purification. Prerequisites: BSC 2427, 2427L. Laboratory fee. (3 hr. lecture; 2 hr. lab)

BSC2426**Biotechnology Methods and Applications 1****3 credits**

This course addresses the basic principles, concepts and techniques of biotechnology necessary for an understanding of the field, and effective work in a pharmaceutical-biotechnology-and/or research laboratory setting(s). Practical applications of biotechnology are explored. Prerequisite: Previous knowledge of chemistry and biology strongly recommended; corequisite: BSC 2426L. (3 hr. lecture)

BSC2426L**Biotechnology Methods & Applications 1 Laboratory****2 credits**

This laboratory course is designed to complement BSC 2426 Biotechnology Methods and Applications 1. This is a hands-on course that emphasizes the basic laboratory principles, techniques, and instrumentation, necessary for effective work in pharmaceutical, biotechnology, and/or research laboratory settings(s). Prerequisite: Previous knowledge of chemistry and biology strongly recommended. Corequisite: BSC 2426. Laboratory fee. (4 hr. lab)

BSC2427**Biotechnology Methods and Applications 2****3 credits**

This course addresses advanced principles, concepts and techniques of biotechnology necessary for an understanding of the field, and effective work in a pharmaceutical-biotechnology-and/or research-laboratory setting(s). The following areas of contemporary biotechnology are covered: forensics, bio-remediation, and medical-, animal-, plant-, and marine biotechnology. Prerequisites: BSC 2426, 2426L. corequisite: BSC 2427L. (3 hr. lecture)

BSC2427L**Biotechnology Methods & Applications 2 Laboratory****2 credits**

This laboratory course is designed to complement BSC 2427 Biotechnology Methods and Applications 2. This is a hands-on course that emphasizes advanced laboratory principles, techniques, and instrumentation necessary for effective work in a pharmaceutical, biotechnology, and/or research-laboratory setting(s). Prerequisite: BSC 2426, 2426L; corequisite: BSC 2427. Laboratory fee. (4 hr. lab)

BSC2943L**Bioscience Internship****3-6 variable credits**

This internship course is a capstone for students majoring in bioscience and related programs. Students will learn to apply acquired knowledge and skills to gain experience in the bioscience workplace A.S. degree credit only. (144-288 hr. Internship)

BSC2949**Co-op Work****Experience 2: BSC****3 credits**

This is a course designed to continue training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-op Department approval and completion of 1949 Co-op Work Experience. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval. (3 hr. lecture)

BSC4422**Biotechnology****3 credits**

This course will prepare students in the knowledge and proper use of laboratory techniques including but not limited to dissection, preservation, staining and mounting of biological specimens for microscopic examination; the use of quantitative and analytical techniques such as chromatography, spectrophotometry and lectrophoresis; the proper use of laboratory equipment such as centrifuges, balances, and microscopes. Preparing laboratory solutions, reagents, and field laboratory techniques. Special emphasis will be placed on appropriate laboratory safety techniques such as the proper use and disposal of laboratory reagents, materials and biological specimens. (3 hr. lecture)

BSC4422L**Biotechnology Laboratory 2 credits**

This course provides students with practical, hands-on laboratory experiences to supplement the 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 microscopes; preparation and measurement of laboratory solutions and reagents; protein/nucleic acid isolation and characterization procedures; and tissue culture techniques. Special emphasis will be placed on relevant laboratory safety techniques and the proper use and disposal of laboratory reagents, materials and biological specimens. Prerequisites: BSC2010, 2010L, 2011, 2011L, CHM 1045, 1045L, 1046, 1046L, MCB 2013, 2013L PCB 3060; corequisites: BCH 3023, BSC 4422. (2 hr. lab)

MCB2010**Microbiology 3 credits**

This course introduces basic principles of morphology, physiology, biochemistry and genetics of microorganisms. The students will learn representative types of microorganisms including bacteria, algae, protozoa and viruses and the roles of various microorganisms in health and disease, modes of transmission and the effects of their activities in our biosphere. Students are strongly recommended to take the laboratory component MCB 2010L. Prerequisites: BSC 2010/2010L or BSC 2085/2085L, CHM 1033/1033L or CHM 1045/1045L. (3 hr. lecture)

MCB2010L**Microbiology Laboratory 2 credits**

This laboratory course to accompany MCB-2010 complements lecture topics. Students will learn and have direct experience with fundamental techniques for observation, isolation, cultivation, counting, identification, and control of microbes. Prerequisites: BSC2010/2010L or BSC2085/2085L CHM1033/1033L or CHM 1045/1045L; corequisite MCB 2010. (4 hr. lab)

OCB1010**Introduction to Marine Biology 3 credits**

An introduction to the biology of the seas. Emphasis is placed on the variety of marine organisms and their structural, physiological, and behavioral adaptations within specific marine environments. Special attention is directed to marine communities, e.g., coral reefs and shallow grass flats, and the factors limiting the distribution of organisms within those communities. Discussions will also be directed towards geological, chemical and physical characteristics of the world's oceans. (3 hr. lecture)

OCB1010L**Introduction to Marine Biology Laboratory 1 credit**

An optional laboratory class for OCB 1010. This laboratory course stresses understanding, familiarization, and identification of local marine organisms and study of local marine communities through field trips to selected local marine habitats and hands-on laboratory activities. An introduction to field collection methods and various sampling techniques is presented. (2 hr. lab.)

PCB2033**Introduction to Ecology 3 credits**

This course will provide students with an understanding of an appreciation for how organisms relate to one another and their environment at the levels of biological organization from the individual to the biosphere. Prerequisites: PSC 1515 or BSC 2011. (3 hr. lecture)

PCB2061**Genetics 3 credits**

This course provides an understanding of the mechanisms of transmission of heritable information including classical principles of Mendelian genetic analysis, principles of modern genetic analysis, gene mapping change and regulation of gene expression. Quantitative genetic analysis, genomics, genetic basis of cell and cancer development will also be explored. Prerequisite: BSC 2010, 2010L. (3 hr. lecture)

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 bimonthly field trips, both marine and terrestrial, will be made. Laboratory fee. (2 hr. lecture; 2 hr. lab)

PCB3043**Fundamentals of Ecology 3 credits**

This is a foundations course in ecology. In this course, students will learn the basic principles of ecology at organismal, population, community, and ecosystem levels, including consideration of Florida's ecosystems and human impact on those systems. Prerequisites: BSC 2011, 2011L. (3 hr. lecture)

PCB3060**Principles of Genetics 3 credits**

This course is an introduction to the mechanisms of transmission of hereditary information. Students will learn the classical Mendelian principles of heredity, deviation of Mendelian principles, genetic analysis, linkage and mapping, genetics of populations, gene regulation, mutation, the genetic bases of cancer and other genetic disorders will also be studied. Prerequisites: BSC 2010, 2010L. (3 hr. lecture)

PCB4674**Evolution 3 credits**

This course is designed to provide students with an understanding of evolutionary theory and its significance to all fields of modern biology. It covers the theory of natural selection, the evidence for evolution, micro evolution, population genetics, speciation, macro evolution, the origin of life on Earth, major evolutionary trends, and evolution of humans and culture. Prerequisites: BSC2010 2011L, PCB3060. (3 hr. lecture)

ZOO1010**Zoology 3 credits**

A survey of the animal kingdom based on a detailed study of the morphology, anatomy, and physiology of selected representative specimens. Corequisite: ZOO 1010L. Special fee. (3 hr. lecture)

ZOO1010L**Zoology Laboratory 1 credit**

Laboratory for ZOO 1010. Corequisite: ZOO 1010. Laboratory fee. (2 hr. lab)

ZOO3021**Survey of Animal Diversity 3 credits**

This course presents zoology as a scientific discipline, the theory of evolution according to natural selection, the basic principles of zoological nomenclature, taxonomy, and systematic, 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 systematic, the basic understanding of the relationships of animals to other organisms, and to one another, and our understanding of the nature, consequences, and outcome of the global biodiversity crisis. This laboratory course provides hands-on experience with the concepts covered in the lecture course. Prerequisites: BSC 2010, 2010L, CHM 1045, 1045L; corequisite: ZOO 3021. (2 hr. lab)

Building Construction

BCN1272**Building Construction Plans Interpretation 1 3 credits**

Develops the ability to interpret working drawings quickly. Emphasis is on architectural and structural details with limited coverage on mechanical and electrical aspects. (3 hr. lecture)

BCN1275**Building Construction****Plans Interpretation 2****3 credits**

Plan interpretation of more complex working drawings for multistory residential and commercial buildings. Students entering this course must have the ability to read and understand construction working drawings for single family residential construction. Identification of structural systems and their details are emphasized for these more complex buildings. Familiarity with all aspects of these working drawings will be addressed. Prerequisite: BCN 1272 or equivalent work experience. Special fee. (3 hr. lecture)

BCN1721**Building Construction****Planning and Cost Control****3 credits**

A study of 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)

BCT1743**Building Construction Law****3 credits**

The legal aspects of construction contracts and the responsibilities arising particularly from the field operations. Also includes relationship of the general contractor to owner, architect, and subcontractor; material men and mechanics lien law; bonds; labor law; and other statutes and ordinances regulating contractors. (3 hr. lecture)

BCT1750**Building Construction****Financing****3 credits**

A study of building construction financing and related contract requirements. Topics include construction loans, permanent building mortgages, construction bids and contracts, penalty and incentive provisions, progress payments and retention, escalation provisions, costs extras, performance and bid bonds, company profits, cash flow, and business loans. (3 hr. lecture)

BCT1770**Building Construction****Estimating Fundamentals****3 credits**

An analysis and determination of building construction cost. The classification of materials, labor, and subcontracted work into the smallest manageable units. Development of a simple estimate for a residential structure. (3 hr. lecture)

BCT1771**Building Construction****Advanced Estimating****3 credits**

Estimating more advanced elements of buildings construction involving commercial buildings. Include indirect and overhead costs, the preparation of bid proposals and related documents. Prerequisite: BCT1770. Special fee. (3 hr. lecture)

BCT2760**Building Code Regulations****3 credits**

The restrictions and limitations of the various agencies concerned with the building indus-

try. Provisions of the South Florida Building Code are stressed. (3 hr. lecture)

Business Law

BUL2131**Legal Environment****3 credits**

Law in relation to the proper conduct of business including a consideration of the nature and sources of law, its legal environment and history. The Topics of business torts, crimes, contracts and forms of organizations are also covered. (3 hr. lecture)

BUL2241**Business Law 1****3 credits**

Law in relation to the proper conduct of business, including a consideration of the nature and source of law, courts and courtroom procedure, contracts, sales of goods, negotiable instruments and secured transactions. Special fee. (3 hr. lecture)

BUL2242**Business Law 2****3 credits**

Emphasis on the laws affecting agencies, the formation and operation of partnership and corporation, personal and real property, insurance, 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**

This course provides the non-science major with an introductory study of the substances central to our daily lives. The students will learn the basic chemistry of nutrition, medicines, cosmetics, household cleaners and the environment. (3 hr. lecture)

CHM1020L**General Education****Chemistry Laboratory****1 credit**

This course provides the non-science major with an introductory study of the substances central to our daily lives. The students will learn the basic chemistry of nutrition, medicines, cosmetics, household cleaners and the environment in a laboratory setting. Corequisite: CHM 1020. (2 hr. lab)

CHM1025**Introductory Chemistry****3 credits**

This course will provide beginning students with certain basic knowledge and skills, which will enable them to be successful in the first semester of General Chemistry I, CHM 1045. The students will learn elementary principles of modern chemistry, including basic measurements, chemical bonding, chemical reactions, stoichiometry, concentra-

tion of solutions, and chemical nomenclature. Prerequisite MAT 1033. (3 hr. lecture)

CHM1025L**Introductory****Chemistry Lab****1 credit**

This course is an optional beginning chemistry laboratory course, which has been designed for those students who have little or no background in chemistry and are enrolled in CHM 1025. Students will reinforce what they learn in CHM 1025, including basic measurements, chemical bonding, chemical reactions, stoichiometry, concentration of solutions, and chemical nomenclature. (2 hr. lab)

CHM1033**Chemistry for****Health Sciences****3 credits**

This course emphasizes chemistry topics related to the allied health sciences through study of the essentials of inorganic chemistry, organic chemistry, biochemistry and their applications to physiological functions. Corequisites: CHM 1033L, MAT 1033 (3 hr. lecture)

CHM1033L**Chemistry for Health****Sciences Lab****1 credit**

This course emphasizes chemistry topics related to the allied health sciences. Students will learn the essentials of inorganic chemistry, organic chemistry, biochemistry, and their application to physiological functions in a laboratory setting. (2 hr. lab)

CHM1045**General Chemistry and****Qualitative Analysis****3 credits**

First half of the CHM 1045-1046 sequence for science, premedical science and engineering majors. Students in programs requiring both courses must complete the CHM 1045-1046 sequence prior to transfer to a senior institution. Major topics in modern chemistry include: stoichiometry, atomic structure, bonding, thermochemistry, acids and bases, solutions and gas laws. Prerequisite: CHM 1025 or high school chemistry with a grade of "C" or better; corequisites: CHM 1045L, MAC 1105. Special fee. (3 hr. lecture)

CHM1045L**General Chemistry and****Qualitative Analysis Lab****2 credits**

Laboratory for CHM 1045. Prerequisite: CHM 1025 or high school chemistry with a grade of "C" or better; corequisites: CHM 1045, MAC1105. Laboratory fee. (4 hr. lab)

CHM1046**General Chemistry and****Qualitative Analysis****3 credits**

Second course in the CHM 1045-1046 sequence. Major topics in modern chemistry include: thermodynamics, Kinetics, solutions equilibria including acids, bases and other ionic equilibria and electrochemistry. Prerequisite: MAC 1105, CHM 1046L with a grade of "C" or better; corequisite: CHM1046L. Special fee. (3 hr. lecture)

CHM1046L
General Chemistry and
Qualitative Analysis Lab **2 credits**
 Laboratory for CHM 1046. Prerequisite:
 CHM 1045, 1045L, and MAC 1105; corequi-
 site CHM 1046. Laboratory fee. (4 hr. lab)

CHM1941
Principles & Techniques
of Peer Tutoring
in Chemistry **1 credit**
 Provides an opportunity for outstanding stu-
 dents with at least one semester of gen-
 eral 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 train-
 ing in a student's field of study through
 work experience. Students are graded in
 the basis of documentation of learning
 acquired as reported by student and employ-
 er. Prerequisite: Co-op department approval.
 Students will be assigned specific course
 prefixes related to their academic major
 prior to registration. All students must contact
 Cooperative Education Office to obtain regis-
 tration approval. (3 hr. lecture)

CHM2120C
Survey of
Quantitative Analysis **4 credits**
 This course is a one-semester combination
 lecture-laboratory course covering the theo-
 ries, calculations, and methodologies used
 in analytical chemistry. Topics include math-
 ematical treatment of data; acid-base equilib-
 ria; and Gravimetric, volumetric, and poten-
 tiometric methods of analysis. Prerequisites:
 CHM 1046, 1046L with a grade of "C" or bet-
 ter. Special fee. (2 hr. lecture; 4 hr. lab)

CHM2132C
Basic Chemistry
Instrumentation **3 credits**
 Designed for chemistry students and pro-
 fessionals who need to learn or refresh
 their abilities to use common instruments
 found in chemistry laboratories. Prerequisite:
 CHM1046 with a grade of "C" or better.
 Laboratory fee. (1 hr. lecture; 4 hr. lab)

CHM2200
Survey of
Organic Chemistry **3 credits**
 This one-semester course briefly examines
 the structure, synthesis, nomenclature and
 reactivity of selected mono-and-poly-func-
 tional organic compounds. Theories that
 relate the structure of organic molecules to
 their chemically reactivity will be presented
 as a unifying principle. Prerequisite: CHM
 1046 with a grade of "C" or higher; corequi-
 site: CHM 2200L. (3 hr. lecture)

CHM2200L
Survey of Organic
Chemistry Laboratory **1 credit**
 Experiments and exercises will be con-
 ducted to introduce students to the basic
 laboratory techniques that are used in
 organic chemistry and that re-enforce
 and illustrate several important topics
 in organic chemistry. Prerequisite: CHM
 1046L with a grade of "C" or higher;
 corequisite: CHM 2200. Special fee. (2 hr.
 lab)

CHM2210
Organic Chemistry 1 **3 credits**
 First half of the CHM 2210-2211 sequence.
 Students should complete the CHM 2210-
 2211 sequence before transferring to a
 senior institution. A study of the nomencla-
 ture, preparations, reactions and electronic
 and structural features of alkanes, alkenes,
 alkynes, alkyl halides, aromatic hydrocarbons
 and other organic compounds. Prerequisite:
 CHM 1046 with a grade of "C" or better;
 Corequisite: CHM 2210L. Special fee. (3 hr.
 lecture)

CHM2210L
Organic Chemistry 1
Laboratory **2 credits**
 Laboratory for CHM 2210. Prerequisite:
 CHM 1046, 1046L with grades of "C" or
 better; Corequisite: CHM 2210. Laboratory
 fee. (4 hr. lab)

CHM2211
Organic Chemistry 2 **3 credits**
 Second half of the CHM 2210-2211 sequence.
 A study of the nomenclature, preparation,
 reactions, and electronic and structural fea-
 tures of alcohols, ethers, phenols, aldehydes,
 ketones, carboxylic acids, acid anhydrides,
 amides, esters, and other organic compounds.
 Prerequisite: CHM 2210 with a grade of "C" or
 better; Corequisite: CHM 2211L. Special fee.
 (3 hr. lecture)

CHM2211L
Organic Chemistry 2
Laboratory **2 credits**
 Laboratory for CHM 2211. Prerequisites:
 CHM 2210, 2210L with grades of "C" or
 better; Corequisite: CHM 2211. Laboratory
 fee. (4 hr. lab)

CHM2949
Co-op Work
Experience 2: CHM **3 credits**
 This is a course designed to continue train-
 ing in a student's field of study through
 work experience. Students are graded on the
 basis of documentation of learning acquired
 as reported by student and employer.
 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 reg-
 istration 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; precipita-
 tion and complex formation; electrochemis-
 try; oxidation-reduction; spectrophochemi-
 cal analytical methods; chromatographic
 techniques; statistical treatment of data; and
 sampling methods. Prerequisites: CHM 1046,
 1046L with a grade of "C" or better; corequi-
 site: CHM 3120L. (3 hr. lecture)

CHM3120L
Introduction to Analytical
Chemistry Laboratory **2 credits**
 Experiments will be performed to intro-
 duce students to various laboratory meth-
 ods used to analyze and quantify rep-
 resentative samples. Prerequisites: CHM
 1046, 1046L with a grade of "C" or better;
 corequisite: CHM 3120. (4 hr. lab)

CHM3610
Intermediate
Inorganic Chemistry **3 credits**
 This course expands and deepens the stu-
 dent's knowledge of inorganic chemistry.
 Students will learn about bonding theories,
 nuclear chemistry, chemical periodicity, and
 metal and nonmetal chemistry. Prerequisite:
 CHM 2200. (3 hr. lecture)

CHS1522C
Forensic Science 1 **4 credits**
 An introductory course in the principles and
 techniques of forensic science. Students will
 learn how forensic science pertains to crime
 scene investigation and crime laboratory
 analysis. (3 hr. lecture)

CHS2311C
Analytical Chemical
Instrumentation **4 credits**
 An introduction to a variety of chemical
 instrumentation commonly employed in the
 chemical and pharmaceutical industries. The
 course will combine lecture and discussion
 with laboratory experiences to present the
 principles of instrumental analysis as well
 to provide extensive hands-on experience
 with instrumentation commonly used in the
 chemical and pharmaceutical industries. Pre/
 corequisites: CHM 2200, 2200L, 2120C or
 CHM 2210, 2210L, 2211, 2211L. Laboratory
 fee. (3 hr. lecture; 2 hr. lab)

CHS2523
Forensic Science 2 **3 credits**
 This is a continuation of Forensic Science
 1. Students will learn topics which include
 but are not limited to: drug identification
 and toxicology; document analysis; death
 determination; soil examination methodol-
 ogy; forensic anthropology; tool marks and
 casts/impressions. Prerequisite: CHS 1522C.
 (3 hr. lecture)

Chinese Language

CHI1120 Elementary Mandarin Chinese 1 4 credits

An integrated (multi-media) approach to acquire proficiency in the basic skills of Mandarin Chinese - listening/understanding, speaking, reading, writing, and cross-cultural awareness. Emphasis on practical vocabulary and accurate pronunciation. Practice in class and laboratory in understanding and using the spoken language; reading and writing with progressive grammatical explanations. (4 hr. lecture)

CHI1121 Elementary Mandarin Chinese 2 4 credits

A continuation of Mandarin Chinese 1120. A proficiency-oriented course emphasizing the mastery of the basic skills of the language. (4 hr. lecture)

Computer Science & Related Technologies

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 1332, or acceptable score on the Algebra Placement Test. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

CAP1760 Introduction to Analytics 4 credits

This course is designed for students who require or are interested in basic aspects of data mining and analytics using domain-specific data. Students learn the computerized techniques by which to organize, manipulate, report, present, depict and analyze domain-specific data in order to find or otherwise derive information. Prerequisites: CGS 1060 and use of a desktop database application, or equivalent experience. Prerequisite: CG1060. Laboratory fee. (3 hr. lecture; 2 hr. lab)

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 develop-

ment 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 2335. 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 development 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: DIG 2626 "Artificial Intelligence" and CAP 2047 "User Interface Design". Laboratory fee. (3 hr. lecture; 2 hr. lab)

CAP2761 Advanced Analytics 4 credits

This is an advanced course for students to review and expand the use and fundamentals of databases and database programming for implementing analytics. Students design data models and subsequently implement and use analytics and data mining techniques to derive information from domain-specific databases. The MySQL database engine and its SQL implementation will be used. Prerequisites: CAP 1760 and CIS 1321, or equivalent experience. Laboratory fee. (3 hr. lecture; 2 hr. lab)

CET1600 Networking Fundamentals 4 credits

This is the first course 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 addressing and network standards. Students will install, configure and operate simple-routed LAN, routed WAN and switched LAN and LANE networks. Prerequisites: CGS1060 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 adapters and pointing devices. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

CET1610 Router Technology 4 credits

This is the second course 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 suc-

cessfully 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 course 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 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; students will complete advanced network design projects, and advanced network management projects, WAN theory and design, WAN technology, PPP, Frame Relay, ISDN, network trouble shooting 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)

CGS1021 Scientific Computing 4 credits

This course explores the specialized features of common computer desktop applications as applied to biotechnology data. Through hands-on practical assignments, students will study and practice the computerized techniques by which to organize, manipulate, report, present, depict and analyze biomolecular data and information. Laboratory fee. Corequisite: STA 2023. (3 hr. lecture; 2 hr. lab)

CGS1060 Introduction to Microcomputer Usage 4 credits

This is an introductory level course that satisfies the College's computer competency requirement. Students will learn essential computer concepts and skills as well as knowledge of how to use current software applications. Topics include word processing, spreadsheets, database, presentation software, email, Internet, and legal and ethical issues concerning the use of computers and the Internet. Laboratory fee. (3 hr. lecture; 2 hr. lab)

CGS1081**Introduction of Computing for the Visually Impaired****4 credits**

This course is designed to provide students with an overview of access technology, experience using it with applications and a chance to explore the wide range of opportunities that computers can offer to people who are blind. It will cover, the components of the computer, access technology, screen reading software, disk operating systems. DOS versus Windows, WordPerfect for DOS, and accessible software, including shareware and freeware. Prerequisite: Departmental Approval. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

CGS1145**Introduction to Bioinformatics****4 credits**

This course introduces the basic concepts and techniques of Bioinformatics. Through research papers, hands-on projects and use of common computational programs, students will apply aspects of Information Technology and Computer Science in order to analyze biological/bimolecular/bioinformatics data. Laboratory fee. (3 hr. lecture; 2 hr. lab)

CGS1501**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. 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**A+ Computer Operating Systems****4 credits**

This is a comprehensive course in the use of operating systems for microcomputers suitable for students seeking preparation for A+ operating system certification. Students will learn how to install, configure, use, manage, and troubleshoot the Disk Operating System (DOS), Microsoft Windows, and other microcomputer operating systems. Prerequisite: CGS 1060 or computer experience is required. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

CGS1580**Desktop Publishing****4 credits**

A comprehensive course in the use of desktop publishing for microcomputers. The concepts, features, and commands of desktop publishing are applied to a variety of applications. Programming concepts will be introduced. Classes are conducted in a hands-on-lecture/laboratory where a microcomputer is available for each student. The content of this course will continually change to keep pace with current technology. CGS 1060 or computer experience is required. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

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 have experience with using computers and word processing. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab) hr. lecture; 2 hr. lab)

CGS2091**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)

CGS2108**Advanced Desktop Applications****4 credits**

This is an advanced level course for major and non-major students who have completed CGS 1060, Introduction to Microcomputer Usage. Students will learn advanced computer skills using software applications, such as word processing, spreadsheets, database, presentation graphics, and communications and scheduling software. Students will also learn advanced file management techniques, deal with security issues, and troubleshoot hardware and software. Prerequisite: CGS1060. A.S. degree credit only. Laboratory fee. (3 hr. lecture; 2 hr. lab)

CGS2172**Implementing a Commerce-Enabled 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 electronic commerce (e-commerce) sites. Prerequisites: COP 2333, Laboratory fee. A.S. degree credit only. (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)

CIS1321**Introduction to Systems Analysis and Design****4 credits**

This course introduces computer science and non-majors to fundamental skills of analysis and design of management information systems. Students learn the concept of charting, investigating, documenting and reporting using current information systems, system analysis tools and system design tools. The related concept of management, organization, computers, information processing and the system approach are combined and applied to case studies. Prerequisites: CGS 1060. Knowledge of business accounting is recommended. Laboratory fee. (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)

CIS2322**Systems Analysis and Design Implementation****4 credits**

This course is designed for students majoring in computer programming. Students build on the concepts learned in CIS 1321 by applying detailed design and analysis techniques to implementing an information system. Students will learn to synthesize concepts of management, organization, computers, information processing, and the system approach to analyze case studies. Prerequisites: CGS 1060 and CIS1321. Knowledge of business accounting is recommended. Laboratory fee. AS 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)

CNT1512**Introduction to****Wireless Networking****4 credits**

This course provides the student with a complete foundation of knowledge for entering into or advancing in the wireless networking industry. Topics include: an introduction to wireless LANs; RF theory; spread spectrum technologies; wireless LAN infrastructure devices; antennas and accessories; wireless LAN standards; and wireless LAN organizations to link budget math, troubleshooting, and performing a site survey. This course delivers hands-on training that benefits the novice as well as the experienced network professional. Prerequisites: CGS 1060 and CTS 1134. Laboratory fee. (3 hr. lecture; 2 hr. lab)

COP1332**Introduction to Visual****Basic Programming****4 credits**

This course introduces computer science and non-major students to fundamental programming skills using the Visual Basic Integrated Development environment. Students learn program design, the fundamentals of event driven object-oriented programming, arrays, validation of user input, and how to create menu driven programs and multiple form applications. This course may be taken by those not majoring in Computer Information Systems. Knowledge of high school algebra is recommended. Laboratory fee. (3 hr. lecture; 2 hr. lab)

COP1334**Introduction to Object****Oriented Programming C++****4 credits**

This is an introductory course in C++ programming recommended for Computer Science and Computer Information Systems majors. Students learn the syntax and rules of the C++ language, including how to code, compile, and execute programs. Students study program design, structured modular programming arrays, report generation, and file processing. No previous computer courses are required although CGS 1060 is recommended. Laboratory fee. (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. 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)

COP2180**PERL Programming****4 credits**

This course provides a practical introduction to PERL programming for the biol-

ogy/bioinformatics student. Through lectures, real-world examples and extensive hands-on assignments, the student will acquire an understanding of the PERL syntax and use it to create and execute PERL modules that solve common bioinformatics programming demands. Special fee. Prerequisites: CGS1145, CIS 1321. (3 hr. lecture; 2 hr. lab)

COP2333**Advanced Programming****Concepts Using Visual Basic****4 credits**

This course provides Microsoft Visual Basic® developers with the knowledge and skills needed to develop Microsoft .Net-based applications using Visual Basic.NET. Students use advanced programming and object oriented tools to create enterprise applications for the .NET Platform and to create more traditional Visual Basic applications that take advantage of the enhancements to the language. Prerequisite: COP1332. Laboratory fee. (3 hr. lecture; 2 hr. lab)

COP2335**Advanced Object Oriented****Programming using C++****4 credits**

This course presents advanced topics and applications of programming logic, C++ syntax, and the object-oriented approach to problem solving. Students will learn how to design, code, compile, debug, and execute Windows-based applications programs using the Windows API and Microsoft Foundation Classes (MFC). Students will learn how to apply overloading operators, inheritance, advanced sorting techniques, advanced data manipulation, and data structures. Students explore the design and use of the Open Database Connectivity (ODBC) specification. Prerequisites: CGS 1060, COP 1334. Knowledge of high school algebra is recommended. Laboratory fee. (3 hr. lecture; 4 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, multiuser functionality, communications and establishing interfaces. Prerequisites: CGS 1060, COP 1332, and COP1334. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

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)

COP2800**Java Programming 4 credits**

This is an intermediate level programming course using the Java computer language, recommended for Computer Science and Computer Information systems majors. Students will learn to code, compile, and execute programs while learning advanced programming concepts and object oriented programming and design concepts and principles. Prerequisite: COP 1334. Laboratory fee. (3 hr. lecture; 2 hr. lab)

COP2805**Advanced Java Programming 4 credits**

This is an advanced level programming course using Java. Students will be required to code. Compile and execute programs. Topics include applets, exception handling, multimedia mechanisms, multithreading and networking capabilities, and advanced Internet technologies in multi-tiered web environments accessing databases. Prerequisites: COP 2800. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

COP2812**Extensible Markup Language Programming (XML) 4 credits**

The prospective e-commerce professional will learn the skills necessary to create applications using XML technologies. Building, maintaining, and implementing these applications allow the student an opportunity to create business-to-business web applications that solve everyday business problems. Prerequisites: CGS 1060, COP 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 1332, 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)

COP2842**Developing Websites Using PHP/MYSQL 4 credits**

This course will teach students to develop dynamic, interactive web sites using PHP5-an open source programming language -and MySQL database. Prerequisites: COP 1822 or

COP 1334 or COP 1332. Laboratory fee. (3 hr. lecture; 2 hr. lab)

COP2843**Implementing Open-Source Databases 4 credits**

This course is an introduction to open-source database programming for students majoring in database and internet technologies. Students will learn to use and implement MYSQL for the purpose of storing and retrieving information from the MYSQL database. In conjunction with knowledge of open-source technologies such as Linux, Apache and PHP (LAMP), students will develop highly available, dynamic, web-based applications. Prerequisite: CGS 1060. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

CTS1101**Introduction to Windows 2 credits**

Introduction to the Microsoft windows(TM) graphical user interface. Emphasis is on windowing concepts, as well as learning how to run application programs and windows utilities, manage files, and transfer data. Students are shown how to combine different applications to use the full power of a desktop environment. Classes are conducted in a hands-on classroom, with lectures and lab combined. Lab fee. A.S. degree credit only. (1 hr. lecture; 2 hr. lab)

CTS1111**Linux + 4 credits**

This course is designed to help students prepare for the CompTIA Linux+ Certification Exam and to teach the skills needed to administer GNU/Linux-based work-stations and servers. Students learn how to plan, install, maintain, document, and troubleshoot GNU/Linux operating system services. Prerequisite: CGS 1060 or computer experience is required. Special fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

CTS1120**Fundamentals of Networking Security 4 credits**

This course provides the student with a complete foundation of knowledge for entering into or advancing in the information technology security field. Topics include: an introduction to general security concepts; communication security; infrastructure security; basic cryptography; operational and organizational security. Including topics from troubleshooting to performing a site survey, this course delivers hands on training that benefits the novice as well as the experienced network professional. Prerequisites: CTS 2306. Laboratory fee. (3 hr. lecture; 2 hr. lab)

CTS1131**A+ Computer Essentials & Support 4 credits**

This is an intermediate level course designed for students preparing for A+ certification as a support technician. Students will learn how to install, configure, upgrade and replace computer system components; how to troubleshoot operating systems, laptops, portable devices, printers, scanners, network devices

and security measures; and how to provide professional IT support and customer service. Prerequisite: CGS 1560. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

CTS1134**Networking Technologies 4 credits**

This course will provide an introduction to the technical areas of network connectivity, data communications, and communication protocols. Emphasis on understanding the foundation of networking technologies and data communication concepts. Topics covered will include an exploration of computer networking development, the OSI reference model, data signaling, data translation, standards for communications and data transmissions, network topologies and access methods. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

CTS1155**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 lecture, demonstration and an emphasis on practical, intensive laboratory activities. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

CTS1328**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, online assignments, and hands-on labs are used. Prerequisites: CGS 1060, CTS 1134. Laboratory fee. (3 hr. lecture; 2 hr. lab)

CTS1334**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, online assignments, and hands-on labs are used. Prerequisites: CGS 1060, CTS 1134; corequisite CTS 1328. Laboratory fee. (3 hr. lecture; 2 hr. lab)

CTS1800**Introduction to Web Page Development****4 credits**

This introductory course covers the basics of web design and development. Students will learn about the World Wide Web., Hypertext Markup language (HTML), Extensible Hypertext Markup Language (XHTML), Cascading Style Sheets (CSS) and JavaScript using popular web authoring tools such as Dreamweaver. Students will also learn the basic functions of HTML, XHTML, CSS and JavaScript and how to develop and maintain a website. Prerequisite: CGS 1060. Laboratory fee. A.S. degree credit only. (3 hr. lecture)

CTS2125**Hardening the Infrastructure****4 credits**

The 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 Hardenit the infrastructure certification exam. May be repeated up to three (3) times with different versions of the software when there have been substantial or significant version changes. Pre/corequisite: CTS 1120 may be waived for individuals with current Security + certification or equivalent experience. (3 hr. lecture; 2 hr. lab)

CTS2153**Supporting Windows Users & Applications****4 credits**

This is an advanced course designed to help students prepare for the Microsoft Certified IT Professional Support Technician Certification. Students will learn how to install, configure and manage Windows applications in a networked Windows environment and how to support enterprise users. Students will also deploy Windows and applications using various methods, resolve installation and compatibility issues, establish group policies and user profiles, perform support functions, troubleshoot user and application issues, secure the desktop and network from unauthorized use, install software upgrades and updates, perform systems monitoring and documentation, and develop customer service skills. Prerequisite: CTS 1328. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

CTS2154**IT Help Desk Support****4 credits**

This course is designed to prepare students as entry-level help desk computer support technicians. Students will learn skills needed to support computer users within the business organization and to provide exceptional customer service, including how to identify the appropriate tools, technologies, and processes to assess and meet computer user needs, essential communications skills, the

IT function within the business organization, and career opportunities in computer user support. Prerequisites: CGS 1060, CGS 2108. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

CTS2215**PowerPoint/Outlook****4 credits**

The student will be provided the opportunity to develop the skills necessary to prepare for the core level Microsoft Office User Specialist (MOUS) Certification exam in MS PowerPoint and MS Outlook. Prerequisite: CGS 1060. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

CTS2300**Planning Network Infrastructure****4 credits**

This course provides the information and skills necessary to successfully plan and maintain a Microsoft server operating system network infrastructure. The course focuses on: planning TCP/IP physical and logical network; planning and 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: CTS 2303. Laboratory fee. (3 hr. lecture; 2 hr. lab)

CTS2302**Designing Network Infrastructure and Directory Services****4 credits**

This course provides the information and skills necessary to successfully design a Microsoft server Active Directory and network infrastructure. The course focuses on the Microsoft server directory service environment, including meeting the needs of an organization for their: forest and domain infrastructure: site infrastructure; Group Policy structure; administrative structure; physical network; DHCP; network connectivity; name resolution strategy; and network access infrastructure strategies. Prerequisite: CTS 2303. Laboratory fee. (3 hr. lecture; 2 hr. lab)

CTS2303**Implementing Directory Services****4 credits**

This course 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, and user, group and computer account strategies. Prerequisite: CTS 1334. Laboratory fee. (3hr. lecture; 2 hr. lab)

CTS2306**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: CTS 1334. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

CTS2310**Design, Implement, Manage Network Security****4 credits**

This course provides the information and skills necessary to design, implement, manage, maintain, and troubleshoot security in a Microsoft Windows Server network infrastructure. It is intended for students preparing to be IT systems engineers and security specialists who are responsible for implementing and managing security policies and procedures for an organization. Prepares students for the MCSE Security specialization. Pre/corequisite: CTS 2306; may be waived for individuals with current MCSA certification or equivalent experience. Laboratory fee. (3 hr. lecture; 2 hr. lab)

CTS2314**Network Defense and Countermeasures****4 credits**

Students explore concepts of network defenses and countermeasures. Topics covered include the fundamentals of defending networks, layered defense, defense-in-depth strategies, the design and implementation for 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 (3) 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)

CTS2320**Managing a Windows Networking Environment****4 credits**

This course will provide the knowledge required by System and Network Administrators who implement, manage and troubleshoot existing network and server environments based on the Microsoft Windows network operating system. This course focuses on performing desktop and server installation and configuration tasks, how to perform troubleshooting tasks, hardware and software installations, configurations and upgrades, and perform network and system operation tasks. Typical network services and resources that would be managed include messaging, database, file and print servers, proxy server of firewall, Internet and intranet, remote access, and client computer management. Prerequisite: CTS 2306. Laboratory fee. (3 hr. lecture; 2 hr. lab)

CTS2331**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: CTS 2303. Laboratory fee. (3 hr. lecture; 2 hr. lab)

CTS2404**Distributed Applications with Visual Basic****4 credits**

This course will teach Microsoft Visual Basic programmers how to build N-tier client/server solutions for Microsoft Windows using Windows DNA and COM+ technologies. It includes developing distributed applications that conform to the Microsoft Solution Framework, and is designed to teach Visual Basic programmers, who currently develop desktop applications, how to build n-tier, client/server solutions. Also it will prepare students to take Microsoft's Certification Exam for Distributed Applications with Microsoft Visual Basic; it is a required course for MCSD and elective for MCDBA. Prerequisites: COP 2333. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

CTS2440**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)

CTS2441**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)

CTS2442**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)

CTS2444**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)

CTS2445**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)

CTS2446**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)

CTS2447**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)

CTS2448**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) environment, 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)

CTS2463**C# Web Application****Development****4 credits**

This course is designed to provide AS degree students majoring in computer information technology, database technology, or Internet services technology with skills necessary for web-based programming. Students will learn C# programming for ASP.NET, including database skills and problem-solving, using modular design techniques. The skills developed in this class will help prepare students for MCTS certification. Prerequisites: COP 1332 or COP 1334. Laboratory fee. AS 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 architectures for their solution, 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. Select solution technologies and architecture based on a tradeoff analysis. Address the issues involved in designing a user interface. Produce a baseline functional specification that can be used to develop a business solution. Prerequisite: COP 2333. Laboratory fee. A.S. degree credit only. (3 hr. lecture; 2 hr. lab)

DIG1705**3D Programming 1****4 credits**

This course provides the student 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. Prerequisites: DIG 1712, 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, topics covered are: 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 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 and learn to create levels for existing games. Students will also learn what is required to create level building and design tools for level designers. They will create new levels for existing games, using game development tools for designing and building game levels. Prerequisites: 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, hierarchy 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 1334 pre/corequisite: COP 2335. 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: DIG 1705. pre/corequisite: COP 2334. (3 hr. lecture; 2 hr. lab)

Criminal Justice & Related Technologies

CCJ1010**Introduction to Criminology****3 credits**

Theories and causes of criminal and delinquent behavior, including its variations, ramifications, explanations and measures of prevention, control and treatment. (3 hr. lecture)

CCJ1020**Introduction to****Criminal Justice****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)

CCJ1949**Co-op Work****Experience 1:CCJ****3 credits**

This is a course designed to provide training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-op Department approval. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval. (3 hr. lecture)

CCJ2053**Criminal Justice Ethics and Professionalism****3 credits**

This course will provide students with an overview of moral, ethical, and professional issues and dilemmas facing individuals and organizations within the criminal justice system. Students will learn to define and implement ethical and professional standards by examining what they will be confronted with and how to respond appropriately. Prerequisite: PHI 2604. (3 hr. lecture)

CCJ2650**Narcotics and****Dangerous Substances****3 credits**

The general problems created by illegal use of narcotics and dangerous substances, with emphasis upon classification, description and history of drugs, etiology of addiction, extent of drug use and its relationship to criminal behavior and methods of control. (3 hr. lecture)

CCJ2940**Administration of Justice****Field Service Program****3 credits**

Provides supervised observation and participation in agencies involved in the administration of justice. This course bridges the gap between theory and practice. Prerequisite: to be arranged by/with the instructor. (3 hr. lecture; plus field experience)

CCJ2949**Co-op Work****Experience 2: CCJ****3 credits**

This is a course designed to continue training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-op Work Experience. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval. (3 hr. lecture)

CCJ3032**Crime and the Media****3 credits**

An examination of the inter-relationship among the mass media, crime, and criminal justice. Includes media and the social construction of crime and criminal justice; media effects on attitudes toward crime and justice; and media as a cause of crime. Prerequisite: SYG 2000. (3 hr. lecture)

CCJ3663**Female Crime and Delinquency****3 credits**

A study of females in society and the criminal justice system. Includes the female delinquent, females as criminals, females as victims, and the impact of females as professionals in the Criminal Justice System. Prerequisites: CCJ 1191, 2500. (3 hr. lecture)

CCJ3666**Victimology****3 credits**

A comprehensive study of victimization; analysis of contemporary victim-assistance and victim compensation programs and related research; review of the historical importance of victim restitution as a basis for punitive criminal law. Prerequisite: CCJ 1191. (3 hr. lecture)

CCJ3700**Methods of Research in Criminal Justice****3 credits**

Evaluates the application of research methodologies as applied to the study of Public Safety Management. Prerequisite: STA 2023. (3 hr. lecture)

CCJ4054**Ethics in the Criminal Justice System****3 credits**

An in depth study of moral, ethical, legal, and professional issues and dilemmas facing individuals and organizations within the Criminal Justice systems. Prerequisite: PHI 2604. (3 hr. lecture)

CCJ4450**Criminal Justice Administration****3 credits**

An analysis of leadership styles, management principles, supervisory techniques, policies and procedures within Law Enforcement agencies. Prerequisite: CCJ 1020. (3 hr. lecture)

CCJ4641**Organized Crime****3 credits**

An analysis of organized crime in today's society, as well as, past, present, and future perspectives of the topic. (3 hr. lecture)

CCJ4651**Drugs and Crime****3 credits**

An analysis of the interrelationship among drug usage, crime and the criminal justice system. Prerequisite: CCJ 2650. (3 hr. lecture)

CCJ4660**Crime, Violence, and Schools****3 credits**

An examination of comprehensive and proven theoretical models of explaining, predicting, and preventing school-based violence. Prerequisite: CCJ 1191, CJJ 2002. (3 hr. lecture)

CCJ4678**Race, Gender, Ethnicity & Crime****3 credits**

Focuses on the challenges and controversies of managing and treating special offender

populations such as juvenile, elderly, disabled, mentally ill, pregnant inmates, etc. Prerequisite: CCJ 1191. (3 hr. lecture)

CCJ4941**Internship Program - Field Placement****15 credits**

Students will gain field placement experience in a local, state, federal, or private sector public safety agency. (240 hr. Internship)

CCJ4942**Internship Program - Basic Police Academy****15 credits**

Students will participate in the FDLE state-mandated certification training program in law enforcement. (240 hr. Internship)

CCJ4943**Internship Program - Basic Corrections Academy****15 credits**

Students will participate in the FDLE State-Mandated Certification Training Program in Corrections. (240 hr. Internship)

CJC1000**Introduction to Corrections****3 credits**

A comprehensive view of the historical and philosophical treatment programs and developments in the field of juvenile and adult corrections. Emphasis is on understanding the offender in the correctional system; an examination of the correctional client, the noninstitutional correctional systems, agencies and recidivism. (3 hr. lecture)

CJC1005**Operations & Procedures in Correctional Institutions****3 credits**

A basic survey of the operational routines that prevail in correctional facilities and the procedures used by officers in upholding these routines. The focus is on the preliminary knowledge needed by correctional officers before they can acquire the skills and techniques to perform job-related tasks. A.S. degree credit only. (3 hr. lecture)

CJC1162**Parole and Probation****3 credits**

The history, current practices and the consideration of philosophical concepts in the areas of probation and parole. (3 hr. lecture)

CJC2350**Correctional Operations****3 credits**

The operation of correctional facilities is studied including the intake of new inmates, all aspects of their daily care, and institutional procedures. This course is limited to School of Justice students only. (3 hr. lecture)

CJC2351**Interpersonal Skills for Correctional Officers****3 credits**

The interpersonal skills needed by officers to understand the incarcerated society is explored, with emphasis on supervision methods. Inmate adjustment and the various segments of inmate society are studied. This course is limited to School of Justice students only. (3 hr. lecture)

CJC4163**Advanced Probation & Parole****3 credits**

A study of the process in which a convicted person can be released into society by means of probation or parole. Prerequisite: CJC 1162. (3 hr. lecture)

CJC4310**Correctional Theory****3 credits**

An analysis of corrections relative to punishment and rehabilitation strategies utilized at penal institutions throughout the United States. Prerequisite: CJC 1000. (3 hr. Lecture)

CJC4311**Contemporary Issues and Trends in Corrections****3 credits**

Focuses on and analyzes of major changes in incarceration philosophies and policies, prison populations, and operational costs. Prerequisite: CJC 1000. (3 hr. Lecture)

CJC4351**Correctional Operations****3 credits**

Focuses on challenges the correctional staff faces in their critical role in the day-to-day operations of a correctional facility. Prerequisite: CJC 1000. (3 hr. lecture)

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)

CJE1567**First Responder for Public Safety Officers****3 credits**

Provides training in emergency medical care for public safety officers who are apt to be the first persons responding to an accident or crime of violence. The focus is on the specific emergency situations a public safety officer is likely to confront, and the role of the public safety officer within the community's emergency medical service system. (3 hr. lecture)

CJE1640**Crime Scene Technology 1****3 credits**

This is an introductory course in Crime Scene Technology. Students will learn the techniques, materials and instrumentation used in securing, searching, recording, collecting, and examining physical evidence. There will be special emphasis on the tools, instruments, and techniques used in the studies of crime scene reconstruction, fingerprints, firearms, tool marks, and blood stain pattern analysis. (3 hr. lecture)

CJE1642**Crime Scene Technology 2****3 credits**

This course covers advanced principles, theories and applications in crime scene technology. Students will learn specialized collection procedures of weapons, arson, gunshot residue, blood spatter, and recovery of buried bodies and surface skeletons are also included. Data analysis, reporting and plan of action development are emphasized. Prerequisite: CJE 1110. (3 hr. lecture)

CJE1673**Crime Scene****Photography 1 3 credits**

This is an introductory study of the history of photography including basic photography skills. Students will learn camera operations, exposure control, relational photographs and flash control for crime scene and evidentiary documentation. (3 hr. lecture)

CJE1772**Crime Scene****Photography 2 3 credits**

This course expands upon concepts; knowledge and skills taught in Crime Scene Photography 1. Students will learn to include specialty light sources, darkroom techniques and procedures, filters and specialized equipment including black and white and color enlargers. Prerequisite: CJE 1220. (3 hr. lecture)

CJE1801**Defensive Tactics Skills for****Criminal Justice Practitioners 3 credits**

Training of officers in the rationale and methodology of taking people into custody, searching subjects, using restraint devices, and utilizing the proper techniques and amount of force. For Institute of Criminal Justice students only. (1 hr. lecture; 4 hr. lab)

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)

CJE2304**Police-Correction****Supervision 3 credits**

An introduction to basic theory pertaining to supervisory responsibilities and assignments. Practical application will be demonstrated through the case-study method. (3 hr. lecture)

CJE2306**Police Mid-Management****3 credits**

A follow-up to the supervision course. Enhancement of managerial awareness 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)

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)

CJE2452**Criminal Justice****Communications 3 credits**

The report writing process from the interview, statement taking and note taking, through the final report product is covered, with practical exercises included. The differences between interviewing and interrogating are explored. Interpersonal communication skills are covered, along with radio and telephone procedures. Objectives are addressed as specified by the Criminal Justice Standards and Training Commission. Prerequisite: ENC 1101. (3 hr. lecture)

CJE2550**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)

CJE2552**Law Enforcement Traffic****3 credits**

Studies traffic enforcement and control with the inclusion of DUI offenses and enforcement. This course is limited to School of Justice students only. (3 hr. lecture)

CJE2590**Law Enforcement Patrol****3 credits**

Theories, history, and development of police patrol are explored. Also addressed are the skills and techniques that are needed by officers on a daily basis to perform patrol tactics and respond to various types of calls. Methods of approach to various high-risk situations are explored, with practical exercises included. Unusual occurrence events, including firefighting and crowd control, are also addressed. This course is limited to School of Justice students only. (3 hr. lecture)

CJE2600**Criminal Investigation****3 credits**

Fundamentals of criminal investigation, theory and practice, including crime scene search; preservation, collection and transportation of physical evidence interviewing, interrogating; statement taking; and case preparation, with investigation of specific offenses; relationship with the police science laboratory. (3 hr. lecture)

CJE2601**Law Enforcement****Investigations for****Police Officers 3 credits**

Fundamentals of criminal investigation, theory and practice, including crime scene search,

preservation, collection and transportation of physical evidence are topics included in this course. Techniques are developed from the initial observation methods through the processing of the crime scene and case preparation. Florida's computer network is studied as an information source. This course is limited to School of Justice Basic Law Enforcement students only. (3 hr. lecture)

CJE2644**Crime Scene Safety****3 credits**

This course provides the fundamentals of protecting and preserving the crime scene and identifies the essential techniques of properly handling physical evidence. Students will learn the understanding of various hazards and safety issues and provides basic techniques for preserving evidence as it relates to various hazardous chemical and biological materials. (3 hr. lecture)

CJE2671**Basic Fingerprinting****3 credits**

This course provides a foundation in basic fingerprinting. Students will learn topics which include classification, identification, filing and rolling of fingerprints, problems and practices associated with post mortem fingerprinting and proper presentation of fingerprint evidence. (3 hr. lecture)

CJE2672**Fingerprint Development****3 credits**

This course provides a continuation of CJE 2240 Basic Fingerprinting. Students will learn different methods involved in detection, enhancement, and recovery of latent fingerprints. Techniques will involve chemical and mechanical methods on substrates and evaluation for proper application in both theory and practices. Prerequisite: CJT 2240. (3 hr. lecture)

CJE3110**Law Enforcement Systems****3 credits**

An analysis of the different law enforcement systems in Criminal Justice. Focuses on the different law agencies and their mission at the local, state, and federal levels. Prerequisite: CCJ 1020. (3 hr. lecture)

CJE3115**Police and Society****3 credits**

Identifies police roles and philosophies, the nature of police work, community policing, and the debates pertaining to police discretion, community relations, and police misconduct. (3 hr. lecture)

CJE3444**Crime Prevention****3 credits**

Provides students with strategies of how to develop, implement and maintain a crime prevention program. Includes the history of crime prevention, homeland security programs, public speaking, media relations, crime against the elderly, sexual assault programs, youth crime prevention, and telemarketing fraud and scams. Prerequisite: SPC 1017. (3 hr. lecture)

CJE3574

Interpersonal Communications for Law Enforcement 3 credits
An examination of the communication process and how it affects the relationship between the police and the people they serve. Prerequisite: CCJ 1191, SPC 1017. (3 hr. lecture)

CJE4310

Police Administration 3 credits
An analysis of corrections relative to punishment and rehabilitation strategies utilized at penal institutions throughout the United States. Prerequisite: CJC 1000. (3 hr. lecture)

CJE4615

Advanced Criminal Investigations 3 credits
The understanding, interpretation, and application of criminal investigative procedures in the U.S., based upon constitutional issues and legal precedent. Prerequisite: CJE 2600. (3 hr. lecture)

CJE4647

Advanced Crime Scene Technology 3 credits
An application of crime scene investigation techniques to include recording, preserving, and documenting a crime scene. Prerequisite: CJE 2600. (3 hr. lecture)

CJE4648

Crime Scene Safety 3 credits
A study of how to properly handle crime scenes and hazardous crime scenes relative to various hazardous materials, to include chemical and biological. (3 hr. lecture)

CJE4650

Advanced Crime Scene Investigations 3 credits
A study of advanced search techniques, crime scenes reconstruction, computer sketching, laser mapping, DNA evidence, trajectory, and blood spatter evidence. Corequisite: CJE 4675. (3 hr. lecture)

CJE4668

Computer Crime 3 credits
Synthesizes knowledge of crime elements, legal issues, investigative techniques, and computer skills used in the prevention and investigation of computer-generated crime. Prerequisite: CGS 1060. (3 hr. lecture)

CJE4675

Modern Fingerprint Technology 3 credits
A study of the detection, preservation, and removal of fingerprint evidence pertaining to latent, patent, and plastic prints. Prerequisite: CJE 2600, Corequisite: CJE 4641. (3 hr. lecture)

CJJ2002

Juvenile Delinquency 3 credits
An analysis of the theories and causes of juvenile delinquent behavior. The role of the three components of the juvenile justice system (Police, Court, Corrections) and their impact on prevention and rehabilitation. (3 hr. lecture)

CJL1100

Criminal Law 3 credits
Historical background and foundations of American criminal law, including United States Constitutional requirements, Federal and State court organization and jurisdiction, criminal law basics, Florida statutes, rules of evidence and procedure. (3 hr. lecture)

CJL2001

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)

CJL2062

Constitutional Law and Legal Procedure or Evidence 3 credits
An examination of the United States and Florida Constitutions, with emphasis on leading cases dealing with arrest, search and seizure, confessions and the rules of evidence. (3 hr. lecture)

CJL2080

Comparative Legal Systems 3 credits
An introduction and comparative study of English and American systems of criminal justice, with particular reference to the protection of the liberty of the individual. Overview of legal systems of other nations, selected to afford a comparative perspective on the Anglo-American tradition. Offered through Overseas Study Program. (3 hr. lecture)

CJL2100

Criminal Procedure & Evidence 1 3 credits
This course explores the history, principles and applications of criminal law procedures for criminal justice officers. This course is limited to the school of justice students only. (3 hr. lecture)

CJL2104

Legal 3 for Law Enforcement Officers 2 credits
This legal segment of study includes traffic and driver's licensing laws, as well as legal considerations of officer vehicle operation. Various criminal laws and their elements are studied with an emphasis placed on those laws specific to police application. This course is limited to School of Justice students. (2 hr. lecture)

CJL2130

Criminal Procedure and Evidence 3 credits
Criminal Procedure and Evidence as they relate to the law enforcement profession will be examined. Constitutional provisions applicable to arrest, search and seizure, and interrogation will be covered. In addition, evidentiary principles will be taught emphasizing those provisions applicable to law enforcement. (3 hr. lecture)

CJL3044

Civil Law 3 credits
A study of civil liability for damages caused by breach of an imposed duty, which includes

intentional torts, negligence, strict liability, product liability, civil nuisance, defamation, civil wrongful invasion of privacy, and damages. Prerequisite: CJL 1100. (3 hr. lecture)

CJL3564

Judicial Policy Making 3 credits
An analysis of the components, policies, and procedures of the court structure of the United States and various components. An analysis of local, state, and federal courts in the Criminal Justice System. Prerequisite: CCJ1010. (3 hr. Lecture)

CJL4064

Corrections Administration & Law 3 credits
An overall view of the nature, philosophy, operations and goals of secure and non-secure correctional institutions and programs. Prerequisite: CJC 1000. (3 hr. lecture)

CJL4133

Criminal Evidence 3 credits
A study of evidentiary principles and rules of evidence, and their application in a courtroom setting. Prerequisite CJL 1100. (3 hr. lecture)

CJL4170

Corrections Legal System 3 credits
An analysis of contemporary legal decisions regarding the rights and responsibilities of prisoners, correctional administrators, and correctional officers. Prerequisite CJL1100. (3 hr. lecture)

CJL4514

Criminal Sentencing 3 credits
An examination of the various pre-trial and post-trial community based treatment and supervision programs. Prerequisite: CJC 1162. (3 hr. lecture)

CJT2113

Courtroom Presentation 3 credits
This course introduces students to proper courtroom presentation and procedures. Students will learn the appropriate techniques for proper attire, grooming, speaking, listening and stress control during courtroom proceedings, visual aid preparation, and presentations of all evidence (commonly referred to as "scientific evidence") collected at the crime scene are also included. (3 hr. lecture)

DSC4012

Terrorism 3 credits
A study of domestic and international terrorism, using current events and past incidents for analysis, to include the events, the responses, and the outcomes. Prerequisite: CCJ 1020. (3 hr. lecture)

DSC4014

Domestic & International Terrorism 3 credits
A study of the causes and effects of domestic and international terrorist events. Prerequisite: DSC 4012. (3 hr. lecture)

DSC4214**Catastrophic Event****Response Management 3 credits**

An analysis and evaluation of domestic and international terrorism, the events, the responses, and the outcomes. (3 hr. lecture)

DSC4215**Emergency Planning & Security Measures****3 credits**

A study of empirical vs theoretical approaches; human behavior in disasters; myths and realities; group disaster behavior; community social systems, and disaster; cultures, demographics and disaster behavior distinctions; and model-building in sociological disaster research. Corequisite: DSC 4214. (3 hr. lecture)

FES4003**Public Policy in****Emergency Management****3 credits**

An exploration of public policy used in emergency management, including how policy is made and conveyed. (3 hr. lecture)

FES4823**Integrated Emergency Management****Planning Systems****3 credits**

An analysis of technology applications and its role in emergency planning, responses, recovery, and mitigation. Prerequisite: CGS 1060. (3 hr. lecture)

SCC4111**Special Security Problems****3 credits**

A study of executive level security measures pertaining to dignitary protection, client confidentiality, and legal issues. (3 hr. lecture)

SCC4210**Private Investigations****3 credits**

An analysis and interpretation of the role of the private investigator within the legal environment. Prerequisite: CJE 4615. (3 hr. lecture)

SCC4311**Security Administration****3 credits**

An analysis and evaluation of leadership styles best suited for success in the field of security. Prerequisite: CCJ 1020. (3 hr. lecture)

SCC4410**Risk Management****3 credits**

A study of risk management theories as it pertains to insurance coverage, facility assessment, as well as employee and pre-employment background investigations. Corequisite: SCC 4311. (3 hr. lecture)

SCC4612**Hospital****Security Management****3 credits**

An analysis of hospital organizational structure, environment, personnel, visitors, and the requirements of regulatory agencies within the security area. (3 hr. lecture)

Dance**DAA1100****Modern Dance 1 2-3 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 Theatre students will be receiving a systematic training of the body through a progressive study of the traditional classic ballet vocabulary. Stress is on placement, flexibility and coordination. (2-6 hr. lab)

DAA1291**Ballet for the****Theater 2****1-3 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 the dance from Africa and the Caribbean. Special fee. (1 hr. lecture; 2-4 hr. lab)

DAA1500**Jazz Dance 1****2-3 variable credits**

Designed to provide experiences in the styles of the 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)

DAA1680**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)

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 principles of form and their application to dance composition will be emphasized. Prerequisite: DAA 1104 or permission of the department. Dance Majors only. (1 hr. lecture; 2-4 hr. lab)

DAA2107**Advanced****Modern 2****2-3 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 & Practices in****Social, Folk & 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, balanced 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)

DAA2509**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 styles of Jack Cole, Gus Giordano and Luigi. Prerequisite: DAA 1501 or permission of department. (1 hr. lecture; 2-4 hr. lecture)

DAA2570**Modern Dance****for Theater 1****1-3 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 theatre students will continue receiving training of the body through the study of modern dance vocabulary. In the second semester emphasis will be on developing carriage, rhythm and more advanced phrasing through jazz techniques and styles. Prerequisite: DAA 2570. (2-6 hr. lab)

DAA2610**Dance Composition and****Improvisation 1** 2-3 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)

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. Gordon Rule Assigned. (3 hr. lecture)

DAN2131

Dance History 2 3 credits
Examine the dance through the ages from the Stone Age participatory dances to the spectator dances of the Orient, the Classical period in Greece and Rome and the Early Middle Ages. Concluding with the historical development of dance forms from the late Middle Ages through the Renaissance into the 20th Century. Emphasis is on the dance as a spectator event and a participatory art in relationship to other arts forms. Prerequisite: DAN 2130. (3 hr. lecture)

DAN2430

Laban Movement Analysis 1 3 credits
An introduction to Rudolf Laban's basic principles of effort, shape and space harmony. The class will explore ways of varying movement dynamics, and will assist the student in discovering the many ways that the body can shape itself and project into space. Prerequisite: Permission of department chairperson. (3 hr. lecture)

DAN2431

Laban Movement Analysis 2 3 credits
A further study of Laban's basic principles, this course provides insights into one's personal movement style and increases awareness of what movement communicates and expresses. Prerequisite: DAN 2430 or permission of department chairperson. (3 hr. lecture)

DAN2630

Literature & Materials of Music for Dance 1 2-3 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 & 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)

DEH1133

Dental Anatomy, Histology and Physiology 2 credits
Specific tissues of the oral cavity, head, neck and their embryonic development. The structure, morphology and function of the primary and permanent dentitions is also discussed. Corequisite: DEH 1002L. (2 hr. lecture)

DEH1133L

Dental Anatomy Laboratory 1 credit
This course is designed to allow the dental hygiene student the opportunity to perform laboratory exercises which will enhance the study of dental anatomy, histology, and embryology. Prerequisite: DEH 1133. Laboratory fee. (2 hr. lab)

DEH1400

General and Oral Pathology 3 credits
Processes of inflammation, necrosis, retrograde changes, diseases caused by bacteria, viruses, and other organisms. Emphasis will be placed on differentiating between normal and abnormal conditions of the oral cavity. Prerequisite: DEH 1130, DES 1200. (3 hr. lecture)

DEH1720

Preventative Dentistry 2 credits
This is a foundation course in dental hygiene preventive care. Students will learn the concepts of oral health and how to prevent

future disease. Students will become engaged in developing their own prevention strategies by selecting with a rationale, appropriate oral health devices used for self-care. A.S. degree only. (2 hr. lecture)

DEH1800

Dental Hygiene 1 2 credits
Theory of the removal of hard and soft deposits from the teeth, and other related postoperative and preventive procedures. Prerequisites: DEH 1002, 1002L, 1130; corequisite: DEH 1800L. (2 hr. lecture)

DEH1800L

Dental Hygiene 1 Clinic 3 credits
Clinic for DEH 1800. Corequisite: DEH 1800. Laboratory fee. Prerequisite: DEH 1002, 1002L; corequisite: DEH 1800. Laboratory fee. (9 hr. clinic)

DEH1802L

Dental Hygiene 2 Clinic 1 credit
Continuation of clinical skills from DEH 1800L. Prerequisites: DEH 1800, 1800L. Laboratory fee. (4 hr. clinic)

DEH1804L

Dental Hygiene 3 Clinic 1 credit
Designed to further student's knowledge and skills through clinical experiences more difficult than those experienced in DEH 1802L. Prerequisite: 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)

DEH1840L

Advanced Radiographic & Clinical Assessment Techniques 1 credit
A laboratory course introducing advanced digital radiographic techniques, the intraoral camera, periodontal probing and dental charting software and other clinical assessment tools. These skills will enable the student to provide comprehensive patient treatment and enhance their ability to interpret intra-oral conditions. (3 hr. clinic)

DEH1940L

Dental Hygiene 1 Optional Learning Support 1 credit
DEH 1940L runs concurrently with DEH 1800L and is designed to enhance student's basic clinical skills and critical thinking abilities. Special emphasis is placed on collaborative learning techniques, effective decision-making, proper time management and self-assessment as students interact with their peers and apply their skills and knowledge in the treatment of clinical patients. (3 hr. clinic)

DEH2300**Dental Medicine and Pharmacy****2 credits**

A study of drugs, particularly those which are used in the practice of dentistry, and the interaction of those drugs with other therapeutic agents. Prerequisite: DEH 1400; corequisite: DEH 1802L. (2 hr. lecture)

DEH2602**Periodontology 1****1 credit**

This course will introduce the student to the concepts of non-surgical periodontal therapy, risk factors in periodontal diseases, classifications of periodontal diseases, the components of the comprehensive periodontal assessment and care plan. Ultrasonic periodontal debridement will be studied. Furthermore, the course will include the study of behavior motivation, the dental hygiene human needs conceptual model, the phases of self-care education and the importance of case presentation in modifying client self-care. (1 hr. lecture)

DEH2603**Periodontology 2****2 credits**

Etiology, classification, diagnosis, treatment and maintenance of the periodontal patient. Prerequisites: DEH 1400, DEH 1802L. (2 hr. lecture)

DEH2603L**Periodontology 2****Laboratory****1 credit**

Laboratory for DEH 2603. Corequisite: DEH 2603. Prerequisite: DEH 1400; corequisite: DEH 2603. Laboratory fee. (2 hr. lab)

DEH2701**Community Dental Health 1****3 credits**

Public Health Dentistry and the role of the dental hygienist. Prerequisite: DEH 1804L. (3 hr. lecture)

DEH2702L**Community Dental Health 2 Clinic****2 credits**

Provides the student an opportunity for application of the principles of public and community dentistry. Corequisite: DEH 2701. (4 hr. field experience)

DEH2806**Dental Hygiene 4****2 credits**

Continuation of dental hygiene theory and practice with special emphasis on gingival curettage and root planning. Prerequisite: DEH 1804L; corequisite: DEH 2806L. (2 hr. lecture)

DEH2806L**Dental Hygiene 4 Clinic****4 credits**

Clinic for DEH 2806. Corequisite: DEH 2806. Laboratory fee. (12 hr. clinic)

DEH2808**Dental Hygiene 5****2 credits**

Basic dental and behavioral sciences in the practice of dental hygiene. Special emphasis is given to Florida laws governing that prac-

tice. Prerequisites: DEH 2806, 2806L; corequisite: DEH 2808L. (2 hr. lecture)

DEH2808L**Dental Hygiene 5 Clinic****4 credits**

Ongoing experience in total dental hygiene care of the periodontally involved patient. Prerequisites: DEH 2603, 2603L, 2806L; corequisite: DEH 2808. Laboratory fee. (8 hr. clinic)

DES1200**Dental Radiology****2 credits**

Techniques and theory for the safe and effective use of radiographs as related to dentistry. Corequisites: DEH 1002, 1002L, DES 1200L. (2 hr. lecture)

DES1200L**Dental Radiology****Laboratory****2 credits**

Laboratory for DES 1200. Prerequisite: Acceptance into the Dental Hygiene Program; corequisite: 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)

DES2100**Dental Materials****2 credits**

Physical properties of dental materials and their use in the oral cavity. Prerequisite: DEH 2806L, DEH 1133; corequisite: DES 2100L. (2 hr. lecture)

DES2100L**Dental Materials Laboratory****1 credit**

Laboratory for DES 2100. Corequisite: DES 2100. Laboratory fee. (2 hr. lab)

ESL for Academic Purposes

EAP0100**Speech/Listening 1****3 credits**

Students develop the ability to understand frequently used words in oral contexts and understand and respond appropriately to simple phrases and questions. Corequisite: EAP 0100L. (3 hr. lecture)

EAP0100L**Speech/Listening 1****Laboratory****1 credit**

This lab will give practice in oral production and aural comprehension of spoken American English. This practice will be related, but not limited to the material taught in EAP 0100. (2 hr. lab)

EAP0120**Reading Level 1****3 credits**

Students develop the ability to comprehend limited written materials. (3 hr. lecture)

EAP0140**Writing Level 1****3 credits**

Students develop the ability to write appropriate phrases and short sentences on personal topics. Corequisite: EAP 0140L. (3 hr. lecture)

EAP0140L**Writing Level 1****Laboratory****1-3 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 0140. (2-6 hr. lab)

EAP0160**Grammar Level 1****3 credits**

Students develop the ability to understand and use basic, high frequency grammatical structures. (3 hr. lecture)

EAP0200**Speech/Listening 2****3 credits**

Students continue to develop the ability to understand frequently used words in oral contexts and understand and appropriately respond to simple phrases and questions. Prerequisite: EAP 0100; corequisite: EAP 0200L. (3 hr. lecture)

EAP0200L**Speech/Listening 2****Laboratory****1 credit**

Continue to give practice in oral production and aural comprehension of spoken American English. This practice will be related to, but not limited to the material taught in EAP0200. Prerequisite EAP 0100L. (2 hr. lab)

EAP0220**Reading Level 2****3 credits**

Students develop the ability to comprehend limited written materials. (3 hr. lecture)

EAP0240**Writing Level 2****3 credits**

Students continue to develop writing skills in the context of guided discourse on personal topics with an emphasis on logical thought and mechanics. Prerequisite: EAP 0140; corequisite: EAP 0240L. (3 hr. lecture)

EAP0240L**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 0140. Prerequisite: EAP 0140L; corequisites: EAP 0240. (1-3 hr. lab)

EAP0260**Grammar Level 2****3 credits**

Students continue to develop control of basic grammatical structures and statement/question patterns. Prerequisite EAP 0160. (3 hr. lecture)

EAP0300
Speech/Listening 3 **3 credits**
 Students develop speaking and listening skills necessary for participating in classroom discussions with an emphasis on clarification through rewording and asking questions. Prerequisite: EAP 0200; corequisite: EAP 0300L. (3 hr. lecture)

EAP0300L
Speech/Listening 3
Laboratory **1 credit**
 Students practice speaking and listening skills necessary for participating in classroom discussions with an emphasis on clarification through rewording and asking questions. Prerequisite: EAP 0200L; corequisite: EAP 0300 (2 hr. lab)

EAP0320
Reading Level 3 **3 credits**
 Students develop the ability to read text on familiar and basic academic topics with an emphasis on vocabulary expansion and application of critical reading skills. Prerequisite: EAP 0220. (3 hr. lecture)

EAP0340
Writing Level 3 **3 credits**
 Students develop the ability to write basic, structured academic paragraphs on familiar topics and execute other academic writing tasks. Prerequisite: EAP 0240; corequisite: EAP 0340L. (3 hr. lecture)

EAP0340L
Writing Level 3
Laboratory **1-3 variable credits**
 Students develop the ability to write basic, structured academic paragraphs on familiar topics and execute other academic writing tasks. Prerequisite: EAP 0240L; corequisite: EAP 0340. (1-3 hr. lab)

EAP0360
Grammar Level 3 **3 credits**
 Students develop the ability to use intermediate-level grammatical structure appropriate to classroom discussion and the writing of academic paragraphs with an emphasis on increased accuracy. Prerequisite: EAP 0260. (3 hr. lecture)

EAP0400
Speech/Listening 4 **3 credits**
 Students continue to develop speaking and listening skills necessary for participating in classroom discussions with an introduction to oral presentation and critical listening skills. (3 hr. lecture)

EAP0400L
Speech/Listening 4
Laboratory **1 credit**
 Students continue to practice speaking and listening skills necessary for participating in classroom discussions with an introduction to oral presentation and critical listening skills. Prerequisite: EAP 0300L; corequisite EAP 0400. (2 hr. lab)

EAP0420
Reading Level 4 **3 credits**
 Students develop academic reading abilities including text on contemporary and literary topics with an emphasis on extensive reading and the enhancement of critical reading skills. Prerequisite: EAP 0320. (3 hr. lecture)

EAP0493
Accelerated Intermediate
Listening, Speaking
and Grammar **8 credits**
 In this alternative course for EAP 0300, 0360, 0400, and 0460, students will learn intermediate grammatical structures necessary for participating in classroom discussions with an introduction to oral presentations and critical listening skills, emphasizing clarification, rewording and asking questions. Prerequisites: EAP 0200 and 0260 or appropriate COMPASS score; corequisite: EAP 0431. (8 hr. lecture)

EAP0494
Accelerated Intermediate
Reading and Writing **8 credits**
 In this alternative course for EAP 0300, 0360, 0400, and 0460, students will learn intermediate grammatical structures necessary for participating in classroom discussions with an introduction to oral presentations and critical listening skills, emphasizing clarification, rewording and asking questions. Prerequisites: EAP 0200 and 0260 or appropriate COMPASS score; corequisite: EAP 0431. (8 hr. lecture)

EAP0440
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)

EAP0440L
Writing Level 4
Laboratory **1-3 variable credits**
 Students continue to practice developing to write more sophisticated, structured academic paragraphs in various rhetorical modes and execute other academic writing tasks. Prerequisite: EAP 0340L; corequisite: EAP 0440. (1-3 hr. lab)

EAP0460
Grammar Level 4 **3 credits**
 Students develop the ability to use intermediate-level grammatical structure appropriate to classroom discussion and the writing of more sophisticated academic paragraphs with an emphasis on increased accuracy. Prerequisite: EAP 0360. (3 hr. lecture)

EAP0493
Accelerated Intermediate
Listening, Speaking
and Grammar **8 credits**
 In this alternative course for EAP 0300, 0360, 0400, and 0460, students will learn inter-

mediate grammatical structures necessary for participating in classroom discussions with an introduction to oral presentations and critical listening skills, emphasizing clarification, rewording and asking questions. Prerequisites: EAP 0200 and 0260 or appropriate COMPASS score; corequisite: EAP 0431. (8 hr. lecture)

EAP0494
Accelerated Intermediate
Reading and Writing **8 credits**
 In this alternative course for EAP 0300, 0360, 0400, and 0460, students will learn intermediate grammatical structures necessary for participating in classroom discussions with an introduction to oral presentations and critical listening skills, emphasizing clarification, rewording and asking questions. Prerequisites: EAP 0200 and 0260 or appropriate COMPASS score; corequisite: EAP 0431. (8 hr. lecture)

EAP1500
Speech/Listening Level 5 **3 credits**
 Students develop communication, organization, and pronunciation skills necessary for effective academic presentation and discussion with an introduction to lecture note taking. (3 hr. lecture)

EAP1500L
Speech/Listening Level 5
Laboratory **1 credit**
 Students develop communication, organization, and pronunciation skills necessary for effective academic presentation and discussion with an introduction to lecture note taking. (2 hr. lab)

EAP1501
Accent Reduction 1 **3 credits**
 Students develop the ability to write basic structured academic essays with an emphasis on accuracy and cohesiveness and execute other academic writing tasks. (1-3 hr. lecture)

EAP1501L
Accent Reduction 1
Laboratory **1 credit**
 Students improve their pronunciation of American English including stress, rhythm, and intonation. The phonetic structure of consonant sounds is systematically analyzed, and students are given practice in correctly pronouncing these sounds and patterns in context. (2 hr. lab)

EAP1502
Accent Reduction 2 **3 credits**
 Students improve their pronunciation of American English including stress, rhythm, and intonation. The phonetic structure of vowel sounds is systematically analyzed, and students are given practice in correctly pronouncing these sounds and patterns in context. (3 hr. lecture)

EAP1502L**Accent Reduction 2****Laboratory****1 credit**

Students improve their pronunciation of American English including stress, rhythm, and intonation. The phonetic structure of vowel sounds is systematically analyzed, and students are given practice in correctly pronouncing these sounds and patterns in context. (2 hr. lab)

EAP1520**Reading Level 5****3 credits**

Students develop the ability to comprehend lengthier texts on diverse academic topics by applying appropriate reading strategies. (3 hr. lecture)

EAP1540**Writing Level 5****3 credits**

Students develop the ability to write basic structured academic essays with an emphasis on accuracy and cohesiveness and execute other academic writing tasks. (3 hr. lecture)

EAP1540L**Writing Level 5****Laboratory****1-3 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 further develop the ability to write a variety of college-level essays with sophistication, fluency and accuracy, and execute other academic writing tasks. (1-3 hr. lab)

EAP1660**Grammar Level 6****3 credits**

Students develop the ability to use complex grammatical structure necessary for effective participation in mainstream college classes. (3 hr. lecture)

EAP1683**Combined Accelerated****Advanced Reading/Writing****Level 6****6 credits**

This is an accelerated alternative course for EAP courses 1520, 1540, 1620, and 1640. Students will learn to complete college-level reading and writing assignments. Prerequisite: EAP 0420, 0440 or appropriate placement score on COMPASS exam (87-92 on reading subtest) and writing sample; corequisite EAP 1689 Combined Accelerated Advanced Speech, Listening, and Grammar. (6 hr. lecture)

EAP1689**Combined Accelerated****Advanced Speech, Listening****and Grammar Level 6****6 credits**

This is an accelerated alternative course for EAP courses 1500, 1560, 1600, and 1660. Students will learn oral communication and lexico-grammatical skills necessary for college-level courses. EAP 0420 and 0440 or appropriate placement score on COMPASS exam (81-88 on grammar subtest and 83-91 on listening subtest) and writing sample; corequisite: EAP 1683 Combined Accelerated Advanced Reading and Writing. (6 hr. lecture)

EAP1930**Accelerated Advanced****Listening, Speaking****& Grammar****4 credits**

This course is in speech, listening and grammar for academic purposes. Students will learn oral communication skills necessary for effective participation in mainstream college classes; students will also learn to strengthen their ability to communicate with lexico-grammatical accuracy appropriate to effective expression at advanced levels. Prerequisite(s): EAP 0420 or appropriate placement score on the COMPASS exam (81-88 on grammar subtest and 83-91 on listening subtest) and a writing sample. Co-requisite(s): EAP 1931. (4 hour lecture)

EAP1931**Accelerated Advanced****Reading & Writing****8 credits**

This is a course in reading and writing for academic purposes. Students will learn to comprehend and interpret diverse college-level reading assignments in English and to complete a variety of college-level writing assignments including essays, papers, and other academic writing tasks with increas-

ing sophistication, fluency, and accuracy. Prerequisites: EAP 0420, 0440 or appropriate placement on the COMPASS exam (87-92 on reading subtest (and a writing sample); corequisite: EAP 1930. (8 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 Cooperative 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. Gordon Rule Assigned. (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 & 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 is a course designed to continue training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-op Department approval and completion of 1949 Co-op Work Experience. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval. (3 hr. lecture)

Education**EDF1005****Introduction to the**

Teaching Profession 3 credits
This survey course includes the historical, sociological, and philosophical foundations of education, governance, finance, policies, legal, moral and ethical issues, and the professionalism of teaching. Students will learn the Florida Educator Accomplished Practices, Sunshine State Standards, and the Professional Educator Competencies. Fifteen hours of field-based experience are required. (3 hr. lecture)

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 Cooperative 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)

EDF2085**Introduction to Diversity**

3 credits
This course provides the opportunity to explore issues of diversity, including an understanding of the influence of exception-

alities, culture, family, gender, sexual orientation, socioeconomic status, religion, language of origin, ethnicity, and age upon the educational experience. Students will learn to explore personal attitudes toward diversity and exceptionalities. Students will also learn the Florida Educator Accomplished Practices, Sunshine State Standards, and the Professional Educator Competencies. Fifteen hours of field experience are required. (3 hr. lecture)

EDF2091**Current Issues in****Education: The Role**

of the Paraprofessional 3 credits
This course is designed to present an overview of the changing role of the paraprofessional in education. It provides current information about employment requirements as well as state, district and school policies. It explores the legal and ethical issues related to the paraprofessional involvement with teachers, students, parents, and administration. Students taking this course will become familiar with a variety of documentation used in the classroom environment to record learner behavior in grades K-12. 10 hours of field experience required. (3 hr. lecture)

EDF2822**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)

EDF2930**Special Topics**

1 credit
This course is designed to provide participants with the knowledge, skills, and dispositions necessary to function successfully as a temporary instructor in the Miami Dade County Public Schools K-12 program. The course includes district policies and procedures regarding safety of students and staff, Code of Student Conduct, Classroom Management, Corporal Punishment, HIV/AIDS, Dress Code for Staff and Students, Child Abuse Reporting, District Curriculum Mandates, Comprehensive Reading Plan, and other topics of current district emphasis. Other topics include: diversity of MDCPS students and strategies for success; national, state and local standards and expectations of teaching performance; Florida Code of Ethics; educational liability laws and issues; general teaching strategies for elementary (preK)-5, middle school (6-8), senior high (9-12); classroom management and student discipline strategies; special education programs, settings, and student needs; beginning a file of activities that can be used across subjects and grade levels. (1 hour 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 and****Assessment in Education****3 credits**

This course focuses on the presentation of research based principles of assessment. Students will select specific standards and competencies and develop formative and summative traditional and alternative assessment measurements. Assessment data will be interpreted to improve academic achievement and ensure equity in the application of quantitative and qualitative assessments. (3 hr. lecture)

EDG2311**Substitute Training****1 credit**

Provides students with the necessary knowledge, skills, and dispositions to successfully serve as temporary instructors for the Miami-Dade County Public School (M-DCPS) Board. The course provides best practices in classroom management and effective teaching strategies; key items of M-DCPS Board policy and Florida statutes; and the Code of Ethics and Principles of Professional Conduct of the Education Profession in Florida. (1 hr. lecture)

EDG2313**General Teaching Skills****for Temporary Instructors****1 credit**

This one credit course is intended to extend the basic knowledge introduced in EDG 2311. Competencies provide best practices in effective teaching strategies. Students will learn

the link between instructional objectives-matching strategies and activities-assessing learner competency; Bloom's Taxonomy and higher order thinking skills. The course content has been selected to comply with Florida statute 1012.35. Prerequisite: EDG 2311 and MDCPS Temporary Instructor Certification. (1 hr. lecture)

EDG2316**Introduction to Teaching Mathematics and Science****for Paraprofessionals****3 credits**

This course provides an introduction to theoretical and practical frameworks for enabling the learning of mathematics and understanding the scientific process using approaches to accommodate diverse student population. The course also presents best practices (methods & strategies) specific to Florida's Sunshine State Standards, subject matter competencies, and pedagogy pertinent to the discipline. A minimum of 10 hours of structured field experience is required. Pre/corequisites: BSC 1005, MAC 1105. (3 hr. lecture)

EDG2370**Introduction to Teaching Reading and Language Arts****for Paraprofessionals****3 credits**

The student will become familiar with a variety of teaching strategies by being involved in discussions, collaborative planning, group projects, role playing, and problem solving. In addition, this course will provide current research and practice and demonstrate instruction in preparing learners to develop as readers and writers. The student will also learn a variety of assessment tools that are aligned with the Sunshine State Standards and the Competency Based Curriculum. A minimum of 10 hours of structured field experience is required. (3 hr. lecture)

EDG2413**Effective Classroom Management for****Temporary Instructors****1 credit**

This one credit course is intended to extend the basic classroom management techniques for Temporary Instructors introduced in EDG 2311. Students will learn how to implement effective classroom rules, natural and logical consequences, positive and negative reinforces, motivation to learn, teacher "witness," bell-to-bell instruction, effective grouping, and handling of severe discipline problems. Prerequisite: EDG 2311 and MDCPS Temporary Instructor Certification. (1 hr. lecture)

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)

EDG3321**General Teaching Skills****3 credits**

This course emphasizes the learning of human development theories, learning theories, and research based pedagogy as they apply to the teaching and learning process. Students will apply and incorporate principles and skills of effective teaching pedagogy through a variety of instructional activities which stimulate the actual teaching process. Prerequisites: EDF 1005, EDF 2085, EEX2000, EME 2040. Special Fee. (3 hr. lecture)

EDG3410**Classroom Management and Communication K-12****3 credits**

This course is designed to familiarize the student with the basic skills and knowledge needed to develop practical strategies and techniques to create a positive and cooperative classroom climate for maximum learning. The course emphasizes organization and management of multiple learning environments and multiple approaches to instructional delivery. This includes alternative instructional strategies such as, but not limited to, collaborative learning, peer tutoring, linked course and coordinated studies learning communities. In addition, the course stresses the influence of environmental factors on behavior, the accountability of students for their own behavior, and an analysis of the legal and ethical issues pertaining to positive behavioral management strategies and disciplinary actions. Finally, the course emphasizes the cognitive, linguistic, affective and cultural needs of individual students so that teachers may design safe and appropriate instructional settings. A minimum of 10 hours of observation/teaching specifically related to principles of learning and development are required. Prerequisite: EDF 3111. (3 hr. lecture)

EDG3443**Classroom Management for Regular and****Exceptional Students****3 credits**

This course focuses on the acquisition of theories and strategies utilized in the creation of a classroom environment that encourages positive interaction and effective communication. Students will learn about ethics, attitudes, values, and behavior intervention strategies for communicating with educational stakeholders. Fifteen hours of field experience are required. Prerequisite: EDG 3321. Special fee. (3 hr. lecture)

EDG4045**Civic Engagement****Through Service Learning****3 credits**

This course will prepare K-12 teachers to actively involve their students in civic responsibility and social action through the development and implementation of high-quality service learning experiences. Students will learn research based practices including utilization of quality literature, curricular integration, and collaboration between students, teachers, and the community will be modeled and practiced. Prerequisite: Must possess a B.S. degree. (Recertification only.) (3 hr. lecture)

EDG4376**Integrated Language Arts and Social Sciences****3 credits**

This course provides an overview of current methods of instruction in Language Arts and Social Sciences. Students will learn to implement and integrate Language Arts and Social Science strategies to create accessibility of the curriculum to a diverse population. Fifteen hours of field experience are 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 3111, EEX 3012. (3 hr. lecture)

EDS4940**Clinical Supervision for Educators****3 credits**

The course content is congruent with the Florida DOE Training, Clinical Supervision for Educators. Successful completion meets the FS 240.549 mandate for clinical supervision training required for hosting college teacher preparation students in field settings. Students will learn to observe and diagnose teacher classroom performance, write remedial plans, conduct post observation conferences, and evaluate performance. (3 hr. lecture)

EEC1000**Introduction to Early Childhood Education****3 credits**

Introduction to Early Childhood Education is the first in a sequence of four courses in Early Childhood Education. The major areas of study include: Early Childhood history, societal and family influences on young children, child growth and development, techniques of observing and recording behavior, recognition of and dealing with physical child abuse, characteristics of quality programs and teachers. (The modules on child development, guiding behavior, and physical child abuse satisfy H.R.S. requirements as mandated by the State of Florida.) EEC 1000 combines three hours per week in the college classroom with a supervised field experience of at least forty hours per semester. Prerequisite: Must earn a grade of "C" or better. (3 hr. lecture)

EEC1001**Introduction to Early Childhood Infant/Toddler Education****3 credits**

This is a foundation course in early childhood education and services for young children

and their families. Students will learn historical roots, societal changes, program differentiation, and future trends. (3 hr. lecture)

EEC1200**Early Childhood Curriculum 1****3 credits**

Early Childhood Curriculum 1 is the second in a sequence of four courses in Early Childhood Education. EEC 1200 enables students to understand how appropriate curriculum planning aids in the advancement of children's social, emotional, physical and intellectual development. The specific curriculum areas of Social Studies, Self-Concept Development, Math, Language and Literacy are covered along with play, room 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. The course enables students to understand how appropriate curriculum planning aids in the advancement of children's social, emotional, physical and intellectual development. The specific curriculum areas of Science, Cooking, Health, Safety and Nutrition, and Art, Music and Movement are included along with motor development, play, and creativity. The course will emphasize fostering effective family/school relationships. (The modules on age appropriate activities and sexual child abuse satisfies H.R.S. requirements as mandated by the State of Florida.) This course combines three hours per week in college classroom with a supervised field experience of at least 40 hours per semester. Pre/corequisite: EEC 1000, must earn a grade of "C" or better. (3 hr. lecture)

EEC1522**Infant and Toddler Environments****3 credits**

This is a foundation course for planning the physical facilities, equipment and materials for quality infant and toddler environments. Students will learn how the physical environment affects development of children and supports individual differences. (3 hr. lecture)

EEC2002**Operation of an Early Childhood Facility****3 credits**

This course will provide opportunity for Administrators of early childhood facilities to develop and enhance their leadership role in designing and implementing quality early childcare and education programs. Areas to be covered include organizational leadership and management, programming and financial and legal issues. This course meets the requirements for the Florida Child

Care and Educational Program Administrator Foundational Level Credential and can be used toward the Advanced Level of this credential. (3 hr. lecture)

EEC2201**Developing Curriculum for Infants and Toddlers****3 credits**

This is a foundation course in developing appropriate curriculum and learning opportunities for infants and toddlers. Students will learn health, safety, physical, social, emotional, cognitive, language and communication development. (3 hr. lecture)

EEC2202**Program Development in Early Childhood Education****3 credits**

Program development in Early Childhood Education is the fourth in a sequence of four courses in Early Childhood Education. The course is primarily concerned with the investigation of effective Early Childhood programming and includes the major areas of the learning environment, disadvantaged children, federal and state programs, special needs and at risk children, current model programs, rules and regulations, and professionalism. Assessment of children and reporting of progress will be examined. The course will emphasize the fostering of effective family/school relationships. (the module on rules and regulations satisfies H.R.S. requirements as mandated by the State of Florida.) The course combines three hours per week in the college classroom with a supervised field experience of at least 40 Hours per semester. Prerequisite: EEC 1000 must earn a grade of "C" or better. (3 hr. lecture)

EEC2221**Curriculum High/Scope Approach****3 credits**

The student will learn about the High/Scope curriculum, its implementation in the classroom and the different components of this approach: the daily routine, planning time, work time, recall time, small-group time, large-group time, and outside time. The student will also learn to use key experiences to set up the learning environment, support children's learning in their play, encourage them to interact in groups, and plan related learning experiences, that will directly impact on the advancement of children's social, emotional, physical, and cognitive development in the areas of language, math, science, art, music, and creativity. (3 hr. lecture)

EEC2224**Emergent Literacy Through the Use of Children's literature****3 credits**

The student will learn about the early childhood teacher's role in promoting emergent literacy in infants, toddlers, and preschoolers. Topics include early literacy, oral language acquisition, quality children's literature, emergent reading and emergent writing, family literacy, and literature perspectives to celebrate diversity and to support a curriculum that builds an understanding of human experiences. Prerequisite: EEC 1200 or 2700. (3 hr. lecture)

EEC2271**Working with Young Children with Special Needs and Their Families 3 credits**

This course provides the student with an overview of young children birth through five years of age with special needs and their families including possible causes and characteristics of exceptionalities, federal laws, and methods of observation, referral process, educational intervention, resources, and advocacy. (3 hr. lecture)

EEC2401**Family Interaction and Cultural Continuity 3 credits**

The student will incorporate practices reflecting the values beliefs of families and the cultures of their communities in establishing positive and productive relationships within an educational setting. Emphasis is given to trusting, supportive relationships, and to sustaining a successful partnership with families. (3 hr. lecture)

EEC2407**Facilitating Social Development 3 credits**

This course provides a general introduction to promoting social competency in young children. The major areas of study include: current brain research, developing empathy, creating prosocial classroom environments, developing self-control and the study of current classroom models of behavior guidance. (3 hr. lecture)

EEC2520**Early Childhood Organization Leadership and Management 3 credits**

This course is designed to provide potential and current child care administrators the opportunity of satisfying one of the educational requirements for the Advanced Level Child Care and Education Administrator Credential as defined by the State of Florida. It is intended to present the needed skills and information in the following areas: organizational structure and dynamics; ethics and professionalism; leadership personnel policies and relationships; and the evaluation and retention involved in staff development. Prerequisite: Florida 40 hour Introductory Child Care Course and Child Development Associate, CDA equivalency or above. (3 hr. lecture)

EEC2523**Programming & Management for Early Childhood Administrators 3 credits**

This course is one of four courses required for a Florida Advanced Level Credential in Child Care Management. The competencies include developmentally and culturally appropriate environments for child-care centers; developmentally and culturally appropriate curriculum for child-care centers; professional standards for child care managers; child observation, assess-

ment, documentation and referral in child care centers; health, safety and nutrition practices in child-care centers; and alliances with the families of children enrolled in child-care centers. Prerequisite: Florida 40 hour Introductory Child-care Course and Child Development Associate (CDA), Child Development Associate Equivalent (CDAE) or above. (3 hr. lecture)

EEC2527**Legal & Financial Issue in Child Care 3 credits**

This course will provide opportunities for administrators or future administrators of early childhood facilities to develop and enhance knowledge in financial and legal issues in the design and implementation of quality early care and education programs. Areas to be covered include financial planning and on-going monitoring, budgeting and accounting, compensation and benefits, facilities and equipment, financial resource development and marketing, technology and record-keeping, legal obligations tax law, insurance and licensure, regulatory requirements and personnel law. This course meets the requirements for one of the three courses required for Florida Child Care and Education Program Administrator Advanced Level Credential. (3 hr. lecture)

EEC2601**Observation and Assessment in Early Childhood 3 credits**

The student will learn the process and importance of observing, documenting, and interpreting the behavior of young children. Emphasis will be placed on the application of various techniques and reports to document the ongoing development of children and the value of using this information to plan meaningful classroom activities. (3 hr. lecture)

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**

This introductory course is designed to familiarize pre-service and in-service educators with issues related to the instruction of students with special needs. Pre-service and

in-service educators will learn the history of the special education field, litigation and legislation, and an overview of exceptionalities. (3 hr. lecture)

EEX2010**Teaching Exceptional Children for Temporary Instructors 1 credit**

This one credit course is intended to extend the basic concepts introduced in EDG 2311. Students will learn research-based child development concepts; federal, state, and local Exceptional Student Education Legislation, programs and procedures; cultural and diversity issues in local schools; the district TESOL program, developmentally appropriate content and activities, and school/classroom organization patterns. Prerequisite: EDG 2311 and MDCPS Temporary Instructor Certification. (1 hr. lecture)

EEX2776**The Challenged Citizen in the Workplace 3 credits**

This course is designed to provide the necessary skills and attitudes to comprehend, analyze, apply, discuss, and incorporate effective practice principles when working in a diverse workforce that includes people with mental and physical challenges. This course emphasizes the perspectives, challenges, and processes regarding making the workplace more inclusive for all employees across a wide variety of professional disciplines. (3 hr. lecture)

EG14050**Nature and Needs of Gifted Students 3 credits**

This is one of five courses designed to provide students characteristics and educational needs of a diverse gifted population; giftedness is examined historically, theoretically, and practically. Students will learn the changing views of intelligence and giftedness, understanding the diverse socio-cultural, linguistic, and economic backgrounds of the gifted, policy and practice, program models, and the process of giftedness identification. Must hold FLDOE Teaching Certificate. (3 hr. lecture)

EG14230**Curriculum and Educational Strategies for the Gifted 3 credits**

This course is the second of five designed to focus on the implementation of research-based strategies, differentiated curriculum planning, and instructional design for the education of gifted students. Students will learn a variety of enrichment and acceleration approaches and techniques will be presented to the student for use in the organization of the learning environment to promote student achievement. Must hold FLDOE Teaching Certificate. Prerequisite: EGI 4051. (3 hr. lecture)

EGI4244**Educating Special Populations of Gifted Students****3 credits**

This course is the third of five designed to educate special populations of gifted students. Students will learn about the socio-cultural and educational similarities and differences of gifted students, specifically the culturally and linguistically diverse, highly gifted, socio-economically challenged, cognitively disabled, and under achievers. Instructional strategies, resources, and materials necessary for the implementation of an equitable system of instruction will be studied by the student. Must hold FLDOE Teaching Certificate. Prerequisite: EGI 4051. (3 hr. lecture)

EGI4301**Theory and Development of Creativity****3 credits**

This course is the fourth of five designed to focus on the theory and development of creativity. Students will learn the practical applications of the psychological, environmental, and socio-cultural aspects of creativity. Elements such as fluency, originality, flexibility, and elaboration are presented and explored. Effective teaching and assessment strategies to manifest and nurture creative thinking and expression are modeled and practiced for the student. Must hold FLDOE Teaching Certificate. Prerequisite: EGI 4051. (3 hr. lecture)

EGI4410**Guidance and Counseling of Gifted Students****3 credits**

This course is designed to focus on the guidance and counseling of gifted students. Students will learn to concentrate on psychological, cultural, and environmental factors that influence the affective growth and development of gifted students. Effective teaching approaches to promote positive self-image and interpersonal skills are modeled and practiced for the student. Guidance, mentoring and counseling interventions that attend to the unique needs of gifted students are examined by the student. Must hold FLDOE Teaching Certificate. Prerequisite: EGI 4051. (3 hr. lecture)

EME2040**Introduction to Technology for Educators****3 credits**

This course applies instructional design principles for the use of technology to enhance the quality of teaching and learning. Hands-on experience with educational media, emerging technologies, hardware, software, and peripherals for the personal computer will be provided. Students will learn to use data driven decision-making to identify appropriate software for classroom applications. Prerequisites: CGS 1060. (3 hr. lecture)

EME3430**Instructional Technology in Mathematics and Science****2 credits**

This course provides teachers with experiences that allow them to use their knowledge of mathematics and science to select technology tools for application in the secondary

classroom. Students will learn to apply tools such as spreadsheets, statistical packages, graphing calculators, data collection devices, probeware, virtual manipulatives, virtual labs, simulations, software, and internet resources. (2 hr. lecture)

ESE1330**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)

TSL1084**Introduction to ESOL****Principles and Practices****3 credits**

The student will learn about the major elements of first and second language acquisition. Course activities are designed to increase students' understanding of ways to improve the quality of language teaching and learning and to expand their communication and critical thinking skills. Course assignments are designed to enhance students' skills in creating a positive learning environment for all K-12 learners, including those at-risk and those from diverse language backgrounds. A minimum of 10 hours of structured field experience is required. (3 hr. lecture)

Education Foundations & Policy Studies

EEX3012**Nature and Needs of****Exceptional Students K-12****3 credits**

This course is designed to familiarize the student with the etiology, terminology, categories, prevalence, behaviors, characteristics and pedagogical approaches of exceptional students, with the expectation that all students have learning strengths. Students will demonstrate Educator Accomplished Practices in this course. Council for Exceptional Children's Content Standards for All Beginning Special Education Teachers are addressed. Minimum 20 hours structured field experience required. (3 hr. lecture)

EEX3071**Teaching Exceptional and Diverse Populations in Inclusive Settings****3 credits**

This course emphasizes the learning of legal and ethical issues in special education, how to address the needs of diverse learners, and the adaptations, accommodations, and modifications used in inclusive classrooms. Students will learn to make informed decisions in designing and adapting curriculum for all students. Fifteen hours of field experience are required. Special fee. (3 hr. lecture)

EEX3103**Survey of Language Development & Common Disorders****1 credit**

This course is designed for the student to acquire a basic understanding of normal language development, identify major communication disorders, and plan for a diverse population. (1 hr. lecture)

EEX3760**Instructional & Assistive Technology in Special Education****2 credits**

This course provides a basic foundation for the use of technology in special education. Students will learn the educational and assistive technologies (AT) used to support low-incidence special education students and select the best technology applications for the classroom. (2 hr. lecture)

EEX4221**Assessment in****Special Education****3 credits**

This course provides opportunities for pre-service educators to analyze and administer informal and formal assessments for special needs student. Pre-service educators will learn to prepare and present assessment data for use in instructional planning and develop individualized educational plans for special needs students. Fifteen hours of field experience are required. (3 hr. lecture)

EEX4264**Curriculum and Instructional Strategies for Students with Disabilities K-5****3 credits**

This course focuses on specialized methods for the creation of instructional curricula and appropriate pedagogic methods for students with disabilities in grades K-5. The development of curricula and the use of instructional approaches that correspond to the capabilities and styles of the various learners will be emphasized. This course meets the guidelines of the Educator Accomplished Practices, and incorporates The Council for Exceptional Children's Content Standards for All Beginning Special Education Teachers. A minimum 20 hours of structured field experience required. Prerequisites: EDF 3214, EEX 3111. (3 hr. lecture)

EEX4265**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 3012. (3 hr. lecture)

EEX4601
Effective Behavioral Practices & Interventions in Exceptional Student Education 3 credits

This course is designed to familiarize the students with the educational management of exceptional learners. Emphasis is on behavior practices and consultation skills leading to students managing their own behavior. Strategies to create and maintain safe, healthy environments for learning in exceptional and inclusive classrooms are presented. Students will demonstrate the Educator Accomplished Practices in this course. The Council for Exceptional Children's Content Standards for all Beginning Special Education Teachers are addressed. Prerequisites: EDF 3111, EEX 3012. (3 hr. lecture)

EEX4614
Conflict Resolution 3 credits

This course emphasizes techniques and procedures designed to assist individuals in their development as self-directed problem solvers. Students will learn ways to assess and de-escalate conflict situations utilizing a cross-cultural perspective and research-based techniques. A conflict resolution program will be developed for implementation at the organizational or school site. (For Recertification Only)

EEX4834
Practicum in Special Education 3 credits

This course provides opportunities to plan, collaborate, and implement strategies and pedagogic methods for creating a research based instructional curricula for students in grades K-12. Students will learn to develop and implement curricula and instructional approaches that correspond to diverse learning styles. Forty hours of field experience are required. (3 hr. lecture)

EEX4930
Seminar in Special Education 3 credits

This course provides the pre-service educator opportunities to discuss and reflect on their development and mastery of the Pre-Professional Florida Educator Accomplished Practices during the completion of their internship in a K-12 classroom setting. Special fee. (3 hr. lecture)

EEX4940
Internship in Special Education 9 credits

This course provides a full time, supervised teaching experience. Students will learn and experience all of the educational and professional responsibilities common to teachers within their area of expertise. (288 hr. Internship)

MAE3320
Interactive Middle School Mathematics Projects 3 credits

In this course students learn principles of effective lesson planning, curriculum design and assessment. Students apply these principles by designing lesson plans, evaluating

learning materials and resources, exploring a variety of teaching strategies to accommodate diverse needs and developing interactive mathematics curriculum projects for middle school students. The course addresses specific Sunshine State Standards, subject matter competencies, and pedagogy pertinent to the discipline and required for certification. Prerequisite: MAC 2312 or department permission. (3 hr. lecture)

MAE4360
Methods of Teaching Mathematics 3 credits

This methods course provides experiences that allow students to develop a theoretical background and practical knowledge for teaching mathematics K-12, using approaches that accommodate the learning needs of a diverse population. Students will design, implement, and assess mathematics teaching and curriculum. Fifteen hours of field experience required. (3 hr. lecture)

MAE4383
Instructional Methods in Secondary Mathematics Using Technology 3 credits

This course addresses the required instructional methods, techniques, strategies, resources, and assessment considerations for effective teaching of secondary mathematics classroom. It also incorporates appropriate technology to support the learning of mathematics. This course addresses specific Sunshine State Standards, subject matter competencies, and pedagogy pertinent to the discipline and required for certification. Prerequisite: MAC 2312 or department approval. (3 hr. lecture)

MAE4793
Applied Research in Teaching and Learning Mathematics 3 credits

This course evaluates and applies research-based evidence of cognitive and affective factors that impede or enhance learning (e.g., learner characteristics, what makes learning a particular concept difficult, and teaching methodologies for specific content areas) to the teaching of mathematics. It includes pedagogical reflection, problem solving, active learning strategies, physical and visual materials, print and electronic resources and effective questioning and communicating. This course addresses specific Sunshine State Standards, subject matter competencies and pedagogy pertinent to the discipline and required for certification. Prerequisites: EDF 3111 and MAC 2312 or department permission. (3 hr. lecture)

MAE4940
Advanced Topics in Mathematics Education Practicum 3 credits

This course is designed to introduce and provide practice in classroom research and expand pre-interns' experience in instructional planning and the implementation of mathematics instruction. Students will learn to use action research strategies to identify and address issues related to learning

about mathematics concepts in grades 6-12. Forty hours of field experience are required. Prerequisite: MAE 4360. (3 hour lecture)

MAE4942
Seminar in Mathematics Education 3 credits

The course provides the preservice educator opportunities to discuss and reflect on their development and mastery of the pre-professional Florida Educator Accomplished Practices during the completion of their internship in a grade 6-12 Mathematics setting. Special fee. (3 hr. lecture)

MAE4945
Internship/Student Teaching in Mathematics Education 9 credits

This course provides a full-time, supervised teaching experience. Students will learn and experience all of the educational and professional responsibilities common to mathematics teachers. (288 hr. Internship)

MHF4404
History of Mathematics 3 credits

A study of the development of mathematics from ancient civilizations to the present time. Prerequisite: MAC 2312 or approval of department. (3 hr. lecture)

SCE3893
Teaching and Learning the Nature of Science 3 credits

This course is designed to introduce the pre-service teacher to the philosophical, historical, and sociological views of the nature of science and its role in science education reform. Students will learn to develop instructional materials and strategies focusing on the nature of science. Fifteen contact hours of field experience are required. (3 hr. lecture)

SCE4362
Methods of Teaching Science 3 credits

This methods course is designed to provide experiences that allow students to develop the theoretical background knowledge and skills that are essential for successful science teaching. Students will learn to design, implement, and assess science teaching and curriculum. Fifteen hours of field experience are required. (3 hr. lecture)

SCE4363
Advanced Topics in Science Education Practicum 3 credits

This course is designed to help the student gain the knowledge and skills necessary to become an effective teacher in the area of secondary and middle school science, including chemistry, physics, biology and earth sciences, with an emphasis on laboratory instruction. The student will develop a more complete theoretical basis for science education including the needs of exceptional students, learn practical applications of the theory, become familiar with modern instructional methods and programs in science education, and develop effective methods of assessment for a variety of evaluation modes. Twenty hours (20) of field experience is required to successfully complete this course. Prerequisite: SCE 4362. (3 hr. lecture)

SCE4943

Seminar in**Science Education 3 credits**

The course provides the preservice educator opportunities to discuss and reflect on their development and mastery of the pre-professional Florida Educator Accomplished Practices during the completion of their internship in a grade 6-12 science setting. Prerequisites: SCE4945 and departmental approval. (3 hr. lecture)

SCE4945

Internship/Student**Teaching in****Science Education 9 credits**

This course provides a full-time, supervised teaching experience. Students will learn and experience all of the educational and professional responsibilities common to science teachers. Co-requisite: SCE 4943.

Education: American Sign Language and ASL Interpretation

INT1000

Interpreting Ethics and Professionalism**3 credits**

The course provides an overview of the career of sign language interpreter. Included are the interpreter's role and responsibilities, Code of Ethics issues, evaluation systems for determining competency and logistical considerations. Various statutes will be examined with regard to their implications for interpreting and related services. These include The American with Disabilities Act (ADA), the education for all Handicapped Children Act and the Rehabilitation Act. Prerequisites: ASL 1150C, 1000. (3 hr. lecture)

INT1202

Sign to Voice Interpreting**3 credits**

In-depth discussion and application of techniques and principles for interpreting situations in legal, medical, oral and deaf/blind. Prerequisite: ASL 2160C, INT 1240. A.S. degree credit only. (3 hr. lecture)

INT1240

Voice to Sign Interpreting**3 credits**

In-depth discussion and application of techniques and principles for interpreting situations in educational, social service, free-lance interpreting and the business aspects of interpreting. Prerequisites: ASL 2160C, INT 1000. (3 hr. lecture)

INT1400

Educational Interpreting**3 credits**

Provides an overview of the field, including the role and responsibilities of educational interpreters, their working conditions and related issues. Also covered are evaluation systems for educational interpreters and the Florida Educational Code of Ethics. Opportunities for skill building will be included with emphasis placed on signing

with conceptual accuracy, mastering various sign systems and developing expertise in the use of technical signs. (3 hr. lecture)

INT1480

Interpreting: Special**Settings & Populations****3 credits**

The course examines various settings in which interpreters work. These include social service and rehabilitation, employment-related, mental health and substance abuse treatment, religious, performing arts, legal and other settings. Also considered are specific deaf and hard of hearing consumers who present unique challenges for interpreters such as oral deaf persons, people who are both deaf and blind and those who would be classified as having minimal language skills (MLS). The course includes lecture and skill building opportunities. Prerequisites: ASL 2160C, INT 1000. (3 hr. lecture)

INT1941

Interpreting Internship**5 credits**

The course includes field observation and supervised practical interpreting experience in a one-to-one interpreting situation in the community. The student is assigned to a practicing interpreter who acts as a mentor for the duration of the internship. A minimum of 240 hours is spent in the internship experience. This includes meetings with college staff and the interpreter/mentor. Prerequisites: All courses in the subject major must have been completed prior to enrolling in this course. (240 hrs.)

Emergency Medical Services

EMS1059

1st Responder**Emergency Care****1 credit**

Provides training in emergency medical care for those who may be first to respond to an accident. The course meets the basic requirements of the U.S. Department of Transportation. Recommended for students who are not required to be certified EMTs. A.S. degree credit only. Prerequisite EMS 1059L. Special fee. (2 hr. lecture)

EMS1059L

1st Responder Emergency**Care Laboratory****1 credit**

Provide training in emergency medical care for those who may be first to respond to an accident. The course meets the basic requirements of the U.S. Department of Transportation. Corequisite: EMS 1059. A.S. Degree credit only (2 hr. lab)

EMS1119

Emergency**Medical Technician****4 credits**

A review of basic life support theory. Areas of emphasis include the prehospital environment, preparatory information, patient assessment, medical emergencies, behavioral emergencies, OB/GYN emergencies, trauma

emergencies, pediatric emergencies and EMS operations. Corequisites: EMS 1119L, EMS 1431. (4 hr. lecture)

EMS1119L

Emergency Medical**Technician Lab and Clinic****2 credits**

Practical application of the content covered in EMS 1119 with an emphasis on cardiopulmonary resuscitation, splinting, bandaging, patient movement, and other skills as recommended by the U.S. Department of Transportation for the EMT-A level practitioner. Corequisites: EMS 1119, 1431. Laboratory fee. A.S. degree credit only. (8 hr. lab)

EMS1431

EMT Hospital/**Field Experience****3 credits**

Practice in local emergency departments and rescue agencies under professional supervision. This course meets the skills recommended by the U.S. Department of Transportation. Corequisite: EMS 1119, 1119L. A.S. degree credit only. (9 hr. clinic)

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)

EMS2601

Paramedic Lecture 1**8 credits**

EMS2601 is the first course in the sequence necessary for completion of the Paramedic Certificate program. The course is designed to reinforce concepts and clinical skills learned at the EMT level and to integrate this knowledge beginning with advanced life support concepts and skills. Emphasis is placed on EMS systems, illness and injury prevention, medical-legal issues, patient assessment, airway management and ventilation, pathophysiology, pharmacology, shock, decision-making, and the management of trauma related injuries. This course includes Modules 1-4 of the 1998 DOT National Standard Curriculum for Paramedic Programs. Prerequisites: EMS 2601L, 2664. A.S. degree credit only. (8 hr. lecture)

EMS2601L**Paramedic Laboratory 1 4 credits**

A review of basic life support practice and an introduction to advanced life support practice. Areas of emphasis include the patient assessment, trauma emergencies, obstetric emergencies, gynecological emergencies, pediatric emergencies and psychiatric emergencies. Students will be expected to master the techniques of patient assessment, intravenous techniques and endotracheal intubation. Corequisite: EMS 2601, 2664. Laboratory fee. (8 hr. lab)

EMS2602**Paramedic Lecture 2 8 credits**

EMS 2602 is the second course in the sequence necessary for the completion of the Paramedic Certificate Program. This course is designed to reinforce and expand upon the material and skills learned in Paramedic 1 level and to integrate prior learning with enhanced life support concepts and skills. Emphasis is placed on patient assessment and recognition of significant findings, pre-hospital diagnosis and differential diagnosis, treatment strategies, anatomy and physiology, pathophysiology, and the management of various emergencies, patients with special challenges, assessment based management, and EMS operations. This course includes Modules 5-8 of the 1998 DOT National Standard Curriculum for Paramedic Programs. Prerequisites: EMS 2602L, 2665; corequisites: EMS 2601, 2601L, 2664. A.S. degree credit only. (8 hr. lecture)

EMS2602L**Paramedic Laboratory 2 4 credits**

Continuation of advanced life support practice. Areas of emphasis include the patient assessment, trauma emergencies, obstetric emergencies, gynecological emergencies, pediatric emergencies and psychiatric emergencies. Students will be expected to master the techniques of patient assessment, intravenous techniques, endotracheal intubation, and advanced life support. Corequisites: EMS2602, 2665. Laboratory fee. A.S. degree credit only. (8 hr. lab)

EMS2659**EMS-Field Internship and Conference 8 credits**

A supervised clinical experience on an Advanced life Support (ALS) vehicle. The 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: EMS 2602, 2602L. A.S. degree credit only. (9 hr. lab)

Engineering - General

EEL2114C**Engineering Circuit Analysis 4 credits**

Basic electrical quantities, sources and elements, power and energy, Kirchoff's law, network solution impedance, transfer functions, plane, periodic and exponential excitation functions, phasor algebra, natural and forced system response, total response, frequency response, resonance, magnetic circuits, physical electronics, operation of electronic devices, principles of electromechanical energy conversion. Prerequisites: MAC 2311, PHY 2049. (2 hr. lecture; 4 hr. lab)

EGN1949**Co-Op Work****Experience 1 1-4 variable credits**

This is a capstone course designed for students majoring in engineering programs. Students will learn to apply the skills and knowledge that they have acquired through their program of study in a real work environment. Prerequisite: Successful completion of required program course work and department approval. A.S. degree credit only. (1-4 hr. lecture)

EGN2033**Civilization & Engineering 1 3 credits**

This course is designed for students who are interested in learning about the impact of technology on people and society. Students learn about changes in human culture and quality of life as a result of technological innovation. Topics include important developments and trends in technology, the interaction between people and technologies, contemporary events in technology and their impact on society, the role of the engineer in designing and promotion of new technologies, and how to evaluate the social, ethical, political, and economic implications of existing and emerging technologies. (3 hr. lecture)

EGN2037**Civilization & Engineering 2 3 credits**

A historical study on the development of engineering-related technology and its impact on society from the industrial revolution to the present. From the steam engine to the microcomputer, relationships between technological and social change are explored with emphasis on how the development of materials, methods and tools affected man and the growth of civilization. (3 hr. lecture)

EGS1001C**Introduction to Engineering 3 credits**

An introduction to the opportunities, challenges, and required skills of the engineering profession. Students explored the different disciplines of engineering, their function in industry, and required education. Professional issues such as registration, ethics, safety, and design are discussed. Projects and activities are used to develop problem solving, communication and computer skills (word-processing, spreadsheets, presentations, mathematical analysis, email, Internet). Prerequisite: MAC 1105. (3 hr. lecture)

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. Laboratory fee. (3 hr. lecture; 4 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**

This is a foundation course in engineering mechanics. Students learn the basic principles of statics covering resultants, equilibrium, trusses, frames, friction, centroids and moments of inertia with vector notation and calculus. The content prepares students for further study in engineering dynamics. Laboratory fee. Prerequisites: MAC 2311, PHY 2048 or equivalent. (3 hr. lecture; 2 hr. lab)

EGS2321**Engineering****Mechanics-Dynamics****4 credits**

This course provides students with the skills they need to analyze and solve problems involving bodies in motion through the application of vector mechanics and Newton's laws. Students will learn Kinetics, energy of particles, rigid bodies in 2-D and 3-D motion and vibrations. Prerequisite: EGS 2311. Special fee. (3 hr. lecture; 2 hr. lab)

Engineering Technology - Civil**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**ETD1110****Technical Drawing 1****4 credits**

Introduces students to the principles of instrument drawing, orthographic projection, visualization, specialized computer process-

es and introductory computer aided drawing (CAD). Students develop drawing and sketching techniques common to industry. Prerequisite: EGS 1111C. Laboratory fee. (2 hr. lecture; 4 hr. lab)

ETD1340**Computer Aided****Drawing & Design****3 credits**

Industry standard drafting and design practice with the assistance of CADD in a laboratory environment. Working drawing and design routines produced in the CADD system and executed to hard copy via plotter. Prerequisite: MTB 1321 or MAC 1105. Laboratory fee. (2 hr. lecture; 2 hr. lab)

ETD1542**Structural Drafting****4 credits**

Development of structural, fabrication and erecting drawings. Course involves study of structural shapes, their properties, and methods of developing connections, as well as study of common reinforced concrete practices. Prerequisite: ETD 1110. Laboratory fee. (2 hr. lecture; 4 hr. lab)

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)

ETD2220**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. Prerequisites: EGS 1111C, ETD 1110. Laboratory fee. (3 hr. lecture; 4 hr. lab)

ETD2350**Computer Graphics****3 credits**

The continuation of ETD 1340 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 1340. Laboratory fee. (2 hr. lecture; 2 hr. lab)

ETD2401**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; 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 subassemblies and complex parts with weld-

ed and fastened and construction is covered. Prerequisites: EGS 1111C, ETD 1110. Laboratory fee. (3 hr. lecture; 4 hr. lab)

Engineering Technology - Electrical**CET1112C****Digital Circuits****4 credits**

This is an introductory course in digital circuits for students majoring in engineering technology fields. Students learn how to apply electronic principles to digital computer circuits and systems. Students also learn how to simplify logical circuits using Boolean algebra, build digital circuits, and perform other laboratory activities. Prerequisite: MAC 1105. corequisite: EET 1015C. Laboratory fee. (2 hr. lecture; 4 hr. lab)

CET1171**Introduction to****Computer Service****and Maintenance****3 credits**

This course is designed as an introduction for students new to IT. Students will learn about the history, design, construction, and maintenance of microcomputers, including the proper handling and use of computer components and tools; how to assemble and disassemble computers; how to perform preventive maintenance; how to identify and upgrade components; how to interpret error messages, and how to perform basic troubleshooting. Laboratory fee. A.S. degree credit only. (3 hr. lecture)

CET1178C**A+ Computer****Hardware Service****3 credits**

This is an intermediate level course that prepares students for A+ hardware certification. Students will learn how to: install, configure, and upgrade components; diagnose and troubleshoot computer systems; identify, test, and troubleshoot motherboards, processors, memory, and printers; and how to connect network equipment. Laboratory fee. A.S. degree credit only. (3 hr. lecture)

CET1487C**Network+****3 credits**

This is an intermediate level course designed for students preparing for the hardware component of the Network+ certification. Students will learn how to install, configure, manage, troubleshoot and upgrade network devices including network interface cards, switches, hubs, wireless access points, routers, and patch panels. They will also learn about the construction, installation, testing and repair of the physical layer of the network, including wired cables, fiber optic media, wireless transmitters and antennas. Demonstrated knowledge of microcomputer fundamentals and system components is required. Laboratory fee. A.S. degree credit only. (2 hr. lecture; 2 hr. lab)

CET2113C**Advanced Digital Circuits 4 credits**

This is a second level course in digital circuits for students majoring in electronics and related engineering technologies that extends the application of sequential and combinational logic circuits and other digital applications. Students will learn to program, operate, and interface with a micro-computer and its elements. Prerequisite: CET 1112C; corequisite: EET 1141C Laboratory fee. (2 hr. lecture; 2 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 1112C, MAC 1105. Laboratory fee. A.S. degree credit only (2 hr. lecture; 4 hr. lab)

CET2179**A+ Certification****Examination Review 3 credits**

A comprehensive course to prepare advanced students to pass the A+ certification examination. Coverage includes microcomputer hardware, the DOS and Windows operating systems, industry standards and practices, and professional competency and conduct. Corequisite: CET 2588C. (3 hr. lecture)

CET2205C**Pulse and Digital Circuits 4 credits**

The theory and verification of the nonlinearities of tubes and transistors and the use of these nonlinearities for nonsinusoidal wave generation, shaping, and switching. Prerequisites: EET 1141C, 2101C. Laboratory fee. A.S. degree credit only. (2 hr. lecture; 4 hr. lab)

CET2588C**Server + Service and Maintenance 3 credits**

This is an advanced course designed for students preparing for the hardware component of the Server + certification. Students will learn how to install, configure, and upgrade workstations and servers; configure and test network and peripheral equipment; and diagnose and troubleshoot advanced computer systems. Prerequisite: CET 1178C or A+ certification. Laboratory fee. (3 hr. lecture)

CET3126C**Advanced Microprocessors 4 credits**

This is an upper division level course for students majoring in electronics engineering technology that presents an in-depth study of advanced (16-bit and 32-bit) microprocessors as they apply to embedded systems. Students learn standards relating to embedded design, hardware requirements, embedded processors, memory, IQ, and buses and software topics relating to embedded design including device drivers, embedded operating systems, middleware and application Software. Students apply this knowledge to the design,

development, and testing of an embedded system. Prerequisite: CET 2123C. Laboratory fee. (2 hr. lecture; 4 hr. lab)

CET4190C**Applied Digital Signal Processing 4 credits**

This is an upper division level course for students majoring in electronics engineering technology. Digital signal processing (DSP) is the study of signals in a digital representation and the processing methods of these signals. Students learn digital and analog signal processing, including how to convert between analog and digital forms, how to measure for digital signal processing including field-programmable gate arrays (FPGAs), digital signal controllers, and stream processors. Prerequisites: CET 3126C, EET 4732C. Laboratory fee. (2 hr. lecture; 4 hr. lab)

EET1015C**Direct Current Circuits 4 credits**

This is a required course for all students studying electronics engineering technology and related disciplines. Students will learn electrical components, inductance, capacitance, and elementary network analysis. Students will learn to verify and apply basic theories and principles through hands-on, laboratory experiments utilizing modern testing equipment. Pre/corequisite: MAC 1105. Laboratory fee. (2 hr. lecture; 4 hr. lab)

EET1025C**Alternating Current Circuits 4 credits**

This is a foundation course in alternating current required for all students in electronics engineering technology and related disciplines. Students will learn vector notation, circuits, impedance, phase shift, networks, transformers, and resonance. Students will apply and verify theories and principles through hands-on, laboratory experiments utilizing modern testing equipment. Prerequisite: EET 1015C; Pre/corequisite: MAC 1114 or 1147 or 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 resistive and reactive networks. Resonant circuits and transient voltages and currents are analyzed. Prerequisite: EET 1141C; corequisite: MTB 1322 (3 hr. lecture)

EET1082**Introduction to Electronics 3 credits**

Learn by building practical electronic circuits. Survey course suitable for both majors and non-majors. Instructor and tutors available to assist in project completion. Topics include: schematics, pictorials, amplifiers, oscillators, burglar alarms, radios, digital circuits. Students will develop individual career plans and learn about employment opportunities within the field. (3 hr. lecture)

EET1141C**Electronics 1 4 credits**

This is the first of two courses covering solid state electronics for students requiring a foundation in electronics. Students will learn how to apply electronic principles to analog circuits and systems, including semiconductor diodes, and applying the fundamental theory of transistors and other solid-state devices; analysis of amplifiers, oscillators, and other applications using a sinusoidal wave. Students also learn basic safety procedures to follow when working in an electronics laboratory and with electronic circuits and systems. Pre/corequisite: MAC 1105, 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)

EET1580**Power Plant Science 2 credits**

This course is designed to familiarize students who are preparing for careers in nuclear power plant maintenance technology with the fundamentals of nuclear plant sciences. Students learn about basic electrical science, properties of reactor plant materials, basic atomic and nuclear physics, heat transfer and fluid flow, reactor safety design, and plant chemistry. Prerequisites: MAC 1105, PHY 1025. A.S. degree credit only. (2 hr. lecture)

EET1581**Power Plant Systems 2 credits**

This course provides an introduction to the major systems and components that make up a modern power plant. (2 hr. lecture)

EET2101C**Electronics 2 4 credits**

This is the second of two courses covering solid state electronics designed for students who are studying Engineering Technologies. Students will learn how to apply electronic principles to analog circuits and systems including transistor amplifiers, feedback and frequency response of linear circuits, operational amplifiers and oscillators. Prerequisite: EET 1141C. Laboratory fee (2 hr. lecture; 4 hr. lab)

EET2323C**Electronic Communications 1 - Analog 4 credits**

This course is designed for students majoring in Electronics Engineering Technology, Telecommunications Engineering Technology, and related disciplines. Students will learn the principles of radio wave transmission and reception, including AM and FM transmitters, receivers, single sideband, television and digital data transmission lines, wave propagation antennas and microwaves. Prerequisite: EET 1141C; corequisite: EET 2101C. Laboratory fee. (2 hr. lecture; 4 hr. lab)

EET2351C**Electronic****Communications 2 - Digital 4 credits**

This course is designed to give students majoring in Electronics Engineering Technology and related engineering technologies a theoretical and practical background in the basic concepts and applications of digital and data communications. Students will learn analog-to-digital (A/D) and digital-to-analog (D/A) conversions; data communications codes and standards; wired and wireless digital communications; modulation, transmission impairment, the telephone system, modems, multiplexers, and electrical interface standards. Hands-on laboratory activities are included. Prerequisites: CET 1112C, EET 1025C. Pre/corequisite: EET 2323C. Laboratory fee. (2 hr. lecture; 4 hr. lab)

EET2515C**Motors and Generators 3 credits**

This course is designed for students specializing in industrial equipment maintenance. Students learn how to analyze, troubleshoot, and repair rotating electric machinery with emphasis on industrial applications. Students learn terminology specific to motors, generators, and transformers; electromechanical device theory; circuits connecting electromechanical devices to voltage sources and loads; and how to apply mathematical analysis to determine quantitative circuit functioning in terms of voltage, current, and power. Prerequisite: EET 1025C. corequisite: EET 1141C. A.S. degree credit only. Special fee. (2 hr. lecture; 2 hr. lab)

EET2527C**Motor Starters, Controllers, and Breakers 3 credits**

This course is designed for students specializing in industrial equipment maintenance covering AC and DC power distribution in the plant. Students learn operating principles, troubleshooting, repair, and maintenance of switch gear, motor control centers, breaker panel power, control, and instrument cable, raceways, protective devices and grounding as related to the generating station. Hands-on, laboratory exercises reinforce each major concept studied. Prerequisites: EET 1141C, EET 2515C. A.S. degree credit only. Special fee. (2 hr. lecture; 2 hr. lab)

EET2547C**Transformers and Power Distribution 3 credits**

This course is designed for students specializing in industrial equipment maintenance. Students acquire an understanding of the components and devices used to distribute power, and how to protect major elements involved in power distribution. Students learn about the uses and maintenance of fuses, circuit breakers, reclosures, and relay coordination; how to protect against lightning and other abnormal conditions; and the protection of transformers, motors, and generators. Prerequisite: EET 2515C; corequisite: EET 2527C. A.S. degree credit only. Special fee. (2 hr. lecture; 2 hr. lab).

EET3158C**Linear Integrated Circuits and Devices 4 credits**

This is an upper division level course for students majoring in electronics engineering technology designed to provide students with practical skills and knowledge needed for application of operational amplifiers, comparators, phase-locked loops, timers, regulators, other integrated circuits in electronic systems. Students learn to apply these skills towards the design of amplifiers, active filters, oscillators, differentiators, integrators and other miscellaneous integrated circuit based systems. Prerequisite: EET 2101C. Laboratory fee. (2 hr. lecture; 4 hr. lab)

EET3548**Power Systems 3 credits**

This is an upper division level course for students majoring in electronics engineering technology covering specific issues of electrical power systems. Students learn power factor, three phase circuits, and transformers. Prerequisite: EET 1025C. (3 hr. lecture)

EET3716C**Advanced System Analysis 4 credits**

This is an upper division level course for students majoring in electronics engineering technology designed to prepare students to perform electrical circuit systems analysis using Laplace transforms and partial fraction expansion. Students learn theorems, Fourier series, frequency response and bode plots, and their application towards practical systems. Prerequisite: EET 2101C; corequisite: MAC 2312. Laboratory fee. (2 hr. lecture; 4 hr. lab)

EET4165C**Senior Design 1 3 credits**

This project-based course is designed to synthesize students' knowledge of the analysis, design, manufacturing, and testing of electronic systems. Students will design experiments, explore professional ethics, practice professional oral and written communications, conduct project feasibility studies, and perform project scheduling. Students learn about human factors, intellectual property, and liability issues. Department approval required. Laboratory fee. (1 hr. lecture; 4 hr. lab)

EET4166C**Senior Design 2 3 credits**

This is a capstone course for students completing the course of study for the baccalaureate in Electronics Engineering Technology in which students demonstrate their knowledge and skills applicable to the degree program's core competencies and outcomes. The course is a project-based experience in which students apply all of the skills they have acquired to analyze, design, simulate, synthesize, and test a complete electronics/electrical system. Department approval required. Prerequisite EET 4165C. Laboratory fee. (1 hr. lecture; 4 hr. lab)

EET4730C**Feedback Control Systems 4 credits**

This course is designed to expose students to the analysis of networks and control systems. Students learn about stability and compensation considerations, using root locus, Nichols chart, and Bode plots: simulation techniques; and how to apply these principles to build and test control systems. Prerequisite: EET 3158C. Laboratory fee. (2 hr. lecture; 4 hr. lab)

EET4732C**Signals & Systems 4 credits**

This course is designed to cover the use of Fourier analysis in electrical and electronic systems and to be an introduction to probability theory, linear algebra, and complex variables. Students will learn how to apply convolution, Fourier transforms, Laplace, and z transforms to electrical signals and systems. Prerequisite: MAC 2311. (2 hr. lecture; 4 hr. lab)

EST1572**Power Plant Fundamentals 3 credits**

This course is designed to provide the student with the theory of operation of power plants and general administrative procedures for completing routine tasks. (3 hr. lecture)

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**

Introduce fiber optic technology and theory and contrast fiber optic with other transmission media. Installation, troubleshooting, and termination of cable. Operation of fiber and copper tools. Selection of appropriate cable for different environmental and telemetric conditions. Use of single and multi-mode cable. Contrast fiber cable with copper cable. Contrast the channel capacity of a fiber cable with that of copper cable. Determine 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. Special fee. (1 hr. lecture; 2 hr. lab)

EST2436C**Biomedical Instrumentation 1 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)

EST2520C**Process Measurement****Fundamentals 3 credits**

This course is designed for students who will be supporting industrial equipment processes. Students learn how to perform the typical measurements made in industrial measurement and control loops. Topics include the basic physics involved in the pressure, temperature, flow, level, and analytical measurement theory. Prerequisite: EET 1141C. A.S. degree credit only. Special fee. (2 hr. lecture; 2 hr. lab)

EST2524C**Machine Alignment 4 credits**

This course is designed for students preparing for industrial mechanical maintenance positions. Students learn how to identify machine alignment problems, tools and techniques for correcting alignment conditions, and how to perform alignments given specific conditions and parameters. Prerequisite: ETI 1000. Laboratory fee. A.S. degree credit only. (2 hr. lecture; 4 hr. lab)

EST2526C**Mechanical Seals 4 credits**

This course is designed for students preparing for industrial mechanical maintenance positions. Students learn how to repair, maintain, and troubleshoot mechanical seals in industrial equipment. Prerequisite: ETI 1000. Laboratory fee. A.S. degree credit only. (2 hr. lecture; 4 hr. lab)

EST2530C**Process Control Technology 3 credits**

This course is designed for students studying systems and associated electronic circuits encountered in the field of electric machinery and industrial controls. Students learn to analyze systems and devices and perform calculations to determine parameters to accurately predict operation. Students examine the concepts and principles of open and closed loop systems, transducers, transformers, Transmission and distribution systems. Prerequisite: EET1025C. A.S. degree credit only. Special fee. (2 hr. lecture; 2 hr. lab)

EST2542C**Programmable****Logic Controllers 1 3 credits**

This first course in programmable logic controllers (PLC), is designed for students preparing for careers in electronics, manufacturing, electrical or industrial technology. Students learn the basic operational concepts common to PLCs, focusing on PLC principles, programming, numbering systems, data manipulation, math and sequencer instructions. Pre/

corequisite: EET 1141C. A.S. degree credit only. Special fee. (2 hr. lecture; 2 hr. lab)

EST2544C**Programmable Logic****Controllers 2 3 credits**

This course is a continuation of EST 2542C for students who are familiar with basic PLC operations and concepts. Students learn the skills required to troubleshoot and maintain logic controllers in a simulated industrial environment. Topics covered include program control instructions, date manipulation instruction, math instructions, acquisition, computer controlled machines and processes. Prerequisite: EST 2542C. A.S. degree credit only. Special fee. (2 hr. lecture; 2 hr. lab)

EST3543C**Programmable****Logic Controllers 4 credits**

This course is designed to provide students with the skills to design, operate, and test PLC systems. Students learn logic fundamentals, programming technologies, integrated circuits, and number systems as applied to PLC technology. Prerequisite: CET 2123C. Laboratory fee. (2 hr. lecture; 4 hr. lab)

EET2250C**Instruments 1****3 credits**

Pressure and temperature sensing and measurement; measuring and control elements; the use of standards and testing devices; the use and care of meters and test equipment; liquid level measurements and combination measurements of pressure, temperature, level and interaction. Prerequisites: EET 1141C, CET 2114C. Laboratory fee. (1 hr. lecture; 4 hr. lab)

ETI1000**Industrial Plant Tools****and Equipment 2 credits**

Students acquire the knowledge and skills necessary to properly select, inspect, use, and care for the tools, test equipment, and lifting/handling equipment commonly used in the performance of assigned tasks in an industrial plant setting. A.S. degree credit only. Special fee. (2 hr. lecture)

ETI1701**Industrial Safety****3 credits**

This course provides the student with the knowledge and skills to recognize hazardous situations in industrial plants and the precautions to be observed and practiced to perform work activities safely. Among the topics covered are industrial safety hazards, electrical safety, working with chemicals, gases, and solvents, protective equipment, and safe working conditions. (3 hr. lecture)

ETI1805C**Introduction to Lifting****and Rigging 3 credits**

This course provides knowledge and skills required by students preparing for careers in industrial maintenance of heavy equipment. Students learn how to determine rigging requirements for lifts, select equipment, calculate loads and safely operate different types of lift equipment. Prerequisites: ETI 1701, EET

1581. A.S. degree credit only. Special fee. (2 hr. lecture; 2 hr. lab)

ETI2315C**Fluid/Pneumatic****Instrumentation 3 credits**

This course is designed for students specializing in industrial equipment maintenance. Students learn and apply the basic principles and operation of hydraulic and pneumatic instrumentation and testing equipment to repair equipment. Laboratory experiments are performed with extensive hands-on application. Prerequisite: MAC 1105. A.S. degree credit only. Special fee. (2 hr. lecture; 2 hr. lab)

ETI2416C**Power Plant Machines****& Components 1 4 credits**

This course is designed for students who are preparing for careers in industrial and/or power plant mechanical maintenance. Students learn the principles, concepts, and applications of various mechanical systems encountered in industrial applications, how to identify basic systems and components encountered in power plants, how to troubleshoot equipment problems, and basic procedures involved in maintaining and replacing component parts. Prerequisite: EET 1581. Special fee. A.S. degree credit only. (2 hr. lecture; 4 hr. lab)

ETI2408C**Welding Processes****3 credits**

This course is designed for students who require basic welding process skills to prepare themselves for entry-level maintenance technician positions. The student learns principles of welding safety, fundamental practices of shielded arc welding, arc welding with consumable and non-consumable electrodes, brazing, soldering, and plasma cutting. Prerequisite: ETI 2425C. Laboratory fee. A.S. degree credit only. (2 hr. lecture; 2 hr. lab)

ETI2417C**Power Plant Machines****and Components 2 4 credits**

This course continues the study of industrial machines begun in ETI2416C for students who are preparing for careers in industrial and/or power plant mechanical maintenance. Students learn the principles, concepts, and applications of various mechanical systems encountered in industrial applications, how to identify basic systems and components encountered in power plants, how to troubleshoot equipment problems, and basic procedures involved in maintaining and replacing component parts. Prerequisite: ETI 2416C. Laboratory fee. A.S. degree credit only. (2 hr. lecture; 4 hr. lab)

ETI2425C**Metallurgical Properties****and Dynamics 3 credits**

This course provides students who are preparing for occupations in industrial maintenance with a foundation in the principles of the metallurgy of steel. Students learn about the thermal, physical and chemical properties of steel. Prerequisite: PHY 1025. A.S. degree credit only. Special fee. (2 hr. lecture; 2 hr. lab)

ETI2451C**Mechanical Maintenance for Power Plants****3 credits**

This course is designed for students who are preparing for mechanical and industrial maintenance operations. Students learn how to read and interpret drawings and blueprints, the application of lubrication principles, how to perform torque procedures, and the correct procedures for maintaining sealants, o-rings, and gaskets in power plant environments. Prerequisite: ETI 2416C. Laboratory fee. A.S. degree credit only. (2 hr. lecture; 2 hr. lab)

ETI3671**Technical****Economic Analysis****3 credits**

This course is designed to cover the formulation and application of analytical techniques to reach cost effective solutions to engineering problems. Students will learn time based analysis of selection, replacement, and lease-or-buy decisions including multiple alternatives, uncertainty, and sensitivity analysis, using a problem-solving approach. Prerequisite: MAC 1105. (3 hr. lecture)

ETI3704**Industrial Safety in Electronics****Engineering Technology****3 credits**

This course is designed to teach students principles of safety in typical industrial electronics and manufacturing environment. Emphasis will be placed on occupational safety and health act (OSHA) and Materials Safety Data Sheets (MSDS). Students will learn analysis and design of safety programs for industry. (3 hr. lecture)

ETI4480C**Applied Robotics****4 credits**

This is an upper division level course designed as an introduction to robotics programming and includes robotic applications for multi-function part manipulation and motion with stepper and servo-motors. Students learn topics related to robotic design including robotic vision, motion planning, sensing and sensors, actuators, navigation systems, mobility, forward and inverse kinematics, and non-holonomic path planning. Laboratory activities provide hands-on application of concepts and theories. prerequisite: CET 3126C. Laboratory fee. (2 hr. lecture; 4 hr. lab)

Engineering Technology - Environmental**EVS2005****Water and Waste Systems****3 credits**

The design, construction, operation, control 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 operation 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 - Industrial**ETI1411****Materials of Industry****3 credits**

Processing of raw industrial materials including ferrous and non-ferrous metals, their mining through manufacturing, and the properties, specifications, and tolerances to which they are made. Additional topics in the exotic metals and plastic are covered. (3 hr. lecture)

Engineering Technology - Mechanical**ETM1700****Air Conditioning Fundamentals****3 credits**

The basic science of air conditioning technology, the fundamentals of air conditioning for environmental control, the function and operation of the equipment and the air conditioning design process. (3 hr. lecture)

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 & 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 & Refrigeration****3 credits**

Study of environmental control heating system design, function, application and industrial refrigeration systems design for food preservation and processing are also 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)

ETI1040**Introduction to****Bioscience Manufacturing****3 credits**

This course introduces students to the field of bioscience manufacturing. Topics will include basic principles of the industry, large-scale process development and the future of the bioscience industry. Current Good Manufacturing Practices (cGMPs), and the nature and delivery system of products will also be discussed. (3 hr. lecture)

ETI1040L**Introduction to Bioscience
Manufacturing Lab****2 credits**

In this laboratory course students will learn the basic principles of the industry, large-scale process development and the future of bioscience. Students also learn about current Good Manufacturing Practices (GMPs), and the nature and delivery system of products. Corequisite: ETI 1040. A.S. degree credit only. (2 hr. lab)

ETI1172**Introduction to
Quality Assurance****3 credits**

This course describes the role and aspects of quality systems and Regulatory affairs in research laboratories, regulated companies, and firms that comply with voluntary standards. Topics include stages in development and submission of drugs and medical devices, patents legislation, and quality systems such as auditing, standard procedures, good manufacturing and laboratory practices. (3 hr. lecture)

ETI1622**Concepts of Lean
and Six Sigma****3 credits**

This course is designed for students who are preparing for careers in the manufacturing industry. Students will learn the basic concepts, frameworks, and techniques used in six sigma, including total quality philosophies, the calculation of six sigma and other vital statistics, tools of lean six sigma, and knowledge of various methodologies. A.S. degree credit only. (3 hr. lecture)

ETI1644**Advanced****Manufacturing Supply Chain****3 credits**

This course is designed to provide students who are preparing to be manufacturing support technologists with the fundamental concepts of advanced manufacturing supply chain management (SCM) principles. Students will learn how to use manufacturing planning and control systems to coordinate material, labor, capacity and other resources to optimize manufacturing operations. Students also learn the key features of automated systems that can be used to manage the supply chain process. A.S. degree credit only. (3 hr. lecture)

ETI2404**Advanced****Manufacturing Technology****3 credits**

This is a course for students intending to work in manufacturing environments. Students will learn the basic concepts about advanced manufacturing operations and processes, including sourcing materials, production planning and process monitoring, and control to distribution activities. Students also review the facility and regulatory requirements needed to support manufacturing operations. Activities may include facility tours and site visits. A.S. degree credit only. (3 hr. lecture)

ETI2416C**Power Plant Machines
& Components 1****4 credits**

This course is designed for students who are preparing for careers in industrial and/or power plant mechanical maintenance. Students learn the principles, concepts, and applications of various mechanical systems encountered in industrial applications, how to identify basic systems and components encountered in power plants, how to troubleshoot equipment problems, and basic procedures involved in maintaining and replacing component parts. Prerequisite: ETI 1870 Special fee. A.S. degree credit only. (2 hr. lecture; 4 hr. lab)

ETM1313C**Hydraulics and Pneumatics****3 credits**

Fluid mechanics; the flow of water, air and oil; calibration of metering devices; pipe friction; elementary hydraulic tests; friction and energy loss, and devices for making fluid measurements. Laboratory experiments are performed. Prerequisite: MAC 1105. (2 hr. lecture; 2 hr. lab)

ETM1315C**Applied Pneumatics
and Hydraulics****3 credits**

This course prepares students to perform mechanical maintenance on industrial equipment and devices. Students learn the theory and application of fluid mechanics, how to calibrate metering devices, and conduct elementary hydraulic tests. Pre/corequisite: MAC 1105 Laboratory fee. A.S. degree credit only. (2 hr. lecture; 2 hr. lab)

English Language & 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. (1920's). 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 1960's, including prose, poetry, drama, and biography as well as films and some TV specials. (3 hr. lecture)

CRW2001**Creative Writing 1****3 credits**

Imaginative writing in selected genres. (3 hr. lecture)

CRW2002**Creative Writing 2****3 credits**

Imaginative writing in selected genres. (3 hr. lecture)

CRW2700**Reading & 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. 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". Gordon Rule assigned. Special fee. (3 hr. lecture)

ENC1102**English Composition 2****3 credits**

This is the second required general education core course in college-level writing. Students will learn the conventions of standard edited American English. Students will learn the conventions of standard edited American English. Students will also compose informative and persuasive essays, write responses to a variety of literary genres, and produce a documented paper based on research. This course fulfills the Gordon Rule requirement and must be completed with a grade of "C" or better. Prerequisite: ENC 1101. (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, and emphasizes 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. Prerequisites: ENC1101, 1102 or equivalent with a grade of "C" or better. Gordon Rule Assigned. (3 hr. lecture)

ENG1949**Co-op Work****Experience 1: ENG****3 credits**

This course is designed to provide training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-op Department approval. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval. (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. Gordon Rule Assigned. Prerequisites: ENC 1101, 1102 or equivalent. (3 hr. lecture)

LIT2131**Mythology in Literature:****The Arthurian Tradition 3 credits**

The course will trace the progress of the legends surrounding King Arthur from medieval to contemporary poetry and prose, with primary focus on literary texts and supplementary investigation of Arthurian themes in art, film, and music. (3 hr. lecture)

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)

LIT2174**Literature of the****Holocaust and Genocide 3 credits**

This course explores the literary responses to the Holocaust and Genocide using a variety of texts including written, film, and propaganda/graphic arts. Students will learn the various literary techniques used to interpret these key world and historical events. Prerequisite: ENC 1101. (3 hr. lecture)

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 litera-

ture and with the principal genres and sub-genres including, but not limited to, picture books (Mother Goose, easy-to-read books, picture storybooks); traditional fantasy (folktales, myths); modern fantasy (curious characters, science fiction); realistic fiction; poetry; and nonfiction. It will also analyze the role that literature has played and/or should play in the teaching of reading in primary school. (3 hr. lecture)

LIT2480**Issues in Literature & Culture 3 credits**

LIT2480 explores literature as a form of cultural expression. Students are engaged in the critical process of analysis by connecting literary texts to cultural issues. Through oral and written assignments, and practical investigation, students will study literature as a socio-cultural response by writers to the world in which they live. Gordon Rule assigned. (3 hr. lecture)

English Language and Literature - College Preparatory

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. (2 hr. lecture; 4 hr. lab)

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. (2 hr. lecture; 4 hr. lab)

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. (2 hr. lecture; 4 hr. lab)

Environmental Studies

EVR1001

Introduction to Environmental Studies 3 credits

This course will introduce the fundamentals of major topics in the environmental studies field. 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

Increasing stricter legislation and continuing public interest in conservation and environmental matters have emphasized the importance of flow measurements. Uniform and reliable measurements data are needed to determine the results of conservation and quality control measures, and to enforce water conservation and regulatory requirements. This course provides the student instructions in the field of open channel flow. This course will be of practical value to individuals dealing with the realities of difficult open channel flow problems. (3 hr. lecture)

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 & Urban Industrial Pollutants 3 credits

This course offers an introduction to the forces of nature, plants and animals that form ecosystems. The focus is on urban growth and industrial discharges and the effects of development and pollution on such habitats. The scope of this study surveys the relevance of chemistry, biology and the inevitable connection between different fields of remediative efforts. (3 hr. lecture)

EVR1633

Hazardous Materials Emergency Response 1 4 credits

Teaches the skills needed to develop response tactics in the event of an incident in a 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. Also the communication that must be available to emergency responders is 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 & 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 & Disposal 3 credits

The course is designed to explain the methods of recovery, incineration and/or disposal of hazardous waste. Topics include contracting qualified disposal organizations, obtaining permits and ensuring regulatory compliance of hazardous waste. (3 hr. lecture)

EVR1802

Industrial Processes 4 credits

Emphasis is placed on where hazardous materials are used and generated in industrial processes. Understanding the constraints of product lines are discussed. Special attention is paid to potential acute and chronic hazard exposures from various industrial processes. Prerequisites: CHM 2032, 2032L. Special fee. (4 hr. lecture)

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 students must have satisfactorily completed VCC courses; Introduction to Industrial Hazardous Waste, Identification of Environmental Pollutants, Introduction to Environmental Air Pollution. (2 hr. lecture)

EVR2613**Hazardous Materials****Emergency Response 2 4 credits**

This is a follow-up course to EVR 1633. In this course, students will learn how to size up a situation and how to determine needed resources. They will learn to identify NFPA warning signs and what the signs mean. Time will be spent responding to simulated emergencies involving hazardous materials, in minimizing the danger, and in completing clean-up operations. Prerequisite: EVR 1633. Special fee. (3 hr. lecture; 2 hr. lab)

EVR2625**Infectious and Nuclear Materials****3 credits**

Students in this course learn the proper handling and disposal techniques for both infectious (biological) and nuclear (radioactive) materials. Personal hygiene and monitoring are emphasized in addition to the proper selection and use of personal protective equipment. Packaging and shipping requirements will be studied. (2 hr. lecture; 2 hr. lab)

EVR2630**Hazardous Materials****Risk Analysis****3 credits**

Hazardous materials Risk Analysis teaches students a systematic method to be used when analyzing risks associated with hazardous materials. This type of analyses that might be done as part of a planning operation where time is not a critical factor; it might be done at the scene of an incident involving the leak of a hazardous material. Students will be taught the essential resources needed for each situation and how to use them. (3 hr. lecture)

EVR2631**Hazmat****Communication Bridge****1 credit**

This course provides the vocational student with the skills and knowledge to receive credit in EVR 1010, Environmental Compliance; EVR

1635, Hazard Communication Standard; EVR 1640, Hazardous Materials Regulations 1; EVR 2630, Hazardous Materials Risk Analysis, and VCC courses. A survey of Hazardous Material Regulations, Elementary Risk Assessment, Hazard Communications, Environmental Compliance and the Regulatory Risk Bridge course, EVR 2860. (1 hr. lecture)

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 2****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 impacts organizations have on environmental systems (e.g. resource depletion) will be studied. Finally, the students will attain improved scientific understanding of the ecosystem integrity and dynamics. Corequisites: EVR1001, 1262, Special fee. (3 hr. lecture)

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. Prerequisite: EVR 2890. Special fee. (3 hr. lecture; 2 hr. lab)

EVR2800**Hazmat Health Bridge****1 credit**

This course provides the skills and knowledge required to allow the vocational student to achieve Associate of Science credit for EVR 2625, infectious and Nuclear Materials; ad, EVR 2805 Hazardous Materials Health Effects. The student must have completed VCC courses; Hazardous Materials Health Effects, and infectious and Nuclear Materials. (1 hr. lecture)

EVR2805**Hazardous Materials****Health Effects****3 credits**

A review of the research done in determining the systematic health effects of exposures to chemicals. Determination of risk factors, routes of entry, control measures and acute and chronic effects are discussed. Emphasis is placed on toxicological terminology and how the products affect body systems. (2 hr. lecture; 2 hr. lab)

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, response to the emergency, supervise clean-up and provide public relations information. Management skills will be developed. Prerequisite: EVR 2641. (2 hr. lecture; 2 hr. lab)

EVR2845**Elements of Emergency****Response Management Bridge 1 credit**

This course provides the skills and knowledge to the vocational student to receive Associate of Science credit for EVR 2840, Hazardous Materials Emergency Response 3. The student must have satisfactorily completed VCC course; Advanced Hazardous Materials. (1 hr. lecture)

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 & 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)

Film, Radio, TV Technology**DIG3255C****Sound Design****3 credits**

The practices and procedures of advanced audio production, emphasizing practical rather than theoretical operation. The student will learn advanced audio recording, mixing, and editing, overdubbing, and aesthetics. (2 hr. lecture; 2 hr. lab)

DIG3347C**Digital Cinematography****3 credits**

This course provides students with the skills and knowledge necessary to plan and execute image capture for visual effects that combine live action and computer generated elements using current technologies and techniques. (2 hr. lecture; 2 hr. lab)

DIG4345C**Digital FX & Compositing****3 credits**

This course provides students with the skills and knowledge necessary to plan and execute visual effects that combine live action and computer generated elements using current technologies and techniques. (2 hr. lecture; 2 hr. lab)

DIG4505C**DVD Authoring, Web Design,****& Electronic Distribution****3 credits**

Students will learn how to author interactive DVDs, create a basic website and distribute audio and video content via the internet. (2 hr. lecture; 2 hr. lab)

FIL1030**History of Film****3 credits**

The student becomes familiar with important films, techniques and styles as well as industrial and social developments of the cinema. Special fee. (3 hr. lecture)

FIL1055**American****Independent Cinema****3 credits**

This course beyond specifically examining the economic impact of independent films on the industry, will also examine the emergence of the Hollywood majors into the independent film marketplace as a means of (1) understanding the nature of their business and the inherent opportunities/threats that lie therein, and (2) designing a way of approaching the creative and business production of independent cinema. (3 hr. lecture)

FIL1060**Survey of****Documentary Film****3 credits**

This course explores the historical development of the nonfiction film. Students will learn the history of the nonfiction film from its origins in the late 1800's to the present with an emphasis on the works of American and European filmmakers. Films will be presented and discussed in the socio-political and cinematic context of their release time. (3 hr. lecture)

FIL1100**Screenwriting 1: Understanding****Dramatic Structure****3 credits**

This is a beginning workshop class covering narrative script writing for film and television. Working in a collaborative group environment, students will concentrate on developing a short-format screenplay and will learn three-act dramatic story structure, script elements, their applications and standard industry formatting. (3 hr. lecture)

FIL1420C**Film Production 1:****Introduction to the****Filmmaking Process****4 credits**

An introduction to the art and tools of narrative filmmaking. Students will learn industry procedures and protocols as well as visual storytelling and editing in the production of several silent Super 16mm films. Pre/corequisite: FIL 2552C with grade of "C" or better. (2 hr. lecture; 4 hr. lab)

FIL1431C**Film Production 2: Basic****Cinematography and Sound****4 credits**

This course is an introduction to sync-sound filmmaking. Students will learn the fundamentals of cinematography and sync-sound recording in the production of Super 16mm films. Prerequisites: FIL 1420C and FIL 2552C, both with a grade of "C" or better. (2 hr. lecture; 4 hr. lab)

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)

FIL2131**Screenwriting 2:****Character Development****3 credits**

The student will learn character development for narrative motion picture screenplays with emphasis on dialogue, motivation and development of character analysis. Prerequisite: FIL 1100. (3 hr. lecture)

FIL2310**Film Camera and Lighting****2 credits**

Students learn more advanced relationship between film and lighting and apply this to creative production in 16mm film. Laboratory fee. (1 hr. lecture; 2 hr. lab)

FIL2370**Film Workshop****3 credits**

Advanced film techniques are used to produce a short film. Students will go through all the steps required in film production of a 16mm film. Prerequisite: Permission of department chairperson. A.S. degree credit only. Special fee. (2 hr. lecture; 2 hr. lab)

FIL2407**Film/Pre-Production 2 credits**

This class prepares students for the film production process by introducing them to the technical and organizational aspects of filmmaking that need to be completed before the first day of production. Students will learn all aspects of pre-production planning and preparation including analyzing and interpreting scripts, storyboards, fax-sheets and set designs, casting, wardrobe and make-up considerations and they will learn to prepare a location and studio set-up. (1 hr. lecture; 2 hr. lab)

FIL2413**Screenwriting and Storyboarding 3 credits**

This course will introduce techniques involved in screenwriting and storyboards to include the analysis of already published works in other media for adaptation to film/video. Prerequisite: FIL 1100 or department approval. (3 hr. lecture)

FIL2480C**Film Production 3 4 credits**

This course covers directing for film. Students will learn how to direct a film, from the pre-production stage through the shooting process and post-production, by producing individual short films. Prerequisites: FIL 1431C, 2553C with a grade of "C" or better. Laboratory fee. (2 hr. lecture; 4 hr. lab)

FIL2515C**Film Production 4 4 credits**

This course emphasis preproduction and production protocols, direction of actors, rehearsals, camera staging, scene coverage and shooting for continuity. Working in teams, the students learn to apply the knowledge acquired in previous film courses to the production of short narrative sound films in Super 16mm of portfolio quality. Prerequisite: FIL 2480C and FIL 2553C with a grade of "C" or better. (2 hr. lecture; 4 hr. lab)

FIL2552C**Editing: Level 1 3 credits**

Students will learn basic theory and practice of non-linear editing, and the basic workflow of capturing, editing, titling, and outputting, while utilizing Final Cut Pro editing software. Laboratory fee. (2 hr. lecture; 1 hr. lab)

FIL2553C**Editing: Level 2 3 credits**

Students will learn intermediate level theory and practice of non-linear editing, with an emphasis on editing sound for narrative productions, using Final Cut Pro editing software. Prerequisite: FIL 2552C with a grade "C" or better. Laboratory fee. (2 hr. lecture; 2 hr. lab)

FIL2560C**Editing: Level 3 3 credits**

This course focuses on editing techniques using the Avid platform. Students will transfer their Final Cut Pro proficiency gained in Editing 1 and 2 to the Avid platform, while learning to perform functions exclusive to

the Avid. Prerequisite: FIL 2553C with a grade of "C" or better. Laboratory fee. (2 hr. lecture; 2 hr. lab)

FIL2572C**Advanced Video Post Production 3 credits**

Students will learn advanced theory and practice of non-linear editing. The course will concentrate on effects, color correction and editorial working practices. Prerequisite: FIL 2552C, 2553C with a grade of "C" or better. Laboratory fee. (2 hr. lecture; 2 hr. lab)

FIL2611**Film Business Marketing Distribution Exhibition 3 credits**

Examination of the functional areas within marketing as well as the various distribution means (both current and projected) that are governing the sale of independent feature films or films financed outside of the studio system. Students learn to distribute their own selected films in this course. Prerequisite: FIL 1431. (3 hr. lecture)

FIL2945**Film Internship 3 credits**

Students are placed in industry positions to work 15 hours per week for on-the-job training. Prerequisite: FIL 1431C or departmental approval. (15 hr. per week)

FIL2949**Co-op Work Experience 2: FIL 3 credits**

This course is designed to continue training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisites: Co-Op Department approval and completion of 1949 Co-Op Work Experience. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-Operative Education Office to obtain registration approval. Prerequisite: FIL 2515C. (3 hr. lecture)

FIL3602**Business Practices & Production Management 3 credits**

This course prepares the student to enter the workforce effectively as an independent contractor in the Film, TV & Digital production industries. Topics include selecting the appropriate business model, setting up a corporation, licensing, securing credit, accounting, billing, tax implications, advertising, promotion and development of strategies for securing continuous work and growing the business. This course also instructs the student on the process of preparing and running a production. (3 hr. lecture)

FIL3651**Grant Proposals & Funding 3 credits**

This course prepares the student to write grant proposals and secure funding for non-fiction film/TV productions. (3 hr. lecture)

FIL4164**Fiction Scriptwriting 3 credits**

The fundamentals of story structure and character development as introduced in screenwriting 1 and Screenwriting 2 are refined and applied to writing a proposal, character analysis and detailed outline for a feature length motion picture. (3 hr lecture)

FIL4585C**Production Workshop 1 4 credits**

In this production course, students will learn and apply industry-standard pre-production and production techniques to produce a fiction or non-fiction film. Students will go through a selection process to determine their crew positions on the production. (2 hr. lecture; 2 hr. lab)

FIL4586C**Production Workshop 2 4 credits**

In this post-production course, students will learn and apply industry-standard post-production techniques to complete the films started in Workshop 1. (FIL 4585C). Students will go through a work assessment process to ensure the completion of the production. (2 hr. lecture; 2 hr. lab)

RTV1100**Writing for Electronics Media 3 credits**

This course should enable you to write comfortably for the media in a variety of formats. You will be introduced to analysis and preparation of scripts that emphasizes common principles of wording for mass media of communication and formats peculiar to each medium. You should learn basic broadcast principles of copy preparation, first for radio and then for the added requirements of television news. Particular attention will be given to commercials and public service announcements. There will be opportunities to study and write documentaries and other long-form programs. At the end of the course, you should understand what goes into a script and have the ability to write a workable script in the medium of your choice. (3 hr. lecture)

RTV1240C**Radio Production 3 credits**

Basic operational procedures and practices of audio control room functions, the studio areas of radio, television, film, and sound recording operations. Laboratory fee. (2 hr. lecture; 2 hr. lab)

RTV1241C**TV Studio Production 1 4 credits**

The practices and procedures used in the operation of broadcasting equipment in the television 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 prescribed 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)

RTV2205C**Television Workshop****3 credits**

Production of TV shows from the script to the taping and the fully edited master. Includes post production if required. This course combines learning outcomes from all previous production courses through professional level productions. Prerequisite: RTV 2246C. Laboratory fee. May be repeated for credit. (1 hr. lecture; 4 hr. lab)

RTV2230C**Radio and Television****Announcing****3 credits**

Training in microphone technique and speech, including pronunciation and enunciation intonation and inflection for radio and television broadcasting. Practice in writing, rewriting, copy editing and delivering major types of copy-news, sports, and commercials. Special fee. (2 hr. lecture; 2 hr. lab)

RTV2243C**Television Directing****3 credits**

Basic operational procedures and practices of directing for television. Prerequisite: RTV 1242C. Laboratory fee. (2 hr. lecture; 2 hr. lab)

RTV2244**TV Direction 2****3 credits**

Provides a deeper knowledge of the directing equipments in a television crew. The students work for several different producers and develop 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**

This course covers single-camera field production and electronic news gathering for television. Students will learn writing, producing and editing for single-camera television production. Prerequisite: RTV 1242C, FIL 2552C. (2 hr. lecture; 4 hr. lab)

RTV2246C**Electronic Field****Production 2****4 credits**

Students will learn advanced single-camera and multi-camera productions on location with full editing and other post-production techniques. Prerequisite: RTV 2245C. (2 hr. lecture; 4 hr. lab)

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, and announcing skills, and techniques with new materials of format preparation and presentation as required by typical announcer-operators found in smaller stations. Prerequisites: RTV 1241C. Laboratory fee. (2 hr. lecture; 2 hr. lab)

RTV2252**TV/Video Pre-Production****2 credits**

Students will learn all aspects of pre-production planning and preparation including analyzing and interpreting scripts, storyboards, fax sheets, and set designs, casting wardrobe and make up considerations and they will learn to prepare a location and studio set-up. (1 hr. lecture; 2 hr. lab)

RTV2300**Broadcast News****3 credits**

Basic and practical familiarization with the mechanics and procedures of the news room. Adaptation of local and wire copy for audio and film, placement of commercials, news service, style guides, news copy editing, approaches to information sources, methods of applying for jobs are discussed. Students will work together to produce a complete studio newscast. Special fee. Prerequisites: RTV 1100, 1241C. (1 hr. lecture; 2 hr. lab)

RTV2940**Internship****3 credits**

Students will gain industry experience working in a broadcasting business or on a project under the supervision of a professional. Minimum requirements are 15 hours per week and departmental approval. (3 hr. lecture)

RTV2941**Fall Television Practicum****3 credits**

This course is an advanced internship with limited enrollment requiring departmental approval. Students will learn advanced camera and lighting techniques, while assisting in the production of shows for Cable-TAP television. Miami-Dade County's official community access channel. AS degree credit only. Prerequisite: RTV 1242C. (6 hr. lab)

RTV2942**Spring****Television Practicum****3 credits**

This course is an advanced internship with limited enrollment requiring departmental approval. Students will learn advanced camera and lighting techniques, while assisting in the production of shows for Cable-TAP television. Miami-Dade County's official community access channel. AS degree credit only. Prerequisite: RTV 1242C. (6 hr. lab)

RTV2943**Summer****Television Practicum****3 credits**

This course is an advanced internship with limited enrollment requiring departmental approval. Students will learn advanced directing and floor management techniques, while

assisting in the production of shows for Cable-TAP television, Miami-Dade County's official community access channel. Prerequisite: RTV 1242C. AS degree credit only. (6 hr. lab)

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)

RTV3408**Ethics & Research for****Non-Fiction Scripts****3 credits**

This course impresses on the student the importance of acquiring and applying proven research methods for reliable fact-finding; respecting social, cultural and environmental responsibilities; as well as finding ethical resolutions to issues that arise in non-fiction film/TV production. (3 hr. lecture)

RTV3810C**Broadcast Design &****On-Air Promotions****3 credits**

This course explores the elements of graphic design for video and film. Through the use of graphic design software, students will create projects for on-air promotions with specific emphasis on layout, color and composition. (2 hr. lecture; 2 hr. lab)

VIC1000**Visual Communications****3 credits**

An introductory level course for persons being trained in the visual aspects of film and video production and related fields specifically dealing with design elements and principles in the moving image. Emphasis is on sight, sound and motion. (2 hr. lecture; 2 hr. lab)

VIC1205C**Video Compositing****and Motion Graphics 1****3 credits**

This course is an introduction to visual effects for film and television. The student will learn basic level techniques of still and motion graphic design in visual effect compositing for film and video using Photoshop and After Effects. Prerequisite: FIL 2552C. Laboratory fee. (2 hr. lecture; 2 hr. lab)

VIC2206C**Video Compositing****and Motion Graphics 2****3 credits**

This course is an intermediate course in visual effects for film and television. The student will learn intermediate level techniques of still and motion graphic design in visual effect compositing for film and video using Photoshop and After Effects. Prerequisite: VIC 1205C with a grade of "C" or better. (2 hr. lecture; 2 hr. lab)

VIC2207C

Video Compositing and Motion Graphics 3 3 credits

This course is an advanced course in visual effects for film and television. The student will learn advanced level techniques of still and motion graphic design in visual effect compositing for film and video using Photoshop and After Effects. Prerequisite: VIC 2206C with a grade of "C" or better. Laboratory fee. (2 hr. lecture; 2 hr. lab)

Finance

FIN2000

Principles of Finance 3 3 credits

The creation, allocation, and utilization of money, and the effect of monetary policy upon individuals, business, national and international economics. This course provides a basis for further study of monetary theory, banking, finance and securities. (3 hr. lecture)

FIN2010

Investments in Stocks and Bonds 3 3 credits

The basic principles of the stock market as they affect the individual investor in stocks and bonds. Investment in these securities is studied from the standpoint of the short-term and long-term investors. (3 hr. lecture)

FIN2051

International Financial Management 3 3 credits

The basic concepts and principles of international finance, with consideration of the financial environment, transactions, and flows. Exchange rates, risks, and government policies affecting business are analyzed as well as management policies and decisions. (3 hr. lecture)

FIN2100

Personal Finance 1-3 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)

FIN3400

Finance for Non-Financial Managers 3 3 credits

The students will learn to apply their financial skills and decision-making ability to address financial issues in a business environment. They will learn how financial markets influence their decisions and the role of financial intermediaries in these markets. Emphasis will be placed on financial and capital budgeting, working capital management, short and long term financing, valuation of the firm, and overall capital structure. The course will require the student to apply the time value of money through the use of present and future value scenarios. Prerequisites: ACG 2071, QMB 2100 or STA 2023. (3 hr. lecture)

Fire Science

FFP1000

Fire Protection 3 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 3 credits

A training course for students who will provide basic life support to victims of emergencies, to minimize patient's discomfort and prevent further injury. This course is required for acceptance to EMS classes and is a required part of Fire Fighter Training, but may be taken by itself. (2 hr. lecture; 2 hr. clinic)

FFP1505

Fire Prevention 3 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, underwrite's laboratory, and the fire prevention intent of various codes. (3 hr. lecture)

FFP1710

Supervision-Leadership for Fire Officers 3 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 3 credits

A study of buildings fire codes; life safety and OSHA fire protection codes; a study of basic building construction files and the behavior of building materials during a fire; a survey of research and standards development. (3 hr. lecture)

FFP2301

Fire Hydraulics 3 3 credits

The basic theories of hydraulic as applied to the fire services. The mathematics and formulas necessary to solve fire stream calculations and any such variables. Prerequisites: MTB 1321 or equivalent ability to square numbers and perform square root is required. (3 hr. lecture)

FFP2305

Fire Apparatus and Equipment 3 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 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 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 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 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 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)

FFP2700**Fire Department Management****3 credits**

The municipal supervision-management policies, practices and procedures necessary to keep the firefighting team ready to implement fire prevention/suppression activities. One of four courses recommended by the Florida Fire Standards Council for Pre-Officer Training. Prerequisite: FFP 1710. (3 hr. lecture)

FFP2740**Fire Service Instructor****3 credits**

The instructors' responsibilities in transmitting good study habits, class communication; human relations; learning and teaching concepts; job analysis, identifying teaching objectives; teaching methods and techniques; instructional aides and criteria and performance based evaluations. One of the four elements of instruction required by the Florida Fire Fighter Standards Council for Pre-Officer eligibility. Prerequisite: ENC 1101. (3 hr. lecture)

FFP2741**Fire Service Instructor (Course Design)****3 credits**

Fire Service Instructor (Course Design) emphasizes techniques that will assist the Fire Service Instructor develop skills in curriculum development including the importance of an active training program. Students will learn the principles of effective curriculum design for adult and student centered learning. They will understand how to design courses and units related to learning, teaching, performance, and behavioral objectives. The State Fire Marshal, Bureau of Fire Standards and Training require this course for instructor II and III certification. This certification enables the instructor to teach higher-level courses (i.e.: Fire Officer I and II, Fire Inspector.). (3 hr. lecture)

FFP2781**Municipal Fire Administration****3 credits**

Administrative procedures necessary for the efficient appraisals, improvement, and imple-

mentation of fire protection services of a city/county government. The interrelationships 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)

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)

FOT2802**Introduction to Translation****3 credits**

Develops the ability to do accurate written translations in general. Includes the application of contrastive structures and grammar rules of source and target languages; translation of idiomatic expressions and an introduction to legal and technical vocabulary; the use of bilingual dictionaries and glossaries. The demands of translation as a profession and its code of ethics are stressed. (3 hr. lecture)

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)

FOT2821**Introduction to Interpretation****3 credits**

The acquisition and development of the abilities to convert an oral message from the source language into another consecutive oral message in the target language. (3 hr. lecture)

FOT2822**Court Interpreting Skills 3 credits**

Continuation of FOT 2821 including deepening and broadening the type of exercise of FOT 2821 and gradual introduction to simultaneous interpretation. Oral translation with notes and conversations, ratio or tape passages. Extensive practice in the process of hearing, understanding, remembering and speaking for simultaneous oral interpretation. Participation in an internship or practical training program. (3 hr. lecture)

FOT2823**Consecutive Interpretation 3 credits**

This course builds on the foundation established in Introduction to Interpretation (FOT2810) and acquaints the students with the practice and application of consecutive interpretation (English/Spanish). Development of active listening, concentration and retention skills as well as the ability to perceive essential meaning for subsequent recall is emphasized. This course also explores basic note taking techniques and provides practice in monolateral and bilateral consecutive interpretation. Prerequisite: FOT 2821. (3 hr. lecture)

FOT2824**Simultaneous****Interpretation Strategies 3 credits**

This course builds on the foundation established in previous interpretation courses while introducing the students to simultaneous interpretation (English/Spanish) by providing preparatory exercises such as shadowing, lagging, paraphrasing etc. Through a variety of recorded materials, students practice the simultaneous interpretation mode so as to acquire smooth delivery techniques while forming good professional habits. Prerequisites: FOT 2821, 2823. (3 hr. lecture)

FOT2825**Computer Assisted****Translation 1 3 credits**

Examines the types of translation software currently used in the translation/interpretation profession as well as the commercial use and business application of these. Description and application of tools such as translation memory, electronic dictionaries, desktop-publishing systems, and website translation technologies are covered. Prerequisite: CGS 1060. (3 hr. lecture)

FOT2827**Medical Translation 3 credits**

This course further develops translation strategies while familiarizing the student with the characteristics of medical and health-related discourse in both English and Spanish. Included is the acquisition of medical and hospital/clinic terminology and the analysis of related linguistic structures so students can engage in translating texts from English into foreign language and vice versa. Prerequisites: FOT 2802, 2803. (3 hr. lecture)

FOT2828**Medical Interpretation 3 credits**

This course develops the techniques, practices and knowledge needed to function

as interpreters in a medical environment.

Interpreting models such as sight, consecutive and simultaneous - as they apply to the medical setting - are revisited. Medical vocabulary/terminology in English and foreign language as well as code of ethics will also be introduced. Prerequisites: FOT 2821, 2823, and FOT 2824 (recommended). (3 hr. lecture)

FOT2829**Financial and****Business Translation 3 credits**

This course further develops translation strategies while familiarizing the students with the characteristics of financial and business discourse in both English and Spanish. Included is the learning of special terminology and related linguistic structures so students can engage in the translation of texts containing financial/business or economic discourse from English into Spanish and vice versa. As in legal translation, students engage in terminology research and glossary development through the use of specialized bilingual financial and business dictionaries and other pertinent sources. Prerequisites: FOT 2802, 2803. (3 hr. lecture)

French Language 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 across-cultural awareness. Emphasis on practical vocabulary and accurate pronunciation. Practice in class and laboratory in understanding and using the spoken language; reading and writing with progressive grammatical explanations. (4 hr. lecture)

FRE1121**Elementary French 2 4 credits**

A continuation of FRE 1120. A proficiency-oriented course emphasizing the mastery of the basic skills of the language. Prerequisite: FRE 1120. (4 hr. lecture)

FRE1170**France Travel Study 3 credits**

Combines the study of French with travel to France or 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)

FRE2220**Intermediate French 1 4 credits**

Students will learn to understand, speak, read, write, and gain cultural awareness of french through a systematic review (using an integrated, multimedia approach) of reading grammar, and writing skills with emphasis on oral and written communication. Prerequisite: FRE 1121 or equivalent. (4 hr. lecture)

FRE2221**Intermediate French 2 4 credits**

Understanding, speaking, reading writing and cross-cultural awareness, through a systematic review of reading and writing skills with emphasis on oral as well as written expression. Prerequisite: FRE 2220. (4 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)

FRW210**Selected Readings in****French Literature 1 3 credits**

A study of outstanding works authors, genres, or literary currents in France. (3 hr. lecture)

FRW211**Selected Readings in****French Literature 2 3 credits**

A study of outstanding works, authors, genres, or literary currents of French expression in francophone nations or areas. (3 hr. lecture)

Funeral Services Education

FSE1000**Introduction to****Funeral Services 3 credits**

The principles of funeral service and its history. A study of the ethical obligations and fundamental requirements, involving skill, aptitudes, and qualifications of funeral directors. A.S. degree credit only. (3 hr. lecture)

FSE1080**Funeral Law****3 credits**

Federal, state and municipal statutes, rules, regulations and ordinances pertaining to funeral service; torts, contract and administrative laws, and financial disclosures pertinent to funeral operations and management. A.S. degree credit only. (3 hr. lecture)

FSE1105**Funeral Service Chemistry 3 credits**

A survey of the basic principles of chemistry as they relate to funeral service. Especially stressed are the chemical principles and precautions involved in sanitation, disinfection, public health and embalming practice. A.S. degree credit only. (3 hr. lecture)

FSE2060**Funeral Directing 3 credits**

Study of various religious, fraternal, military, traditional, nontraditional and humanistic variations of funeral ceremonies, including cultural, ethnic and geographic customs. A.S. degree credit only. (3 hr. lecture)

FSE2061**Thanatology 3 credits**

Psychological and sociological dynamics of death, dying, and bereavement. Dynamics of counseling demonstrated through role-playing video critique and analysis. Prerequisite: FSE 1000. A.S. degree credit only. (3 hr. lecture)

FSE2100**Embalming 1 3 credits**

Orientation to basic embalming skills, case analysis, chemical composition, post-mortem changes, instrumentation and disinfection. Corequisite: FSE 2100L. A.S. degree credit only. (3 hr. lecture)

FSE2100L**Embalming 1 Lab 2 credits**

Laboratory for FSE 2100. Laboratory fee. Corequisite: FSE 2100. A.S. degree credit only. (4 hr. lab)

FSE2106**Funeral Service Microbiology 3 credits**

This course is a survey of the basic principles of microbiology as it relates to Funeral Science. It emphasizes the importance of sanitation, disinfection, public health in the embalming practice. (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 accruals. Inventory costing models depreciation models and payroll accounting are included. Applications to funeral home operations are made throughout the subject material. A.S. degree credit only. (3 hr. lecture)

FSE2201**Funeral Home Operations 3 credits**

Theoretical and practical training in all areas of funeral home operations; laboratory experience in merchandising and funeral arrangements. Corequisite: FSE 2200. A.S. degree credit only. (3 hr. lecture/lab)

FSE2202**Funeral Service Business Management 3 credits**

The role and function of an effective manager is explored. Emphasis is placed on the management functions of planning, organizing, motivating, directing, and controlling. How to purchase a small business is also covered. A.S. degree credit only. (3 hr. lecture)

FSE2203**Funeral Home Application 4 credits**

This is a preparation course for funeral directing. Students will learn taking first calls, buying and selling of merchandise, funeral arranging, conducting funerals, job interviewing, computer software, and resume writing. Prerequisites: FSE 2060, 2061, 2200, 2202. A.S. degree credit only. (4 hr. lecture)

FSE2931**Funeral Service Professional Review 1 1 credit**

This course is for the Funeral Science student who is graduating and taking the National Board Examination at the end of the semester that this course is being offered. The course is a review of the science section of the Funeral Science courses in order to help prepare the

student for the National Board Examination. Prerequisite: Permission of the department is required. (2 hr. lab)

FSE2932**Funeral Science Professional Review 2 1 credit**

This course is for the funeral Science student who is graduating and taking the National Board Examination at the end of the semester that this course is being offered. The course is a review of the Arts section of the Funeral Science courses in order to help prepare the student for the National Board Examination. Prerequisite: Permission of the department is required. (2 hr. lab)

General Business

GEB1011**Principles of Business 3 credits**

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)

GEB2112**Introduction to Entrepreneurship 3 credits**

This is a foundation course in the modern treatment of business entrepreneurship. Students will learn the elements of start-up/buy-out, franchising, business plans, marketing plans, human resources, financial planning, legal forms, products/services, selling, advertising, management policies, accounting systems, tax issues, capital management, computers, risk management, and business ethics. (3 hr. lecture)

GEB2350**Introduction to International Business 3 credits**

Provides an overview of the cultural environment of international business and the institution which affects business today. International economic, political, and trade issues are analyzed in the context of socioeconomic goals and policies of the nations involved. (3 hr. lecture)

GEB2893**Strategic & 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 are an 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 discreet geocoding and geoconferencing, data input, spatial databases, creation of data and the use of ArcView Network Analyst Extension. (3 hr. lecture; 2 hr. lab)

GIS2046**Advanced Geographic Information Systems****4 credits**

The final course in 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

ESC1000**General Education Earth Science****3 credits**

Selected concepts and principles of earth science taken from the areas of astronomy, geology, meteorology and oceanography. (3 hr. lecture)

ESC1000L**General Education Earth Science Lab****1 credit**

Optional laboratory for GLY 1001. Corequisite: GLY 1001. Laboratory fee. (2 hr. lecture)

GLY1010**Physical Geology****3 credits**

The fundamental concepts of geological process and structures. Plate tectonics is integral to this course which is intended for both majors and non-majors. Majors are strongly advised to take GLY 1010L. (3 hr. lecture)

GLY1010L**Physical Geology Laboratory****1 credit**

Laboratory for GLY 1010. Studies of common minerals and rocks and topographic and geologic maps along with aerial photography. Corequisite: GLY 1010. Laboratory fee. (2 hr. lab)

GLY1100**Historical Geology****3 credits**

This is a historical based course in geology. The student will learn about the history of the earth, the evolution of life, radiometric dating, and the history of modern geologic ideas on earth development. (3 hr. lecture)

GLY1100L**Historical Geology Laboratory****1 credit**

A laboratory course designed to accompany GLY1100 in the study of the History of the Earth. The student will learn the fundamentals of fossil identification, evolution, calculation of radiometric dates, interpretation of the stratigraphic record, and the role of plate tectonics in the evolution of life. (2 hr. lab)

GLY3171**Geomorphology of the United States****3 credits**

This course involves a study of the origin, evolution and description of landforms that comprise the geomorphic features of the United States. Specific competencies include the study of the major geological processes, agents that form and fashion land, the examination of present day landforms, and the concepts of landform evolution. This course will include the examination of the physiographic provinces of the United States, such as the Appalachian highlands, the Rocky Mountains, Alaska and the Hawaiian Islands. Prerequisite: GLY1010. (3 hr. lecture)

GLY3884**Environmental Geology****3 credits**

A study of the application of geology to the interactions between people and their physical environment. Earth materials and processes are presented in reference to hazards and concerns that are created naturally and/or by human activities. The role of humans as geologic agents, resource conservation, ecosystem management, and the problems that result from upsetting the established equilibrium of geologic systems are illustrated. Prerequisite: GLY 1010; corequisite: GLY 3380L. (3 hr. lecture)

GLY3884L**Environmental Geology Laboratory****1 credit**

A laboratory course designed to accompany GLY3884 in the study of the major concepts and principles in Environmental Geology. It is designed for students enrolled in the Baccalaureate Degree Program in Science Education with a major in Earth Science. (2 hr. lab)

GLY4045**Moons, Planets & Meteors:
An Introduction to
Planetary Science****3 credits**

An upper level course that explores both modern and historical views on the origins of meteorites, the moon, the planets and other bodies of the solar system. The importance of space science as a tool in the study of earth science and the importance of earth science as a tool in the exploration of the universe is discussed. (3 hr. lecture)

GLY4700C**Geomorphology****4 credits**

This course is a study of planetary surfaces and processes that create landforms. The students will focus on survey of geomorphic forms and the processes that originated them, application of remote sensing and GIS/GPS technology to study geomorphological processes, analytical skills including field experience, and practical applications, especially to geological hazards. (3 hr. lecture, 1 hr. lab)

German Language**GER1120****Elementary German 1****4 credits**

An integrated (multi-media) approach to acquire proficiency in the basic skills (of the language)-listening/understanding, speaking, reading, writing, and cross-cultural awareness. Emphasis on practical vocabulary and accurate pronunciation. Practice class and laboratory in understanding and using the spoken language; reading and writing with progressive grammatical explanations. (4 hr. lecture)

GER1121**Elementary German 2****4 credits**

A continuation of GER 1120. A proficiency-oriented course emphasizing the mastery of the basic skills of the language. Prerequisite: GER 1120. (4 hr. lecture)

GER2220**Intermediate German 1****4 credits**

Students will understand, speak, read, write, and gain cultural awareness of German through a systematic review (using an integrated, multimedia approach) of reading, grammar, and writing skills with emphasis on oral and written communication. Prerequisite: GER 1121 or equivalent. (4 hr. lecture)

GER2221**Intermediate German 2****4 credits**

Understanding, speaking, reading, writing and cross-cultural awareness, through a systematic review of reading and writing skills with emphasis on oral as well as written expression. Prerequisite: GER 2220. (4 hr. lecture)

GER2240**Intermediate German
Conversation &
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 &
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 desirable. Special fee. (2 hr. lecture; 4 hr. lab)

GRA1113C**Graphic Design 2****4 credits**

Studio projects, in which the student creates graphic communication designs (ads, brochures, TV graphics, illustrations, etc.) using contemporary mediums, techniques and tools. Prerequisite: GRA 1111C. Special fee. (2 hr. lecture; 4 hr. lab)

GRA1206C**Principles of Typography****4 credits**

Printer's measurements and arithmetic, distinguishing typesetting from typography, type classification and identification, 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, 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 preplanning necessary in the reproduction of printing. Prerequisite: GRA 1422. (2 hr. lecture; 2 hr. lab)

GRA1750**Introduction to Graphic
Internet Technology****3 credits**

Introduce Internet architecture, addressing domain names, e-mail, Web browsers, and Internet safety and security. Surf the World Wide Web with four standard web browsers, send and receive e-mail, download files with File Transfer Protocol, search for information using a number of different search engines, set up a Web page, and use HTML programming—including formatting, graphics, lists, forms, tables and backgrounds. Introduce the basic concepts of client/server computing. Examine components, technologies, and system standards involved in client/server computing. This course will also introduce students to the practices and procedures for planning 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 add several elements from other graphic creation programs and combine those elements in an attractive and functional manner. This course will also expand students' concepts of the practices and procedures for planning Web sites. Prerequisites: GRA 1750, 2577C. Special fee. (2 hr. lecture; 4 hr. lab)

GRA1752

Graphic Imaging 1 4 credits
Introduce students to the hardware and software necessary to produce static and animated images. Students are introduced to the use of digital cameras and scanners to produce images suitable for viewing on all computer platforms. Students are also introduced to creative and production aspects of digital imaging for image databases, GIF images, and vector based dynamic graphics. Required for students in the Graphic Internet Technology degree. Recommended for publishing, web design or advertising industry personnel who wish an introduction to Internet Imaging. Prerequisites: GRA 1750, 2577C. Special fee. (2 hr. lecture; 4 hr. lab)

GRA1753

Graphic Imaging 2 4 credits
Create and prepare dynamic graphics, SWF interactive movies, and Quick Time player video for the internet. Produce vector and pixel based professional web graphics to standards for distribution on or use on the Internet. Students are introduced to vector and pixel based applications used to produce animated images and movies for a controlled length of time. Students learn pre-planning, storyboarding, and production of dynamic graphics with time based application. Use creative approaches to solve client requirements with interactivity. This is a required course for students in the Graphic Internet Technology degree. Recommended for publishing, web design or advertising industry personnel who wish to produce vector and pixel based professional web graphics. Prerequisite: GRA 1752. Special fee. (2 hr. lecture; 4 hr. lab)

GRA1754

Graphic Interface Design 2 4 credits
Introduce a comprehensive process of Web Page Design and Internet Architecture. Continue to teach students the design process and how it functions. Students will learn how to create complex commercial sites for the World Wide Web with a standard Web creation application and an image editing application and combine those elements in an attractive and functional manner. This course will also expand students' concepts of the practices and procedures for planning elaborate 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 extensive handouts and audiovisual presentations. Lab classes consist of pfa 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 and be changing every day because of advancement in technology as well as improving the employability of Graphic Arts Technology and Graphic design Technology majors. Lab classes consist of projects designed to highlight the features of software programs. Prerequisite: GRA 2156C. (2 hr. lecture; 4 hr. lab)

GRA2156C

Electronic Photoshop 4 credits
This course is designed for the experienced electronic publisher, graphic designer or graphic arts person who wishes to integrate black and white and color photography into their page layout or paint programs. It is also suggested for Graphic Art, Graphic Design, and Photography majors at MDC. Students will learn the basics of desk top scanning, retouching, color correcting, pre-proofing, correcting again, and output to laser printers, color printers, and image-setters. Corequisite: GRA 1280C. Laboratory fee. (2 hr. lecture; 4 hr. lab)

GRA2162C

3D Computer Animation 1 4 credits
Students will learn fundamentals of building computer based 3D models for Film, TV, and Video Gaming applications. Students will also learn technical and conceptual skills that will enable them to creatively express and develop their personal ideas and feelings. The students will also acquire a fundamental understanding of 3D modeling. Prerequisite: ART 2600C or GRA 2156C or VIC 1205C. (2 hr. lecture; 4 hr. lab)

GRA2168C

3D Computer Animation 2 4 credits
Students will learn fundamental skills of animation and animating 3D computer generated models for Film, TV, and Video Gaming applications, using the MAYA animation software. Students will also learn to implement basic dynamic effects along with modeling, texturing and lighting. Prerequisite: GRA 2162C. Laboratory fee. (2 hr. lecture; 2 hr. lab)

GRA2190C

Communications Design 1 3-4 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 the Graphic Arts students to integrate black and white color photography into their page layout or paint program. Students will learn the requirements of desktop drum and flatbed scanning, retouching, color correcting, pre-proofing, correcting again and output to laser printers, color printers, and image-setters. Prerequisites: GRA 2156C. Special fee. (2 hr. lecture; 4 hr. lab)

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, comprehensive, mechanical camera, and stripping. Prerequisite: GRA 2545C. Laboratory fee. (2 hr. lecture; 4 hr. lab)

GRA2727**Streaming****Media Creation****4 credits**

Create, edit, and stream digital media from a server for distribution on the Internet. Provides a logical organization for understanding the benefits and limitations of streaming media. Enable students to use digital media cameras, digital media editing programs to produce creative presentations or portfolios for streaming distribution on the Internet. Students will learn the basic concepts of streaming media such as: how to prepare media for various bandwidths, how and when to use transitions, how to prepare 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 1753. Special fee. (2 hr. lecture; 4 hr. lab)

GRA2755**Graphic Interface****Design 3****4 credits**

This advanced course teaches students a more comprehensive process of preparing and implementing CGI scripts into web pages. This is an advanced design and development course, which teaches the creation of Active Server Pages using an application that quickly deploys database-driven e-commerce applications. Using a drag-and-drop interface and sophisticated wizards, the student builds web-based applications that access and update data in real-time while working across all major browsers. Create safe, fully customizable online stores that are scalable and simple to maintain. Develop stores quickly using built-in tax and shipping calculations, sophisticated merchandising options for including discount and fee calculations, and automatic order confirmations. Prerequisite: GRA 1754. Special fee. (2 hr. lecture; 4 hr. lab)

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 1753, 2577C. Special fee. (2 hr. lecture; 4 hour 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 HAI 2340. (3 hr. lecture)

HAT2802**Contrastive Analysis:****Haitian/Creole****3 credits**

This course compares/contrasts linguistic features and characteristics of both the English and Haitian/Creole languages. Aspects of comparison/contrast include historical backgrounds, phonological systems, morphological systems, syntax, and semantics. Prerequisite: Adequate fluency in Haitian-Creole (determined by department Haitian-Creole exam) and English (determined by CPT) (3 hr. lecture)

HCW2020**Selected Readings in****Haitian-Creole Literature 3****3 credits**

This course will emphasize reading and analyzing Haitian-Creole literature in a historical context. A variety of literature will be read and discussed in order to gain an understanding of Haitian-Creole and Haitian culture, the history of Haiti, and ways which the literature portrays the country of Haiti and its inhabitants. Prerequisite: Fluency in Haitian-Creole as determined by the Haitian-Creole placement exam. (3 hr. lecture)

Health Information Management

HIM1000**Introduction to Health Information Management****2 credits**

The role and functions of a health information technician. Health information is essential to our health care delivery system. The medical record, in manual or automated form, houses the health information that describes all aspects of patient care. The structure, organization, and maintenance of the medical record are discussed. The organization and mission of the American Health Information Management Association are explored. The student also learns the organization and function of various types of health care facilities and the responsibilities of national, state and local health agencies. (2 hr. lecture)

HIM1110**Health Information Management and Data Collection****2 credits**

This course is designed to provide the skills necessary to function in a health information management department. Students will learn health record data collection and informatics. The various components and approaches of the electronic health record are discussed. Prerequisite: HIM 1000, 2472; corequisite: HIM 1110L. A.S. degree credit only. (2 hr. lecture)

HIM1110L**Health Information Management Data Collection Lab****3 credits**

This course is designed to apply basic requirements imposed by regulatory

agencies to health record data. Students will learn how clinical data repositories store health information. Concepts relating to confidentiality, ethics, and release of information will be applied. Prerequisite: HIM 1000, 2472; corequisite HIM 1110. A.S. degree credit only. (6 hr. lab)

HIM1300**Health Care Facility and Delivery Systems****2 credits**

This course will examine healthcare complexities, function of various types of health facilities, accreditation standards, Medicare law, and the American health delivery system. Students will learn the components of Medicare, Medicaid, Health Insurance Organizations (HMO's), and the federal laws that govern them. A.S. degree credit only. (2 hr. lecture)

HIM1800**Professional Practice Experience 1****2 credits**

This course will provide the student with a supervised professional practice experience in a health care setting, utilizing electronic health records and reports to manage health information data. Students will learn an in-depth knowledge of applying the minimum basic requirements for handling records imposed by regulatory agencies. Prerequisite: HIM 1000; corequisite: HIM 1110, 1000L. A.S. degree credit only. (6 hr. lab/clinic)

HIM2012**Legal Aspects of Health Care****2 credits**

This course provides basic knowledge of the United States of America court system and the interconnection between the health care system and the federal government. The student will learn concepts relating to Health Insurance Portability Accountability Act (HIPAA), ethics, release of health information, record retention, and the legalities of electronic health records. Prerequisite: ENC 1101. A.S. degree credit only. (2 hr. lecture)

HIM2211C**Health Information Technologies****2 credits**

This course is designed to examine computer technology used to collect and store health information. The student will learn a variety of applications used to maintain and secure health care data. Prerequisites: HIM 1110, 1110L, and 1800. A.S. degree credit only. (1 hr. lecture; 2 hr. lab)

HIM2212C**Electronic Health Record****3 credits**

This course reviews the current trends and preparation implementing the electronic health record and reviews documentation requirements for a variety of healthcare settings. Students will learn best practices, problem-solve associated issues, and directly participate in the transitions of electronic health records. Prerequisite: HIM 2211C. (1 hr. lecture; 2 hr. lab)

HIM2214C**Health Statistics****2 credits**

This course will focus on the definitions for analysis, interpretation, and display of healthcare data. The student will learn the acceptable terminology and basic definitions for reporting health statistics. Emphasis is placed on the use of the formulas necessary for computing standard rates, percentages, and averages from patient data. Prerequisites: HIM 1110, 1110L; corequisite: HIM 2512C. (1 hr. lecture; 2 hr. lab)

HIM2222**ICD Coding Systems****2 credits**

This course is designed to teach the current edition of International Classification of Diseases and Procedures codes. Students will learn code convention and format, usage of anatomy, physiology, and clinical disease processes. Pharmacology, present on admission indicators, correct code assignment and sequencing will be discussed. Prerequisites: BSC 2085, 2085L and HIM 2472; corequisite: HIM 2222L. A.S. degree credit only. (2 hr. lecture)

HIM2222L**ICD Coding Systems Laboratory****3 credits**

This course is designed to apply diagnoses and operations into numerical designations (codes) utilizing the International Classification of Diseases and Procedures. Students will learn correct sequencing, analysis of clinical disease processes, diagnosis and procedural terminology, and application of pharmacology in current coding systems. Encoding software is utilized. Prerequisites: BSC 2085, 2085L, and HIM 2472; corequisite: HIM 2222. A.S. degree credit only. Laboratory fee. (6 hr. lab)

HIM2234**Advanced Coding & Reimbursement Systems****2 credits**

This course is designed to apply the fundamentals of the Prospective Payment Systems as it applies to coding and reimbursement. The student will learn documentation criteria, validation reports of coded data, health record for compliance, and optimum reimbursement under current payment methodologies. Prerequisite: HIM 2222, 2222L; corequisite: HIM2234L. A.S. degree credit only. (2 hr. lecture)

HIM2234L**Advanced Coding & Reimbursement Systems Laboratory****1 credit**

This course is designed to apply and compute Prospective Payment Systems categories. Students will learn to apply health record documentation to identify and validate correct code and payment assignments. Focus is on computation of MS-DRGs, APCs and Case-Mix Index using encoderm, grouper, and electronic billing software for reimbursement. Prerequisites: HIM 2222, 2222L; corequisite: HIM 2234. A.S. degree credit only. (2 hr. lab)

HIM2253C**Current Procedural Terminology/CPT-4****2 credits**

This course provides an in-depth knowledge of coding and reporting using Current Procedural Terminology classification. Students will learn to read and interpret ambulatory health record documentation to classify and assign services and procures codes and use of encoder and grouper software. HCPCS, APCs, and RBRVS will be discussed. Prerequisites: BSC 2085, 2085L and HIM 2472. A.S. degree credit only. (1 hr. lecture; 2 hr. lab)

HIM2272C**Health Insurance Billing & Reimbursement****2 credits**

The health insurance billing process and the use of the HCFA-1500 and UB-92 claim forms. The concepts and methodologies of third party payers with focus on Medicare, Medicaid, Blue Cross/ Blue shield, commercial insurance, Worker's compensations and self-pay. The impact of the Prospective Payment System on reimbursement to the health care facility and the interrelationship of coding, Diagnostic Related Groups (DRGs), Ambulatory Patient Classifications (APCs) and health care providers are explored. Prerequisites: HIM 2234, HIM 2234L. (2 hr. lecture)

HIM2400C**Diversified Non-Hospital Health Records****2 credits**

This course emphasizes the importance of quality record-keeping practices, data flow, and management of health information systems in a non-acute care setting. The student will learn the documentation requirements based on Federal and State statutes, accreditation standards, Medicare Conditions of Participation, payment systems, funding, Health Insurance Portability Accountability Act, and the evolution of the electronic health record. A.S. degree credit only. (1 hr. lecture; 2 hr. lab)

HIM2430**Basic Principles of Disease 1****2 credits**

Disease, its etiology, and pathophysiologic nature. Medical complications and manifestations of disease states also included. Prerequisite: BSC 2085, 2085L, 2086, 2086L. A.S. degree credit only. (2 hr. lecture)

HIM2431**Basic Principles of Disease 2****2 credits**

The most common diagnoses encountered in each major body system and the laboratory or other diagnostic tests used to confirm or rule out those diagnoses current pharmacological treatments are explored. Prerequisite: HIM 2430. (2 hr. lecture)

HIM2432**Pathophysiology and Pharmacology****3 credits**

This course provides an in-depth knowledge of disease, its etiology, medical complications, and pathophysiologic nature. Students will learn laboratory and other diagnostic tests

used to confirm or rule out those diagnoses addressed. Current pharmacological treatments are explored with review and interpretation of health record data. Prerequisites: BSC 2085, 2085L, HIM 2472. A.S. degree credit only. (3 hr. lecture)

HIM2472**Medical Terminology****3 credits**

Analysis of medical terms through learning basic roots, prefixes and suffixes permitting the student to have a working knowledge of the language of medicine. Prerequisite: Permission of department chairperson. A.S. degree credit only. (3 hr. lecture)

HIM2500**Data Management & Quality Assessment****2 credits**

The basic principles of quality assessment: quality improvement and utilization review. The accreditation process, risk management, managed care models, and the methodologies and relationships of these key areas within a health care facility are emphasized. Prerequisites: HIM 1110, 1110L; Corequisite: HIM 2500L. (2 hr. lecture)

HIM2500L**Data Management & Quality Assessment Laboratory****1 credit**

The application of the basic principles of quality assessment: quality improvement and utilization review. The student will learn to generate models for the evaluation of different types of medical care. Activities will center on the accreditation process, managed care, and risk management. The methodologies and relationships of these key areas within a health care facility are emphasized. Prerequisites: HIM 1110, 1110L; corequisite: HIM 2500. (2 hr. lab)

HIM2512C**Supervision & Organization for Health Information Management****2 credits**

This course will review the basic principles of management and organizational life in a health information management department and the interrelationships within the health care organization. Emphasis will be placed on the supervisory role of the health information professional, including basic motivation and communication principles essential to the practice of health information management. The student will identify and use specific motivational and communication techniques in health information supervision. Prerequisites: HIM 1110, 1110L; corequisites: HIM2500, 2500L, 2810. (1 hr. lecture; 2 hr. lab)

HIM2810**Professional Practice Experience 2****2 credits**

This course is a supervised professional practice experience in a health care setting utilizing health records and reports to perform medical coding functions. Students will learn to assign Medicare Severity-Diagnosis Related Groups/Ambulatory Payment Classifications using the organization's information systems,

encoder and grouper software. Sequencing of International Classification of Disease (ICD) and Current Procedural Terminology (CPT) coding systems will be discussed. Prerequisite: HIM 2222; corequisite: HIM 2234, 2234L. A.S. degree credit only. (6 hr. lab/clinic)

HIM2820**Seminar and Professional Practice Experience 3****2 credits**

This course is designed to provide students with structured learning experiences necessary for them to enter the health information management field. Students will learn preparation skills for the national examination by analyzing major examination topics offered in curriculum. A professional practice experience will be a component of this course. Prerequisite: HIM 2810; corequisites: HIM 2500, 2500L. A.S. degree credit only. (6 hr. lab/clinic)

Health Science

HSC1180**Exploration of Alternative Medicine & 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)

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**Basic Emergency Care****3 credits**

Designed to provide opportunities to develop, practice, and display skills concerning emergency care and the prevention of accidents. This course meets the American Heart Association Healthcare Provider Cardiopulmonary Resuscitation/automated External Defibrillation and the American Red Cross for Standard First Aid Certification requirement. Special fee. (3 hr. lecture)

HSC2404**Instructor's Training****First Aid & CPR****3 credits**

Designed to improve the performance skills, techniques, and knowledge as well as develop competent teaching skills in First Aid and cardiopulmonary resuscitation. This course meets the American Red Cross Instructor Certification Requirements for Standard First Aid and Personal Safety and Basic Life Saving Cardiopulmonary Resuscitation. Special fee. Prerequisite: HSC 2400 or certification in American Red Cross Standard First Aid and Personal Safety and Basic Life Saving Cardiopulmonary Resuscitation. maybe repeated for credit. (2 hr. lecture; 2 hr. lab)

HSC3057**Introduction to Research Methods in Health Care** 3 credits

This course will provide an overview of research methods used in healthcare. Students will learn the use of effective inquiry through research strategies that address healthcare issues with logical and observational rigor. Students will learn the rudiments relative to the evaluation of research literature, research design and the application of research methods to the clinical setting. (3 hr. lecture)

HSC3131**Client Education in Health Care** 3 credits

This course focuses on the delivery of client specific health education. The student will learn to develop the attitudes, knowledge, and skills required for successful education of patients. The student will learn to assess curriculum, training objectives, and educational experiences, and serve in the best interest of educating the patient. (3 hr. lecture)

HSC3181**Alternative Medicine Strategies** 3 credits

This course will introduce students to new approaches to health and healing. The student will learn the various medicines practiced around the world, collectively referred to as complementary and alternative medicines (CAM). Students will learn epidemiology, usage, and terminology specific to these practices (3 hr. lecture)

HSC3243**Teaching Skills for Health Care** 3 credits

This course emphasizes significant problems instructors have related to content and design of curricula or courses. Students will learn the theoretical underpinnings of teaching and learning in health science disciplines from a variety of perspectives - educational, psychological, developmental, and social. (3 hr. lecture)

HSC3701**Leadership and Management in Healthcare** 3 credits

This is a leadership and management course that will examine leadership as a process with a tri-fold focus: the leader, the followers, and the situation. The student will learn leadership theories and build leadership skills. (3 hr. lecture)

HSC4942**Community Service Learning Practicum** 3 credits

This course is designed to engage students in meaningful healthcare related community service learning activities. Students will learn to explore new collaborations in service-learning, cultural diversity and community healthcare development. These experiences will help prepare them for lives as civically-engaged local, national, and global citizens. (3 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

Students will learn of the history of the United States to 1877 by examining the founding, growth, and development of America from the colonial era through Reconstruction. (3 hr. lecture)

AMH2020**History of the US Since 1877** 3 credits

This course focuses on the social, economic, cultural, and political developments in the United States since 1877. The student will gain knowledge of changes and continuities in the history of the United States since the late nineteenth century. (3 hr. lecture)

AMH2035**Recent American History-Since 1945** 3 credits

The internal development of the United States and the role of the U.S. in world affairs since World War II. (3 hr. lecture)

AMH2070**Florida History** 3 credits

Florida from the Spanish period to the present with emphasis on the modern development of natural resources, urbanization, industry, culture and tourism. (3 hr. lecture)

AMH2079**History of South Florida** 3 credits

A study of the history of South Florida (Lake Okechobee south to Key West) including geological foundations exploration, settlement and contemporary cultural trends. (3 hr. lecture)

AMH2091**Afro-American History** 3 credits

A survey, including the African background, of the Afro-American in the United States history, with emphasis on their economic, political and cultural development. (3 hr. lecture)

EUH2030**Contemporary Europe 1** 3 credits

This course examines the major social, economic, political and diplomatic development of European History since 1870. Special emphasis is placed on the pre-and post-war internal political structures of the major European States: the evolution of the various working class movements, communism, fascism, the great international crisis inside Europe, the two world wars and the two subsequent reorganizations of the continent, the cold war, decolonization and the emergence of a new order. (3 hr. lecture)

EUH2032**History of the Holocaust** 3 credits

This is a foundation course in Holocaust Studies. Students will learn the historical origins, execution and consequences of the Holocaust. This course also examines the Holocaust's place in context of genocides past and present. (3 hr. lecture)

EUH2068**History of Russia from 1917** 3 credits

Survey of Russian History since 1917. Emphasis is given to the nature and causes of the 1917 revolution and the impact of communist ideology on the development of the U.S.S.R. and on its relations with the rest of the world. (3 hr. lecture)

LAH2021**Colonial Latin America** 3 credits

Emphasis is initially given to the geography of Latin America and to the Indian civilizations of that region. The focus then shifts to the Iberian states as colonizing powers and finally to the social and economic institutions of the colonial period, including the Wars of Independence to 1825. (3 hr. lecture)

LAH2022**Latin American Republics** 3 credits

Focus is on the national development of the Latin American Republics since 1825, especially the internal problems of these nations, their role in the Pan American movement, and the role of Latin America in world affairs. (3 hr. lecture)

LAH2023**History of the Caribbean** 3 credits

This course introduces students to the economic social, political, and cultural history of the Caribbean and its peoples. Students will learn of the changes and continuities that have affected Caribbean development. (3 hr. lecture)

LAH2025**History of Cuba** 3 credits

Historical analysis of the development of Cuban society, its culture and institutions. (3 hr. lecture)

WOH2003**History of Genocide 3 credits**

This course is designed to explore the history, causes, and consequences of genocide through identification of the patterns of intentional mass killings. Students will learn via case studies the characteristics of past and current incidents characterized as genocide. (3 hr. lecture)

WOH2012**History of World Civilization to 1789 3 credits**

This course covers the history of World Civilizations from the prehistoric period to the 18th century. Students will learn the major political, social, economic, and cultural structures of civilizations and their development through 1789. (3 hr. lecture)

WOH2022**History of World Civilization from 1789 3 credits**

The student will examine the historical development of world civilizations since 1789. Students will learn of historical processes and developments in social, cultural, political, and economic contexts since the 18th century. (3 hr. lecture)

Hospitality Management

HFT1000**Introduction to Hospitality 3 credits**

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 Resources 3 credits**

Provides information relating to the recruitment and selection of new staff, the handling of difficult employees, motivating employees and conducting performance evaluations. (3 hr. lecture)

HFT1212**Safety and Sanitation 3 credits**

The student will relate the principles and practices of safety and sanitation to the hospitality industry. Major topics are scientific rationales for safety and sanitation procedures, safe facilities, causes of food borne illnesses and preventive measures, sanitation practices, and safety regulations. Special fee. (3 hr. lecture)

HFT1220**Communication/Supervisory Development 3 credits**

Explains the development and implementation of communication skills and group interaction techniques involved in basic interpersonal relationship in the hospitality industry. (3 hr. lecture)

HFT1300**Executive Housekeeping 3 credits**

Provides an overview of the fundamentals of housekeeping management. This course describes the management functions, 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 and to the local State of Florida, and federal regulations related to the sale and consumption of alcoholic beverages. Students will gain knowledge of the effects of alcohol and how to evaluate guests while avoiding difficult situations. Prerequisite: HFT 1000. Special fee. (1 hr. lecture)

HFT1631**Risk Management and Security 3 credits**

Provides the opportunity to examine issues surrounding the need for individualized security and surveillance programs, risk management and review systems. The student will examine a wide variety of security and safety equipment procedures and discuss guest protection, internal security for asset protection, and OSHA regulations that apply to lodging properties. (3 hr. lecture)

HFT1841**Dining Room Service 3 credits**

Provides students with the opportunity to acquire knowledge of advanced service techniques, including guest satisfaction, food, wine and beverage serving, types of menus, table service techniques, tableside cooking, napkin folding, table setting, safety, sanitation, emergency procedures, restaurant technology, and service styles. Students will gain experience in cash and non-cash handling, forecasting sales, and merchandising techniques. Corequisite: HFT 1000. (3 hr. lecture)

HFT1841L**Dining Room Service Laboratory 1 credit**

Supplements the classroom theory portion of Dining Room Service HFT 1841

by having students create, plan, develop and participate in an actual dining room service experience. The student will work in tandem with industry professionals, faculty, and other students to outline, design, and bring to fruition an event. The student will become certified in ServSafe prior to the culmination of the event, so as to be in compliance with State mandated statute 509.039. Corequisite: HFT 1841. Special fee. (2 hr. lab)

HFT1852**Menu and Facilities Planning 3 credits**

Provides students with the opportunity to engage in basic menu planning and how it is affected by demographics and customer base. Emphasis on cost concepts, pricing, menus, restaurant and kitchen design, space allocation, ergonomics, and safety and sanitation. Corequisite: HFT 1000. (3 hr. lecture)

HFT2223**Training/Supervisory Development 3 3 credits**

Considers the assessment and analysis of training needs, the systematic design of instruction, the evaluation of training programs, and management of the training programs, and 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)

HFT2250**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)

HFT2261**Restaurant Management 3 credits**

Familiarizes students with the general principles of food production management, work scheduling, and preparation supervision. Emphasis is placed on purchasing and financing, planning and equipping a kitchen, pricing and menu design, and marketing and promoting restaurants. Prerequisite: HFT 1000. (3 hr. lecture)

HFT2410**Front Office Procedures 4 credits**

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)

HFT2449**E-Business for the Hospitality Industry 3 credits**

Prepares student to manage information systems within their organizations. Emphasis is on selecting the right computer systems technology and maximizing available technology in order to promote and sell services. Introduces the use of automation in the broad hospitality sector and exams technological applications ranging from distribution systems (GDS, CRS and Web based), Property Management Systems, and EPOS systems to developments in telecommunications, and assesses their effect on the tourism sector. While a broad interpretation of both technology and tourism will be used, particular emphasis will be placed on the hospitality sector (i.e. hotels and catering) and on distribution technology. A combination of lecture, case studies, seminars, visiting lecture and lab sessions are used. Prerequisite: HFT 1000. (3 hr. lecture)

HFT2500**Marketing of Hospitality 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 segments of tourism and hospitality, sales and marketing methods, management, and strategic planning are major topics. Corequisite: HFT 1000. (3 hr. lecture)

HFT2773**Cruise Line Sales and Marketing 3 credits**

Provides an introduction to the sales and marketing functions of the cruise industry. Students will gain an understanding of how cruises lines position themselves in the competitive business environment and the sales and marketing techniques used to attract customers and group business. Students will gain an understanding of yield management and the issues surrounding travel agents during the sales process. Prerequisites: HFT 2772. (3 hr. lecture)

HFT2774**Shipboard Operations 3 credits**

Provides an understanding of shipboard operations on cruise ship and their relationship to the 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 line and how they relate to the general operations of the cruise ship itself. Students will acquire knowledge of pier, airport, ground services and hotel operations and create elements for cruise lines sales. Prerequisite: HFT 2772. (3 hr. lecture)

HFT2800**Food and Beverage Management 3 credits**

Provides a basic understanding of the principles of food production and service management, menu planning, serving, purchasing, labor, food/bar service and costs, storage, beverage management, sales promotions, entertainment, and liability laws. (3 hr. lecture)

HFT2801**Food & 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's and Family Services guidelines. Prerequisites: HUS 2493, PSB 2442. (3 hr. lecture)

HUS1423**Group Counseling in Substance Abuse 3 credits**

This course stresses development of effective group counseling leadership skills including organizing, implementing, and evaluating group counseling programs. The course includes actual group experiences. Prerequisite: PSB 2442. (3 hr. lecture)

HUS1428**Addiction Treatment Delivery Systems 3 credits**

This course is designed to survey the modalities of addiction treatment. The course will study federal and state systems as well as private-not-for-profit and private-for-profit programs. All of these will be described using examples drawn from local agencies, the diverse populations they serve, and the politics and economics of the systems. This course will also present a critical exploration of the history and theory defining problems of addiction treatment and the characteristics and career issues of an addiction treatment services worker. (3 hr. lecture)

HUS1440

Family Issues in Chemical Dependency 3 credits
This course is designed to analyze the effects of chemical abuse on the family system. Emphasis will be placed on family roles and dynamics; characteristics of children (including adult children) of chemical abusers; theories of co-dependence; and adaptations made individually and socially by family members. Critical issues and strategies in family treatment will be explored. (3 hr. lecture)

HUS1475

Addiction Counseling and the Law 3 credits
This course is designed to introduce addiction counseling students to the vocabulary, agencies and processes required to work with clients involved in both the criminal and civil justice systems. This course focuses on the relationship between the law and Human Services institutions, patterns of law-making and law-breaking, the legal structures and processes, and law as an instrument of public policy, social control and social change. The roles and functions of police, courts and correctional services will be surveyed. Common civil issues that affect clients in recovery will be explored. In addition this course will enable students to explain the legal basis for alcohol and other drug services in Florida. State statutes pertaining to alcohol and drugs and their administrative rules will be reviewed. Confidentiality requirements, compliance standards, and professional ethics will be presented. Prerequisite: PSB 2442. (3 hr. lecture)

HUS1480

HIV/AIDS and the Substance Abuser 3 credits
This course is designed to educate prospective addiction counselors for the evaluation, counseling and outreach skills necessary for working with HIV disease and AIDS. The course will explore not only how this disease affects one personally, but also how this pandemic has affected many psychosocial aspects of society. (3 hr. lecture)

HUS1991

Interpersonal Skills 3 credits
This course is designed to develop the skills necessary for the student to communicate with clients and to learn to use these skills effectively. The students will learn and practice communication skills needed to provide strength-based assessment, help families to set and reach goals, access specialized services, and make home visits. A.S. degree credit only. (3 hr. lecture)

HUS1992

Multicultural Perspectives 3 credits
The main goal of this course is to give students a working definition of culture and also to promote an understanding of the basic concepts and philosophy of cultural competence. It considers the psychological impact on the community of factors, such as sex, race, ethnicity, culture, religious perspectives,

socio-economic status, sexual orientation, and physical disability, among others. It also examines how to apply these concepts and principles while providing services to families. Family displacement and immigration issues will be explored as well. A.S. degree credit only. (3 hr. lecture)

HUS2303

Counseling Techniques 3 credits
Specific counseling techniques are introduced within the various counseling theories. Work involves both group and individual techniques. (3 hr. lecture)

HUS2493

Addiction Counseling Competencies 3 credits
This course is designed to enable students to master the TAP 21 competencies clinical evaluation, treatment planning, referral, service coordination, counseling, client, family, and community education, documentation and professional and ethical responsibilities. Additionally, the course will teach the student the process of identifying problems, establishing goals and deciding on a client treatment plan. Students will learn how to respond to an individual's needs during acute emotional and physical distress. Prerequisite: PSB 2442 (3 hr. lecture)

HUS2500

Issues & Ethics in Human Services 3 credits
This course is designed to familiarize students with the ethical problems that emerge from counseling the chemically dependent client. Emphasis will be placed on the following: the history and theory of ethics in health care; professionals' and patients' rights and responsibilities; the relationship between ethics and law; confidentiality and truth-telling in clinical relationships; technology; diagnostic testing and treatment; treatment of terminal illness; distribution of scarce medical resources and access to health care and systems payment. Prerequisite: PSB 2442. (3 hr. lecture)

HUS2800

Counseling Techniques Laboratory 3 credits
Practice counseling under supervised conditions using skills and techniques taught in HUS 1302 and HUS 2303. Work includes regular meetings with the supervisor. Corequisite: HUS 2303. (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, 1302, 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 HUS2493 and must be approved by the supervising instructor. Prerequisites: HUS 2493, PSB 2442. (3 hr. lecture)

HUS2941

Human Services Addiction Counseling Practicum 6 credits
This course is designed to provide the student with an arena to practice the application of Human Services addiction counseling theories and techniques in a licensed addiction treatment facility. Prerequisites: HUS 1302, 1421, 1423, 2493, 2500 and PSB 2442. (3 hr. lecture)

Humanities

HUM1020

Humanities 3 credits
An integral approach to the humanities: creative ideas, works, and accomplishments of various cultures from the areas of art, architecture, drama, music, literature and philosophy are presented. (3 hr. lecture)

HUM2513

Arts and Humanities 3 credits
Selected examples of Art including painting, sculpture, architecture, literature and the performing arts to illustrate the variety of art in relation to man's perception of self, nature and God. Intended primarily for use in overseas academic programs. May be repeated for credit. (6 hr. lab)

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

IDH1001

Honors Leadership Seminar 1 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)

IDH1002**Honors Leadership**

Seminar 2 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)

IDH2003**Honors Leadership**

Seminar 3 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 upper division institution to demonstrate their ability to apply the principles learned and the quality of their work. (1-3 hr. lecture)

IDH2004**Honors Leadership**

Seminar 4 1-3 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)

Interdisciplinary Sciences

IDS1107**Tools for Success****1 credit**

This course is for students majoring in science, technology, engineering and mathematics fields (STEM). Students will learn writing, research, presentation, and technological skills necessary for success in STEM-related disciplines. Course topics include learning styles, collaborative skills, power study techniques and will use related technologies related to STEM. (1 hr. lecture)

IDS2123**Leadership in Science, Technology, Engineering and Mathematics****1 credit**

In this course students will research their career interests and interview professionals in Science, Technology, Engineering and Mathematics (STEM). Students will learn to identify, compare, and evaluate upper division degree programs and prepare applications for admission to these programs. Students will write successful application essays and develop interview skills for transfer. (1 hr. lecture)

IDS2124**Skills for Transfer Success****1 credit**

This course is for students in science, technology, engineering and mathematics (STEM) for matriculation to the upper division. Students will learn to research, write, coordinate and present grants and scholarships in conjunction with the college application process.

Students will document all of their efforts in an electronic portfolio. (1 hr. lecture)

IDS2930**The Economic Effects of Scientific Discovery****1 credit**

Students will develop an understanding of the relationship between scientific discovery and/or development and its impact on a country's economic growth. Students will participate in a series of seminar sessions on campus, and will be assigned selected readings which reflect the course purpose. In a cooperative learning mode, students from Business will gain an understanding of scientific developments, while students from Natural Science will realize the economic value of scientific research. The capstone of the course is a trip to London and Paris to experience firsthand this relationship. (1 hr. lecture)

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)

ISC1010**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 given to the impact of scientific development on society, culture and thought. Prerequisite: 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)

ISC4535C**Research in the Sciences****3 credits**

This course provides students with a hands-on experience in developing a rich understanding of the processes of science through the development of a scientific research project in life, physical, and/or earth/space sciences. Students will generate hypothesis, develop and experimental design, collect data, and present an analysis of their findings. (3 hr. lecture)

Interior Design

IND1020**Interior Design 1****4 credits**

Student's projects develop the ability to plan simple interior floor plans and elevations. Corequisite: ARC 1115. Laboratory fee. (2 hr. lecture; 4 hr. lab)

IND1100**History of Interiors 1****3 credits**

Acquaints the student with period styles in room decoration from Egyptian through the Renaissance. (3 hr. lecture)

IND1130**History of Interiors 2****3 credits**

Historical development of interior design from the Renaissance through the 20th century. Gordon Rule Assigned. (3 hr. lecture)

IND1200**Interior Design 2****4 credits**

Problems in room planning, correlation of color schemes and furnishings. Prerequisite: IND 1020. Laboratory fee. (2 hr. lecture; 4 hr. lab)

IND1300**Interior Design****Presentations 1****2 credits**

An introductory course in the use of various media for presentation of plans, schemes, and interior perspective renderings. Prerequisite: IND 1020; corequisite: IND 1200. Laboratory fee. (1 hr. lecture; 2 hr. lab)

IND2210**Interior Design 3****4 credits**

Projects provide practice in planning traditional and contemporary interiors including working drawings and specifications. Prerequisite: IND 1200; corequisite: IND 2330. Laboratory fee. (2 hr. lecture; 4 hr. lab)

IND2220**Interior Design 4****4 credits**

Advanced problems involving interior arrangements in residential and commercial areas. Prerequisite: IND 2210. Laboratory fee. (2 hr. lecture; 4 hr. lab)

IND2330**Interior Design****Presentations 2****3 credits**

Emphasis is on perfecting water color, casein and reproducible drawing techniques through the presentation of interior plans, elevations and perspectives. Projects also provide experience in assembling collages. Prerequisite: IND 1300; corequisite: IND 2210. Laboratory fee. (1 hr. lecture; 4 hr. lab)

IND2430**Lighting Design****3 credits**

A survey of utilitarian interior lighting and exterior architectural lighting including fundamentals and basic physics laws, practical applications to interior and exterior spaces and lighting design considering different levels of space utilization and fixture efficiency. Prerequisite: IND 1200. Special fee. (3 hr. lecture)

IND2500**Professional Practices****3 credits**

Duties and responsibilities relative to employment and business practices. Prerequisite: Sophomore standing level or equivalent. (3 hr. lecture)

Italian Language

ITA1000 Elementary Italian Conversation 3 credits

A course emphasizing conversational Italian. Extensive use is made of oral exercises and audio tapes. This course cannot be substituted for ITA 1120 or 1121. (3 hr. lecture)

ITA1120 Elementary Italian 1 4 credits

An integrated (multi-media) approach to acquire proficiency in the basic skills (of the language)-listening/understanding, speaking, reading, writing, and cross-cultural awareness. Emphasis on practical vocabulary and accurate pronunciation. Practice in class and laboratory in understanding and using the spoken language; reading and writing with progressive grammatical explanations. (4 hr. lecture)

ITA1121 Elementary Italian 2 4 credits

A continuation of 1120. A proficiency-oriented course emphasizing the mastery of the basic skills of the language. Prerequisite: ITA 1120. (4 hr. lecture)

ITA2220 Intermediate Italian 1 4 credits

Students will understand, speak, read, write, and gain cultural awareness of Italian through a systematic review (using an integrated, multimedia approach) of reading, grammar, and writing skills with emphasis on oral and written communication. Prerequisite: ITA 1121 or equivalent. (4 hr. lecture).

ITA2221 Intermediate Italian 2 4 credits

Understanding, speaking, reading, writing and cross-cultural awareness, through a systematic review of reading and writing skills with emphasis on oral as well as written expression. Prerequisite: ITA 2220. (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

Students will understand, speak, read, write, and gain cultural awareness of Japanese through a systematic review (using an integrated, multimedia approach) of reading, grammar, and writing skills with emphasis on oral and written communication. Prerequisite: JPN 1121 or equivalent. (4 hr. lecture)

JPN2221 Intermediate Japanese 2 4 credits

A continuation of JPN 2220. Further study of advanced grammar, together with the introduction of more complex reading materials and an increase in the number of "Kanji." Emphasis on cross-cultural awareness. Prerequisite: JPN 2220 or equivalent. (4 hr. lecture)

Journalism

JOU1100 Basic Reporting 3 credits

Journalistic writing emphasizing the elements of reporting with an emphasis on the modern news story, analysis of the elements of news, style structure of news stories, news sources, and the mechanics of newspaper production. (3 hr. lecture)

JOU1946 Journalism Internship 1-3 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. Not automatically transferable. (2-6 hr. lab)

JOU1949 Co-op Work Experience 1: JOU 3 credits

This course is designed to provide training in a student's field of study through

work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-op Department approval. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval. (3 hr. lecture)

JOU2200 Editing and Makeup 3 credits

The application of copy desk techniques, including evaluating and editing copy, correcting faulty news stories, handling wire copy, writing headlines, and designing page layouts. Prerequisite: JOU 1100. (3 hr. lecture)

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)

LIN2606**Introduction to****Sociolinguistics****3 credits**

This course introduces students to the study of how social and cultural factors affect human communication. Topics such as language attitudes and policies, dialects vs. standards, class variation, and race and gender will be discussed. (3 hr. lecture)

LIN2670**Modern English Grammar****3 credits**

Grammatical relationships using traditional analysis in comparison with more recent linguistic techniques. (3 hr. lecture)

Management

FIN3400**Finance for****Non-Financial Managers****3 credits**

The students will learn to apply their financial skills and decision-making ability to address financial issues in a business environment. They will learn how financial markets influence their decisions and the role of financial intermediaries in these markets. Emphasis will be placed on financial and capital budgeting, working capital management, short and long term financing, valuation of the firm, and overall capital structure. The course will require the student to apply the time value of money through the use of present and future value scenarios. Prerequisites: ACG 2071, QMB 2100 or STA 2023. (3 hr. lecture)

ISM4011**Introduction to Management****Information Systems****4 credits**

The student will learn by examining the use of computer systems and information techn-

nology and their applications to make more effective business decisions. The student will use information technology software to assist them in making decisions of a business nature. The student will learn the latest terminology, techniques and applications of information systems in a business organization. (Senior status or permission of department chair) (4 hr. lecture)

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 by 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 com-

pensation 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)

MAN3025**Organization Management****3 credits**

The student will learn the major functions of supervision and management including the functions of planning, staffing, directing and controlling. Emphasis is placed on learning how to communicate more effectively with employees, and how to increase one's leadership effectiveness. Major topics include goal setting and attainment, organizational structure, decision-making, strategic planning, managing stress, and ethical behavior and ethical role modeling. The student will learn through the use of cases that will present the student with opportunities to make supervisory and management decisions after which they will be provided with timely feedback on their effectiveness. Prerequisite: MAN 2021. (3 hr. lecture)

MAN3065**Business Ethics 3 credits**

In this course the student will learn how personal values and ethics influence the decision-making capacity of the manager within an organization. The student will learn about ethical theories and the roles they play in the social and corporate behavior of an organization. Issues such as diversity in the workplace, intuition, technology, and the global environment of business, will be included in case examples. The student will acquire an understanding of how an organization can institutionalize its ethical system. Prerequisite: MAN 2021. (3 hr. lecture)

MAN3240**Organizational Behavior 3 credits**

The student will learn about social behavioral sciences that can be applied to supervision and management. The student will learn about several major topics including motivation, conflict, corrective actions and rewards, job related stress, organizational dynamics, the evolving global environment, and the responsibility to stakeholders and the planetary environment. The student organizational behavior, and how to integrate behavioral concepts into an effective managerial decision-making process. Prerequisite: MAN 2021. (3 hr. lecture)

MAN3301**Human Resource Management 3 credits**

The student will learn the functions of Human Resource Management including human resource planning, strategic development of human resources, recruitment techniques, selection and hiring processes, compensation systems, development of policy and procedures for effective and ethical human resource management, performance review and evaluation systems, working effectively with organized labor, retention of employees, and current issues in human resource management. The course will also include an exploration of human resources within the global business environment of a boundless organization. Prerequisite: MAN 2021. (3 hr. lecture)

MAN3894**Applied Case Studies in Management 3 credits**

The student will learn utilizing case studies as the primary focus of this course, Supervision and Management cases will require students to use a variety of decision-making tools and techniques to analyze and present their results. Rational and intuitive decision models as well as computer simulations will be utilized, which will help the student build a comprehensive set of decision making tools and the knowledge of how and when to apply them most effectively. Prerequisite: MAN 2021. (3 hr. lecture)

MAN4120**Leadership Challenges and Supervision 3 credits**

The student will learn to analyze leadership theories and will acquire an awareness of

the dynamics of supervisory and managerial decision-making. Emphasis will be placed on team building, crisis management, social and environmental responsibility, developing and communicating a vision, and the student will develop a full set of managerial and leadership skills. (Senior status or permission of department chair.) (3 hr. lecture)

MAN4162**Customer Relations for Managers 3 credits**

The student in this course will learn by exploring the dynamics of building solid and lasting relationships with customers. Topics will include doing business in a global environment, cultural diversity, the diversity of customs and global etiquette, negotiation tactics, global promotional tactics, and acceptable professional and corporate behaviors in a global business environment. (Senior status or permission of department chair.) (3 hr. lecture)

MAN4720**Strategic Management Decision Making 4 credits**

The student will learn the designing, planning, and implementation of strategic decision-making in a business organization. The student will learn how to identify problems and design possible solutions, by formulating plans, goals, and feedback mechanisms. Needs assessments, and internal and external audits will be utilized to understand problems that are presented in cases that require effective strategic solutions. Emphasis will be placed not only on developing an effective strategic plan but on its effective implementation and its long-term results. (Senior status or permission of department chair.) (4 hr. lecture)

MAN4900**Capstone Project in Supervision and Management 4 credits**

In this course the students will learn to apply all of their knowledge and skills to bear on a major supervision and management project. The project will require the effective integration of all that the students have learned throughout their supervision and management studies. The students will learn to integrate the knowledge and skills in order to complete an acceptable project. (must be taken during the last semester before graduation and permission of department chair.) (4 hr. lecture)

MAN4941**Management Internship 3 credits**

The student will learn by becoming an employee at either a not-for-profit or profit seeking organization. The student will be required to work at least the minimum hours required by the state to earn the credit for the internship. The student will work with their supervising faculty member and the employer to establish a set of learning goals that will be achieved during the semester. (Senior status and permission of department chair.) (3 hr. lecture)

MNA1053**Condominium & Association Law 3 credits**

An in-depth explanation of the legal basis for the creation and operation of the Condominium and Homeowner Associations. Careful analysis of the current Florida law relating to Condos and Homeowners 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 harassment-free workplace, and how to manage time. (3 hr. lecture)

MNA2120**Human Relations in Business 3 credits**

A practical review of human relations and communication skills necessary for superior performance and career advancement. Students will learn and practice effective interpersonal communication skills, including giving criticism tactfully, expressing feelings constructively, being more sensitive to body language messages, and active listening. Other major topics emphasized are building self-esteem, how values and attitudes influence our performance and work relationships, assertion skills, group dynamics and team building, managing conflict, dealing with difficult people, and the problems and challenges of getting along in a culturally diverse workplace. (3 hr. lecture)

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)

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)

MAR1211

Inventory and Warehouse Management 3 credits
Inventory and Warehouse Management is concerned with inventory control and cost concepts such as economic order quantity, reorder point, materials planning and just-

in-time inventory systems. This course will discuss significant topics including strategic warehousing and distribution center decisions, storage facilities location and design, packing and containerization and performance measurement as they relate to the international environment. (3 hr. lecture)

MAR1720

Introduction to E-Commerce 3 credits
This is a foundation course in E-Commerce. Students will learn the elements of effective E-Commerce solutions, E-Marketing, E-Accounting, E-Customer Service, and the development process. (3 hr. lecture)

MAR2141

Export/Import Marketing 3 credits
Introduction to international marketing, with special emphasis on export/import procedures and documentation. The basic principles and concepts of the distribution of goods in international markets; provides an overview of the international marketing process, and the problem facing international marketers in a multinational setting. Emphasis is placed upon export/import transactions. (3 hr. lecture)

MAR2150

International Marketing 3 credits
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)

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)

MAR2214

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, i.e., how to get the product to its destination, the most efficient routes and forms of transportation for the product. (3 hr. lecture)

MKA1021

Fundamentals of Selling 3 credits
The nature and requirements of selling, including a consideration of buyer motivations and selling theories in relation to various buyer-seller situations. (3 hr. lecture)

MKA1041

Principles of Retailing 3 credits
Major types of retail institutions and their organizational structure; activities of the merchandising, operating and controlling divisions; buying and merchandising functions; methods of financial, inventory, and credit control; and the selection and training of personnel. (3 hr. lecture)

MKA1161

Introduction to Customer Service 3 credits
A survey course which examines the attitudinal, behavioral and procedural basics which are common across all customer service sectors. An extensive vocabulary of customer service terms will be developed and students will understand their practical application in today's business environment. (3 hr. lecture)

MKA1511

Principles of Advertising and Copywriting 3 credits
Techniques and behavioral factors used in advertising and copywriting which best motivate the consumer. Principles are applied in clear, concise written expression of various appeals used in selling goods and services. (3 hr. lecture)

MKA1531

Advertising Layout and Production 3 credits
Principles of effective advertising layout and production techniques. Laboratory sessions emphasize use of color, art work, choice of type and methods and techniques of producing ads for various media. Prerequisite: MKA 1511 or equivalent. (3 hr. lecture)

MKA1949

Co-op Work Experience 1: MKA 3 credits
This is a course designed to continue training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-op Department Approval and completion of 1949 Co-op Work Experience. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the 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 technique in hypothetical business situations. Students prepare press releases, brochures, and other collateral materials. (3 hr. lecture)

Mathematics College Level

MAC1105

College Algebra

3 credits

This course introduces the student to the concept of functions and their graphs. Students will graph linear, quadratic, rational, exponential, logarithmic, radical, power, and absolute value functions and transformations; perform operations on and compositions of functions; find the inverse of a function; apply the laws of logarithms to simplify expressions and solve equations; graph non-linear inequalities; solve related applications and modeling problems. Prerequisite: MAT1033 with a grade of "C" or better "or" satisfactory placement test scores. Special Fee. Gordon Rule Assigned. (3 hr. lecture)

MAC1114

Trigonometry

3 credits

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. Gordon Rule Assigned. Special fee. (3 hr. lecture)

MAC1140

Pre-Calculus Algebra

3 credits

This course is primarily designed for students who are majoring in areas that require one or more courses in the calculus sequence. The student will analyze and graph algebraic, exponential, logarithmic, piecewise-equations, as well as systems of linear and nonlinear equations. The student will identify

arithmetic and geometric sequences and series and solve related problems. The student will use the Binomial Theorem to expand polynomials and solve related problems. The student will use mathematical induction to prove statements regarding the properties of natural numbers. The student will solve applications and ve statements regarding the properties of natural numbers. The student will solve applications and modeling problems related to the above topics. Prerequisite: MAC 1105 with a grade of "C" or better or equivalent. Gordon Rule Assigned. (3 hr. lecture)

MAC1147

Pre-Calculus Algebra and Trigonometry

5 credits

This course includes all the topics covered in Pre-Calculus Algebra (MAC 1140) and in trigonometry (MAC 1114). See the course description for MAC 1140 and MAC 1114 for the MAC 1147 topics. The course is designed for students with a strong high school background in algebra and trigonometry, or for students who performed very well in college algebra. Prerequisite: MAC1105 with a grade of "C" or better or departmental permission. Gordon Rule Assigned. (5 hr. lecture)

MAC2233

Business Calculus

3 credits

An introduction to the basic concepts of differential and integral calculus for business majors. Topics include limits; continuity; differentiation and integration of polynomial, logarithmic and exponential functions with applications to business. Prerequisite: MAC 1105. Gordon Rule Assigned. Special fee. (3 hr. lecture)

MAC2311

Calculus and

Analytical Geometry 1

5 credits

Introduction to analytic geometry; limits; continuity; differentiation of algebraic and trigonometric functions, differentials; introduction to integration and the fundamental theorem of calculus; application of definite integrals and derivatives. Prerequisites: MAC 1114 and MAC 1140 or MAC 1147 with a grade of "C" or better or departmental permission. Gordon Rule Assigned. (5 hr. lecture)

MAC2312

Calculus and

Analytical Geometry 2

4 credits

Techniques of integration; applications of integration; differentiation and integration of inverse trigonometric, exponential, logarithmic, and hyperbolic functions; sequences and series; parametric equations and polar coordinates; improper integrals; and indeterminate forms. Prerequisite: MAC 2311 with a grade of "C" or better. Gordon Rule Assigned. (4 hr. lecture)

MAC2313

Calculus and

Analytical Geometry 3

4 credits

Analytic geometry of three dimensions; vectors and vector valued functions; curves and surfaces in 3-space; partial differentiation

and applications; multiple integrals and their applications; line integrals, surface integrals; and Green's theorem. Prerequisite: MAC 2312 with a grade of "C" or better. Gordon Rule Assigned. (4 hr. lecture)

MAD1100

Discrete Mathematics

for Computer Science

3 credits

This course introduces students to the principles of discrete mathematics that apply to computer science. Topics include set theory, logic, Boolean algebra, number theory, vectors and matrices, combinatorics, probability, relations, functions, and basic graph theory. Prerequisite: MAC1105. Special fee. Gordon Rule Assigned. (3 hr. lecture)

MAD2104

Discrete Mathematics

3 credits

This course is designed for those students who are majoring in computer science, engineering, mathematics, and other highly technological fields. Topics include formal logic, set theory, combinatorics, mathematical induction, relations and functions, recursion, and graph theory. Prerequisite: MAC 1140. Special fee. Gordon Rule Assigned. (3 hr. lecture)

MAD3107

Discrete Structures

3 credits

Topics include sets, logic, switching circuits, Boolean Algebra, combinatorics, probability, mathematical proofs, mathematical induction, functions, relations, and graph theory. Credit is not also given for MAD 2104. Prerequisite: MAC 2312. (3 hr. lecture)

MAP2302

Introduction to

Differential Equations

3 credits

Includes equations of order one and degree one, orthogonal trajectories, linear equations and constant coefficients, non-homogeneous equations, inverse differential operators, solutions using Laplace Transforms, elementary existence theorems, series solutions, and applications to physics and chemistry. Prerequisite: MAC 2312 with a "C" or better or equivalent. Gordon Rule Assigned. (3 hr. lecture)

MAS2103

Elementary Linear Algebra

3 credits

Vectors, coordination of space, linear independence and bases, equations in 3-space, linear transformations, matrices, rank, and nullity. Prerequisite: MAC 2311. Gordon Rule Assigned. Special fee. (3 hr. lecture)

MAS3105

Linear Algebra

3 credits

This course is designed for students who are majoring in secondary mathematics education. Major topics include systems of linear equations, matrices, determinants, vector spaces, linear transformations, eigenvectors and eigenvalues, inner-product spaces and orthogonality. Prerequisite: MAC 2312. (3 hr. lecture)

MAS3301 Algebraic Structures 3 credits

This course is designed for students who are majoring in secondary mathematics education, mathematics, science or engineering. Topics include set theory, basic properties of the integers, groups, rings, fields and the 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. Gordon Rule Assigned. (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 CLAS format. Non-repeatable. Prerequisite: MAT 1033; corequisite: MGF 1106. Gordon Rule assigned. (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. Gordon Rule Assigned. (3 hr. lecture)

MGF1118L Math Computation Review 1 credit

The purpose of this course is to prepare for the computational section of the CLAST exam. This course will cover all of the computational competencies of the CLAS exam as well as general test taking skills. This course will not count as a Gordon Rule mathematics course. Prerequisite: Departmental Permission. May be repeated. (2 hr. lab)

MGF2210 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. Gordon Rule assigned. (3 hour 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: MAC 1105. (3 hr. lecture)

MTG2204 Geometry for Educators 3 credits

This course emphasizes Euclidean Geometry. The course includes measurements and properties of plane and solid figures, sets logic and proofs. Gordon Rule Assigned. (3 hr. lecture)

MTG3214 Euclidean Geometry 4 credits

This course encompasses a range of geometry topics and pedagogical ideas for the teaching of geometry including properties of shapes, defined and undefined terms, postulates and theorems, logical thinking and proofs, constructions, patterns, and sequences, the coordinate plane, axiomatic nature of Euclidean geometry, and basic topics of non-Euclidean geometries. Prerequisite: MAC 1147. (4 hr. lecture)

Mathematics College Preparatory

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. (2 hr. lecture; 4 hr. 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. (2 hr. lecture; 4 hr. 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. (2 hr. lecture; 4 hr. 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 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, nonprotein nitrogen, and electrolyte chemistry analyses with emphasis on their relationships to various disease states. Analytical procedures to assess liver function and acid-base balance are also included. Prerequisite: CHM 1025; corequisite: MLT 1610L. A.S. degree credit only. (2 hr. lecture)

MLT1610L**Clinical Chemistry 1 Laboratory 2 credits**

Performance of chemistry procedures on body fluids with emphasis on manual and automated instrumentation. Prerequisite: CHM 1025L. Laboratory fee. A.S. degree credit only. (4 hr. lab/clinic)

MLT1752**Quality Control Laboratory Mathematics 2 credits**

Emphasis on mathematical computations related to procedures in the clinical laboratory including dilutions, solutions, colorimetry, hematology math, enzymatic calculations, calculations relating to renal function tests, and mathematical principles related to ionic solutions. The student will also be given specific statistical tools necessary for quality control procedures as well as interpretations of Levy-Jennings charts and troubleshooting tools. (2 hr. lecture)

MLT1840L**Histotechnology Practicum 1 5 credits**

This is a clinical experience in which students will learn the techniques of processing human tissue for histological purposes. Prerequisite: MLT 2192. (15 hr. clinic)

MLT2180C**Infectious Diseases & Control Practices 3 credits**

This course will focus on the principles of transmission and control of diseases with an emphasis on infectious tissue specimens. Prerequisites: MCB 2013, 2013L. (2 hr. lecture; 2 hr. lab)

MLT2192**Histotechnology 2 3 credits**

This course is a continuation of Histotechnology 1. Students will be introduced to advanced processing techniques of human tissue for anatomical pathology and concepts of instrumentation. Prerequisite: MLT 1191. (3 hr. lecture)

MLT2192L**Histotechnology 2 Laboratory 2 credits**

This course is a continuation of Histotechnology Lab 1. Students will be introduced to more complex laboratory techniques in histotechnology. Prerequisite: MLT 1191L; corequisite: MLT 2192. (2 hr. lecture; 4 hr. lab)

MLT2197C**Tissue Identification 2 4 credits**

This course will provide the students with the correlations between histotechnological procedures and disease processes. Students will study the changes in tissue that are associated with various disease states, and will learn the usefulness of selected special stains and techniques in identifying disease processes. Prerequisite: MLT 1195C. (2 hr. lecture; 4 hr. lab)

MLT2198**Histochemistry 3 credits**

This course will introduce students to organic chemistry of stains and special stains, dyes, hydrocarbons; aromatics, alcohols, ethers, aldehydes, ketones, carbonyl compounds, amines and amides. Prerequisites: CHM 1033, 1033L; corequisite: MLT 2198L. (3 hr. lecture)

MLT2198L**Histochemistry Laboratory 2 credits**

This course will introduce students to 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 provides the knowledge base necessary for working in a clinical setting. (2 hr. lecture)

MLT2403L**Clinical Microbiology****Lab 2 2 credits**

This course is designed to complement the Microbiology 2 lecture and provide students with the necessary knowledge base and laboratory skills to effectively identify microorganisms associated with infectious diseases. (4 hr. lab)

MLT2440**Clinical Microbiology 1 1 credit**

This course will provide an overview of clinical mycology and parasitology. Topics will include both parasites and fungi and will cover life cycles, epidemiology, and etiology. Emphasis will be given to the most commonly encountered mycoses and parasitic infestations. This course should be taken concurrently with Clinical Microbiology 1 Lab. (1 hr. lecture)

MLT2440L**Clinical Microbiology****Lab 1 1 credit**

This course provides a practical overview of mycology and parasitology. Students will also obtain hands-on experience working with formalin preserve ova and parasites. They will also obtain the knowledge necessary to be able to identify at least the genus level of the most commonly encountered yeasts and fungi using microscopic and macroscopic techniques. This course should be taken concurrently with Clinical Microbiology. Corequisite: MLT 2440. Laboratory fee. (2 hr. lab)

MLT2525**Immuno-hematology 2 credits**

Theoretical concepts involving blood group systems, hemolytic diseases, and blood bank procedures relating to transfusion and component therapy. Prerequisite: MLT 1500; corequisite: MLT 2525L. A.S. degree credit only. (2 hr. lecture)

MLT2525L**Immuno-hematology****Laboratory 2 credits**

Performance of basic blood typing, blood bank assays on prepared specimens, and appropriate quality control procedures. Interpretation of results is included. Prerequisite: MLT 1500L; corequisite: MLT 2525. Laboratory fee. A.S. degree credit only. (4 hr. lab)

MLT2620**Clinical Chemistry 2 2 credits**

Theoretical concepts and principles of proteins, enzymes, and lipids with emphasis on their relationship to various disease states. Prerequisite: 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 electrophoresis and quality control. Prerequisite: MLT 1610L. Corequisite: MLT 2620. Laboratory fee. A.S. degree credit only. (2 hr. lab)

MLT2624L**Special Techniques in Clinical Chemistry 2 credits**

The principles and performance of radioimmunoassay, EMIT, ELISA, and toxicological techniques for thyroid function, hormones, and toxic substances. Prerequisites: MLT 1610, 1610L; corequisites: MLT 2620, 2620L. Laboratory fee. A.S. degree credit only. (4 hr. lab)

MLT2807L**Hospital Practicum: Immuno-hematology 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 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 cover general knowledge in meteorology. The student will learn about the atmospheric structure and composition, weather and circulation systems, physics of atmospheric processes; as well as global climate and climate change and their impact on human activities. Corequisite MET 3702L. (3 hr. lecture)

MET3702L**General Meteorology Laboratory****1 credit**

The meteorology lab is a separate 1 credit course designed to be taken in conjunction with a meteorology lecture. Experiments performed each week are chosen with the material being studied in the lecture. Corequisite: MET3702. (2 hr. lab)

Military Science

Air Force ROTC (AFR)

Miami Dade College, in cooperation with the Department of Aerospace Studies, Air Force Reserve Officer Training Corps (AFROTC), at the University of Miami, provides academic instruction and training experiences leading to commissioned service in the United States Air Force.

AFROTC is an educational program designed to give men and women the opportunity to become Air Force officers while completing a bachelor's degree. The AFROTC program is designed to prepare them to assume positions of increasing responsibility and importance in the modern Air Force.

AFROTC offers several routes to an Air Force commission. Optimally, the program lasts four years, but it can be completed in three, two or even just one year if you are majoring in a critically needed area. Depending on the program chosen, attendance at either a four-week or five-week summer field training course is required.

The four-year AFROTC program is comprised of a two-year basic course in Air Force organization and the development of air power, a four-week field training course at an Air Force base during the summer, and a two year advanced course in improving communication skills, leadership, and managerial skills, and knowledge of national security issues necessary for becoming an Air Force Officer. Cadets who complete the basic course program at MDC are eligible to apply for selection into the AFROTC advanced course at any 4-year college or university offering these last two years of the AFROTC program.

AFROTC cadets will receive junior officer training, career orientation, and learn how the Air Force operates. Travel to and from the base where field training occurs is paid for by the Air Force. The end product of the AFROTC program is to produce second Lieutenants in the Air Force upon graduation. For more information, contact the detachment at 305-284-2870 or visit www.miami.edu/aerospace-studies.

ENROLLMENT

There is no military obligation to sign up for AFROTC. To take classes students must be U.S. citizens or resident aliens, and must be U.S. citizens to receive a commission. It is possible to begin AFROTC as a resident alien and earn a commission once citizenship is obtained. AFROTC cadets must also pass the Air Force Officer Qualifying Test, a physical fitness test including a 1.5 mile timed run, push-ups and

sit-ups and pass a Department of Defense physical exam in order to be eligible for scholarships and ultimately commissioning.

SCHOLARSHIPS

A variety of AFROTC scholarships for one, two, three, and four years are available on a competitive basis and include a \$750 textbook allowance per semester plus a non-taxable \$250-\$400 stipend each month during the school year. Some scholarships provide full college tuition while others begin at \$15,000 per year. In selected academic areas, scholarships may extend to meet a five year degree program recognized by the college. The one year program is for students preparing for occupations for which the Air Force has a special need. The majority of two to four year scholarships are for students pursuing degrees in certain fields of engineering, science and math, with a limited number going to other academic degrees. A number of scholarships are also available to students enrolled in certain non-technical degree programs such as: business administration, accounting, economics, and management. Scholarships for careers in the medical field are also offered.

BENEFITS

All AFROTC cadets receive uniforms, books and equipment for ROTC classes at no cost. Upon being commissioned a 2nd Lieutenant in the Air Force, you will receive a starting salary and allowances worth more than \$40,000 per year. Free medical and dental care, 30 days annual vacation with pay and added educational benefits are also part of the compensation package.

AFR1101**The Foundation of the United States****Air Force - Part 1****1 credit**

This course is designed to show the potential Air Force officer, what role today's Air Force plays in defense of our nation, what role they can fill in today's Air Force, and finally what the Air Force offers them both today and AFROTC and later should they choose the Air Force as a profession after AFROTC.

AFR1111**Introduction to the United States Air Force - Part 3****Sem Basic Air Force ROTC****1 credit**

This course is designed to examine general aspects of air and space power through a historical perspective. We will cover the time period from the first balloons and dirigibles to the space-age global positioning systems to the Persian Gulf War. Historical examples will be provided to extrapolate the development of Air Force capabilities and missions to demonstrate the evolution of what has become today's U.S. Air Force air and space power.

AFR2130**The Foundation of the United States****Air Force - Part 2****1 credit**

This course is designed to show the potential Air Force officer, what role today's Air Force

plays in defense of our nation, what role they can fill into today's Air Force, and finally what the Air Force offers them both today and AFROTC and later should they choose the Air Force as a profession after AFROTC.

AFR2131**Introduction to the United States****Air Force - Part 2****1 credit**

This course is designed to examine general aspects of air and space power through a historical perspective. We will cover the time period from the first balloons and dirigibles to the space-age global positioning systems to the Persian Gulf War. Historical examples will be provided to extrapolate the development of Air Force capabilities and missions to demonstrate the evolution of what has become today's U.S. Air Force air and space power.

*** Leadership Laboratory****Offered Fall and Spring Semesters**

Leadership Laboratory (LLAB) is a dynamic and integrated grouping of leadership developmental activities designed to meet the needs and expectations of prospective Air Force second lieutenants and complement the AFROTC academic program. It is a student planned, organized, and executed practicum conducted under the supervision of the detachment commander and commandant of cadets.

Army ROTC (MSL)

The Army Reserve Officer Training Corps a college elective that is designed to and instill the leadership skills necessary become officers in the active Army, National Guard, or Army Reserves. Students who complete the ROTC curriculum and earn a Bachelor degree will in most undergraduate majors offered by local universities, be commissioned as second lieutenants. Army ROTC teaches classes and maintains offices at both the Kendall and North campuses.

ENROLLMENT

Freshman and sophomore students may sign-up for the MSL courses directly through MDC. There is no military obligation to take the course. At a minimum, students must be Resident Aliens to participate and must be U.S. citizens to earn a commission. Students transferring to Florida International University, Florida Atlantic University, University of Miami, Barry University or Florida Memorial College may be eligible to complete the program and earn a commission.

SCHOLARSHIPS

Three and two-year scholarships are offered to qualified ROTC students for use at one of the universities listed above. Scholarships pay up to \$20,000 annually toward tuition, \$900 annually for books, and \$300 to \$500 monthly directly to the student. For more information, contact the Enrollment Officer at (305) 237-2785 or (305) 348-1619.

SPECIAL PROGRAMS

Prior service members and members of the National Guard and Army Reserve have special entrance consideration and may be entitled to other monetary benefits. Call the number listed above for more information. Sophomore students preparing to enter a university and that did not participate in ROTC during their first two years in college may attend a five-week ROTC basic course during the summer. This course is voluntary and does not require enlistment or further commitment to the service in order to attend. All transportation, lodging, uniforms and meals are provided. Additionally, students earn \$800-\$900 for attendance.

BENEFITS

All cadets receive uniforms, books, and equipment at no extra cost. Contracted students, regardless of scholarship, receive \$300 to \$500 monthly. Once commissioned, active duty Second Lieutenants earns a starting military compensation package of \$48,114.70 annually, have 30 days paid vacation annually, are entitled to further education benefits, and free medical/dental care.

MSL1001**First Year Basic****Army ROTC****2 credits**

Introduction to Army organizations, military customs, basic marching drills, map reading, and land navigation techniques, drown-proofing, rappelling, river crossing techniques, and physical fitness. Physical fitness training and laboratory required.

MSL1002**First Year Basic****Army ROTC****2 credits**

Continues basic leadership training. Additionally introduces students to officer duties, awards and decorations, individual military skills, radio communication procedures and physical fitness. Physical training and lab required.

MSL2101**Second Year Basic****Army ROTC****2 credits**

Instruction in squad and platoon marching drills, military training and inspections, leadership techniques, advanced map reading, and refresher in skills learned at earlier levels. Physical fitness training and lab required.

MSL2102**Second Year****Basic Army ROTC****2 credits**

Continued instruction in drill and ceremony, nuclear, biological and chemical warfare, practical land navigation, orienteering, and introduction to combat troop leading procedures. Physical fitness training and laboratory required.

Music**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: MVK 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)

MUC2601**Introduction to****Songwriting****3 credits**

This course explores the art and craft of popular songwriting. Students will learn the

basics of lyric writing, chord progressions, melodic creation, and structure as they apply to popular song. (3 hr. lecture)

MUC2617**Songwriting 2****3 credits**

This course continues the study of the art and craft of popular songwriting. Students will learn techniques of lyric writing, chord progressions, melodic creation, and structure as they apply to popular song. Prerequisite: MUC2601. (3 hr. lecture)

MUE1430**Voice Techniques****1 credit**

Class instruction designed to provide basic performance and teaching skills in voice or instruments from each area. (2 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. Gordon Rule assigned. (3 hr. lecture)

MUL1010**Music Appreciation****3 credits**

The development of the various styles, forms, and idioms, in music. The emphasis is given to the student's ability to understand and enjoy music. (3 hr. lecture)

MUL2380**Jazz and Popular****Music in America****3 credits**

A survey of the development of popular and jazz music with an emphasis on musical styles and outstanding artists. Gordon Rule Assigned. (3 hr. lecture)

MUM1622L**Sound Reinforcement and Fundamentals****Laboratory****1 credit**

This course is designed to provide students with "hands on" experience in conjunction with music school performance activities. Corequisite: MUM 1662. (2 hr. lab)

MUM1662**Sound Reinforcement Fundamentals****3 credits**

Sound reinforcement fundamentals is a course designed to provide students with background in live sound reinforcement, concert sound practices, and general PA work associated with sound engineering. Corequisite: MUM 1622L. (3 hr. lecture)

MUM1949**Co-op Work****Experience 1: MUM****3 credits**

This course is designed to provide students with training in their chosen field of study (Sound Engineering or related area) through "on the job" work experience. Students are graded on the basis on documentation of learning acquired as reported by student and employer. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Cooperative Education office to obtain registration approval. Prerequisite: Co-op department approval. (3 hr. lecture and field experience)

MUM2030**Commercial****Music Performance****3 credits**

A performance experience with concentration on repertoire, style and management of commercial engagements. Includes transposition, harmonization and show reading. Prerequisite: MUT 1112 or permission of instructor. May be repeated for credit. (3 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. Corequisite: 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 includes editing and packaging. Prerequisites: MUM 2600, 2600L. Laboratory fee. (2 hr. lab)

MUM2700**Music Business 1****3 credits**

The fundamentals, guidelines and the use of copyright law, contracts, agencies and management, publishing, song writing, recording production and marketing. Prerequisite: One year of college-level music study or equivalent. Corequisite: MUM 2703. Special fee. (3 hr. lecture)

MUM2702**Music Business 2-Careers****3 credits**

A systematic look at career options in the Music Industry. Topics discussed include record promotion, marketing, distribution, music publishing, working in the local music industry, radio and television, film scoring, advertising, "jingle" production, teaching as a business, music merchandising, arts administration, working in the national and international scene, live performance, and recording agreements. Students will develop a written business plan for their own music business enterprise and write their resumes. This course will prepare the student for the Music Business Internship. Special fee. Corequisite: MUM 2704. (3 hr. lecture)

MUM2703**Music Business 3-Computer 3 credits**

This course will provide an overview, and hands-on experience, with a wide variety of computer-based music technology and cross-platform software applications used within the Music Business environment. Software studies include Microsoft Word (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 on documentation of learning acquired as reported by student and employer. All students must contact the Cooperative Education office to obtain registration approval. Prerequisite: Co-op approval and completion of MUM 1949 Co-op Work Experience. (3 hr. lecture and field experience)

MUN1120**Concert Band 1-3 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 1-4 horns. The class will perform jazz tunes including, but not limited to, those based on the 12-bar blues form, I Got Rhythm chord changes, II-V-I chord changes, and the modes of major and minor scales. Concepts will include the various approaches to soloing, the use of chord substitutions, chord-scale relationships, playing in correct rhythmic time, and the use of dynamics and rhythmic variation. Group concepts discussed will include rhythm section function, musical interplay between soloist and rhythm section, and the creation of introductions, interludes, and endings. May be repeated for credit. (3 hr. lecture)

MUO1501**Opera Workshop 1-3 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 vocal-

izing. 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 & 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 & Ear Training 1 Year 1-2 variable credits**

The development of aural skill by means of rhythmic and melodic dictation and sights-

singing. Prerequisite: MUT 1241 for 1242; corequisites: MUT 1111, 1112. (2-4 hrs. per week)

MUT1242**Sightsinging & 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 & 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 &****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 &****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 sight-singing work is included in the course. (3 hr. lecture)

MUT2277**Music Theory &****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, sight-singing, 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)

MVB1011**Pre-Applied Trumpet 2 credits**

Private instrumental for those music students who are not prepared to perform at the college music major level. Special fees. (1 hr. 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)

NMT1312**Radiation Protection 2 credits**

This course will include all local, state and federal regulations related to Nuclear Medicine, the appropriate protection procedures to limit exposure, the performance of area surveys and wipe tests, the proper decontamination procedures, the disposal

of radioactive waste procedures, and personnel monitoring of radiation exposure. Corequisites: NMT1002L, 1713. (2 hr. lecture)

NMT1713**Nuclear Medicine****Procedures 1****2 credits**

This course will include the imaging parameters necessary to obtain images for the basic procedures done in a Nuclear Medicine department. The imaging procedures included in this course are related to the following systems: skeletal, central nervous, cardiovascular genitourinary, respiratory, and gastrointestinal. Instrumentation necessary to produce the required images as well as patient management during the procedures will be addressed. Prerequisites: BSC 2085, 2085L, 2086, 2086L, CHM1033, 1033L; corequisites: NMT1002L, 1312. (2 hr. lecture)

NMT2102**Nuclear Medicine****Administration****2 credits**

The student will be introduced to the administrative duties required of a nuclear medicine technologist. Some areas that will be covered include patient scheduling, radioisotope ordering; scheduling and testing; communication; patient and clinician satisfaction. Prerequisites: NMT2130, 2534; corequisites: NMT 2723, 2573, 2814C. (2 hr. lecture)

NMT2130**Nuclear Medicine****Pharmacology****2 credits**

The student will understand how to maintain radiopharmaceutical laboratory records and materials, obtain a generator eluate, prepare radiopharmaceuticals and perform quality control tests, as well as dispose of radioactive waste appropriately. The ordering of pharmaceuticals in appropriate dosage and effective time frames will also be included. Prerequisites: NMT 1312, 1713; corequisites: NMT 2534, 2613, 2804C. (2 hr. lecture)

NMT2534**Nuclear Medicine****Instrumentation****2 credits**

This course will integrate and correlate the principles of electrical and nuclear physics associated with the operation and calibration of radiation detection devices employed in nuclear medicine. The student will be introduced to the various types of devices that are used to provide information from which the diagnostic images are obtained. Prerequisites: NMT 1002L 1312, 1713, and PHY1004; corequisites: NMT 2613, 2130, 2804C. (2 hr. lecture)

NMT2573**Nuclear Medicine QA/QC****2 credits**

The student will perform quality control testing of imaging systems; calibrate and operate scintillation counters; calibrate and operate gas-filled detectors; and perform quality assurance testing of routine imaging and assay procedures. Prerequisites: NMT 2534, 2613; corequisites: NMT 1713, 2102, 2814C. (2 hr. lecture)

NMT2613**Nuclear Medicine Physics 2 credits**

This course includes the basic concepts of atomic, nuclear and radiation physics with an emphasis on the interactions of radiation with matter. Alpha, beta, and gamma sources are explained in this course. Prerequisites: MAC 1105, NMT 1002L, and PHY 1004; corequisites: NMT2534, 2130, 2804C. (2 hr. lecture)

NMT2723**Nuclear Medicine Procedures 2 2 credits**

This course is a continuation of Nuclear Medicine Procedures 1 and will include the imaging parameters necessary to obtain images for the remainder of procedures performed in a Nuclear Medicine department. Instrumentation necessary to produce the required images as well as patient management during the procedures will be addressed. Prerequisites: NMT 1713, 2804C; corequisites: NMT 2814C, 2573. (2 hr. lecture)

NMT2804C**Nuclear Medicine Clinic 1 5 credits**

This course will introduce the student to the fundamentals of clinical nuclear medicine primarily through hospital involvement. The student will gain practical experience in a Nuclear Medicine department by performing the principles taught in class. (15 hr. Clinic)

NMT2814C**Nuclear Medicine Clinic 2 7 credits**

This course is a continuation of NMT 2804C Clinic 1 and will provide the student the opportunity to participate in the fundamentals of clinical nuclear medicine in the hospital involvement. The student will gain practical experience in a Nuclear Medicine department by performing the principles taught in class. (21 hr. Clinic)

NMT2824C**Nuclear Medicine Clinic 3 7 credits**

This is the final course in the series of three clinical courses. In this course, the student will apply all didactic competencies in the Nuclear Medicine department setting. The student will be expected to perform all procedures from the two Nuclear Medicine Procedures courses with minimal supervision. The ARRT Competency Requirements must be completed in this course. Prerequisites: NMT 1713, 2723, 2804C, 2814C. (21 hr. Clinic)

NMT2932**Nuclear Medicine Seminar 2 credits**

This course will incorporate all theory related to the production of a nuclear medicine image. How radiation protection, instrumentation, physics, pharmacology, and Quality Assurance/Quality Control interrelate will be presented. Prerequisites: NMT 1312, 2533, 2613, 2573; corequisite: 2824C. (2 hr. lecture)

Nursing

NUR1002**Transition to Professional Nursing 6 credits**

This course introduces the student with selected prior health care experience and education to the profession of nursing, the roles basic to nursing practice, nursing process and the implementation of health-promoting activities to meet patient needs. Nursing care of the adult patient with moderate alterations in health will be explored within a body systems framework. The nurse's role in meeting the short and long term needs of the patient and community through preventive, therapeutic and palliative care will be presented. Prerequisites: BSC 2085, 2085L, 2086, 2086L, CHM 1033, 1033L, ENC 1101, HSC 0003, PPE 1005. corequisites: NUR 1002L 1141, MCB 2013. (6 hr. lecture)

NUR1002L**Transition to Professional Nursing Laboratory 4 credits**

This course provides opportunities for the student with selected prior health care experiences and education to apply the nursing process. The emphasis is on health promoting activities to meet patient needs in a variety of settings including in-patient and community-based experiences. Students will be encouraged to actively participate in projects emphasizing preventive aspects of nursing care. Selected skills related to adult health nursing will be presented. Prerequisites: BSC2085, 2085L, 2086, 2086L, CHM1033, 1033L, ENC1101, HSC0003, PHI2604, PPE1005; corequisites: NUR1002, 1142, MCB2013. (12 hr. lab)

NUR1025**Fundamentals of Nursing 3 credits**

This course provides an introduction to the profession of nursing, the roles basic to nursing practice, nursing process, and how nurses are involved in health promoting activities to meet client needs. Prerequisites: BSC2085, 2085L, 2086, 2086L, CHM 1033, 1033L, ENC1101, HSC0003 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, HSC0003, 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 0003, PHI 2604; corequisites: NUR 1025, 1025L, 1142. (2 hr. lecture)

NUR1141**Nursing Math & Pharmacology 2 credits**

Nursing Math and Pharmacology provides instruction about medications and their effects on different body systems. The conceptual and mathematical operations necessary for safe and effective administration of intravenous medications, preparing medications that come in powdered form and adjusting medication administration based on medical protocols will be discussed. Prerequisites: NUR 1025, 1025C, 1025L, 1060C, 1142; corequisites: NUR 1211, 1211L, and 1214C. (2 hr. lecture)

NUR1142**Introduction to Nursing Math & Pharmacology 1 credit**

The student will learn basic concepts of medications including history, drug nomenclature, sources of drug information, 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: Program admission; corequisites: NUR 1025, 1025C, 1060C or NUR 1002, 1002L. (1 hr. lecture)

NUR1211**Medical-Surgical Nursing 4 credits**

This course provides an introduction to the nursing care of the adult client. Moderate alterations in a client's health will be explored within a body systems framework. The nurse's role in meeting the short and long term needs of the client and community through preventive, therapeutic and palliative care will be discussed. Prerequisites: NUR 1025, 1025C, 1025L, 1060C, 1142; corequisites: NUR 1211, 1211L, 1214C. (4 hr. lecture)

NUR1211L**Medical Surgical Nursing
Clinical Lab****4 credits**

This course provides students with opportunities to apply advanced concepts of medical surgical nursing. Experiences in both in-patient and community settings will be provided focusing on the nurse's role in meeting the needs of the client, family, and community. Students will be encouraged to actively participate in projects assisting clients in preventive care and maintenance of health. Prerequisites: NUR 1025, 1025C, 1025L, 1060C, and 1142; corequisites: NUR 1141, 1210, 1213C. (12 hr. Clinical lab)

NUR1214C**Medical Surgical
Nursing Skills Lab****1 credit**

This course provides opportunities for the explanation, demonstration, and practice of skills related to adult health nursing. Learning experiences are provided in the School of Nursing Skills Laboratory. Prerequisites: NUR 1025, 1025C, 1025L, 1060C, 1142; corequisites: NUR 1141, 1211, 1211L. (.5 hr. lecture; 1 hr. lab)

NUR2212**Advanced Medical-
Surgical Nursing****3 credits**

This course explores the medical surgical nursing care of clients with complex alterations in health. Students will learn advanced concepts in medical surgical nursing which will be discussed within a body systems framework focusing on the nurse's role in meeting the needs of the client, family, and community. Prerequisites: NUR 1211, 1211L, 1214C or NUR 1002, 1002L; NUR 1142, 2310, 2310L, 2420, 2420L, 2680L. corequisite: NUR 2212L. Laboratory fee. A.S. degree credit only. (3 hr. lecture)

NUR2212L**Advanced Medical-Surgical
Nursing Clinical****3 credits**

This course provides students with the opportunity to apply advanced concepts of medical surgical nursing. Students will learn to provide health care delivery in both in-patient and community settings. Students will focus on the nurse's role in meeting the needs of the client, family and community. Students will be encouraged to actively participate in projects assisting clients in preventive care and maintenance of health. Prerequisites: NUR 1211, 1211L, 1214C or NUR 1002, 1002L, 1142, 2310, 2310L, 2420, 2420L, 2680L; corequisite; NUR 2212. Laboratory fee. A.S. degree credit only. (9 hr. clinical)

NUR2310**Pediatric Nursing****2 credits**

This course provides a family centered approach to the nursing care of pediatric clients and their families. Students will learn the nurse's role in meeting the short and long term needs of the pediatric client, family,

and community through preventative, therapeutic and palliative care, with recognition for the multicultural aspects of client needs. Prerequisites: NUR 1211, 1211L, 1214C or NUR 1002, 1002L; NUR 1142; corequisites: NUR 2310L, 2420, 2420L, 2680L. Laboratory fee. A.S. degree only. (2 hr. lecture)

NUR2310L**Pediatric Nursing****Clinical Lab****1 credit**

This course allows the student to apply the nursing process to the care of clients in selected pediatric clinical settings. Students will learn to observe cultural diversity and implement care to the pediatric client, family, and community through preventative, therapeutic and palliative measures. Prerequisites: NUR 1211, 1211L, 1214C or NUR 1002, 1002L, 1142; corequisites: NUR 2310, 2420, 2420L, 2680L. Laboratory fee. A.S. degree credit only. (3 hr. clinical)

NUR2420**Obstetrical Nursing****2 credits**

This course provides a family centered approach to the nursing care of obstetrical clients and their families. Students will learn to assess the pregnant client, to implement caring behaviors for the laboring client, educate the postpartum client, manage the care of the newborn and collaboration of care for the high risk client. Prerequisites: NUR 1211, 1211L, 1214C or NUR 1002, 1002L; 1142; corequisites: NUR 2310, 2310L, 2420L, 2680L. Laboratory fee. A.S. degree credit only. (2 hr. lecture)

NUR2420L**Obstetrical Nursing****Clinical Lab****1 credit**

This course provides an introduction to obstetrical nursing clinical practice. Students will learn to apply the nursing process to the care of clients in selected obstetrical clinical settings. Prerequisites: NUR 1211L, 1211L, 1214C; or NUR 1002, 1002L; 1142. corequisites: NUR 2310, 2310L, 2420, 2680L. Laboratory fee. A.S. degree credit only. (3 hr. clinical)

NUR2520**Psychiatric Nursing****2 credits**

This course introduces students to the basic concepts of psychiatric nursing. Students will learn to provide care in in-patient and community settings. Focusing on the nurse's role in meeting the needs of the patient, family, and the community. Prerequisites: NUR 1211, 1211L, 1214C or 1002, 1002L, 1142; corequisites: NUR 2520L. Laboratory fee. A.S. degree only. (2 hr. lecture)

NUR2520L**Psychiatric Nursing****Clinical Lab****2 credits**

This course provides the student opportunities to apply concepts of psychiatric nursing. Students will learn psychiatric procedures for both in-patient and in the community settings which will focus on

the nurse's role on meeting the needs of the client, family, and community. Students will be encouraged to actively participate in projects assisting clients in preventative care and maintenance of mental health. Prerequisites: NUR 1211, 1211L, 1214C or 1002, 1002L, 1142. corequisites: NUR 2520. Laboratory fee. A.S. degree credit only. (6 hr. clinical/lab)

NUR2680L**Community Health
Nursing Lab****1 credit**

This laboratory course assists the students in applying knowledge of community health resources. Students will learn to manage community health resources to support the delivery of care to the childbearing/childrearing families. Special emphasis is placed on the understanding of cultural influences on the health practices and beliefs within the family. Prerequisites: NUR 1211, 1211L, 1214C or 1002, 1002L; 1142; corequisites: NUR 2310, 2310L, 2420, 2420L. Laboratory fee. A.S. degree credit only. (3 hr. clinical)

NUR2811C**Professional Nursing****Leadership****4-5 variable credits**

This course provides the student with the theoretical and clinical knowledge necessary for actualization of the role of the registered professional nurse. Students will learn how to apply the role of the registered nurse with emphasis on delegation and supervision. Prerequisites: NUR 2310, 2310L, 2420, 2420L, 2680L. Laboratory fee. A.S. degree credit only. (2 hr. lecture 9 hr. lab)

NUR3045**Culture in****Nursing Practice****3 credits**

This course focuses on the use of the nursing process to provide culturally competent health care, including assessing and identifying cultural practices, values and beliefs that affect nursing practice. The student will be introduced to the components of cultural competence, which includes awareness, sensitivity, and brokering interventions. This course will incorporate culturally relevant planning, implementation and evaluation. Minimum grade of "C" or better required. Corequisite: NUR 3805 (3 hr. lecture)

NUR3069**Advanced****Health Assessment****3 credits**

This course will focus on the assessment of individuals, families, and culturally diverse communities throughout the life span. The course will also include relevant theories, evidenced based practice concepts for the comprehensive assessment and management of health throughout the family life cycle. The course includes lecture, discussion and demonstration of history-taking and an integrated physical assessment. Minimum grade of "C" or better required. Corequisite NUR 3846. (3 hr. lecture)

NUR3165**Nursing Research 3 credits**

This course provides a basic understanding of the steps and processes of qualitative and quantitative nursing research, with an emphasis on the development of the basic skills of analyzing research findings and how they can be incorporated and applied to clinical practice. Ethical and theoretical issues will be discussed. Minimum grade of "C" or better required. Prerequisite: Admission to the program. (3 hr. lecture)

NUR3178**Complementary and Alternative Health Care 3 credits**

This is an upper division course in complementary and alternative healthcare. Students will learn holistic aspects of care while evaluating complementary and alternative healthcare in diverse populations across the lifespan and around the globe. The course addresses different complementary and alternative treatment practices through evidence-based research. (3 hr. lecture)

NUR3805**Transition to Professional Nursing 3 credits**

This course focuses on the transition of nursing students from an associate degree program to the role of the BSN nursing graduate. The BSN role builds on concepts and experiences previously introduced. The history and evolution of the nursing profession, ethical imperatives, and current trends and issues impacting professional practice in an evolving healthcare delivery environment are foundations for the development of the professional nurse. The role of the BSN prepared graduate focuses on utilization of evidenced-based nursing practices and advanced leadership and management skills in a variety of settings within a global community. Minimum grade of "C" or better required. Corequisite: NUR 3045. (3 hr. lecture)

NUR3826**Ethical Issues in Health Care and the Environment 3 credits**

This course is designed to acquaint students with current ethical issues in health care and the environment. Students will learn to analyze issues/dilemmas using ethical decision making models. Students will learn the process involved in advocating for change in the health care setting and the global environment. Prerequisites: PHI 2604 or NUR 3041. (3 hr. lecture)

NUR3846**Foundations of Professional Nursing 3 credits**

This course explores the evolution of professional nursing knowledge and theories. Concepts are analyzed in relation to conceptual theoretical frameworks within Nursing. Students will integrate philosophies and theories in the delivery of healthcare and theories are introduced as a foundation for

the delivery of healthcare in a multicultural/global environment. Minimum grade of "C" or better required. Corequisite: NUR 3069. (3 hr. lecture)

NUR4636**Community Health Nursing 3 credits**

This course focuses on the holistic aspects of community nursing care applied to diverse global populations across the lifespan. The course introduces students to community nursing practice and formulates a paradigm shift from individual patients to the global community, addressing the history, evolution, theoretical framework, and purpose of community health nursing practice with an introduction to epidemiological principles, concepts of community assessment, health promotion, maintenance and education. The course involves the analysis of current knowledge and practice to illness prevention, health promotion, health restoration, community education and empowerment. Minimum grade of "C" or better required. Prerequisite: NUR 3069, 3805; corequisite: NUR 4636L. (3 hr. lecture)

NUR4636L**Community Health Nursing Practicum 3 credits**

This course focuses on the clinical application of Community Health Nursing Theory. Students will utilize the nursing process in the delivery of healthcare within the community environment. Students will assess the individual, family, and/or community, develop a plan of care, and deliver care to an individual, family and/or community within a multicultural environment. Minimum grade of "C" or better required. Corequisite: NUR 4636. (144 hr. Practicum)

NUR4667**Globalization of Nursing Practice 3 credits**

This course focuses on world health issues that influence international health practices with an emphasis on preparing the professional nurse to become a major contributor to the international health care team. The course will include political, economical, social, and demographic issues that affect health care systems of select countries and address the role of nurses in the delivery of global health care. Minimum grade of "C" or better required Prerequisite: NUR 3069, 3805; corequisite: NUR 4827. (3 hr. lecture)

NUR4827**Leadership and Management Theory 3 credits**

This is an introductory course to leadership and management concepts and theories needed in today's health care environment. The course focuses on unique and innovative approaches to delegation, decision-making, budgeting, quality improvement, evidence-based practice, and population-based practice. Minimum grade of "C" or better required. Corequisite: NUR 4667. (3 hr. lecture)

NUR4945C**Advanced Concepts Practicum 3 credits**

This course is a capstone of prior learning, including evidenced-based interventions, theoretical concepts, and critical thinking skills, with an emphasis on the application to professional nursing practice. The focus is on multicultural populations which are experiencing physical, psychological, social, or spiritual imbalances. The student, working with a preceptor, will facilitate the delivery of health care to diverse cultures in various specialized settings. Prerequisites: Minimum grade of "C" or better required, NUR 4636, NUR 4667. (3 hr. lecture)

Nutrition

HUN1012**Nutritional Counseling 3 credits**

Basic principles of nutrition of an optimum diet for building and maintaining sound teeth and body tissues. Emphasis is placed on nutritional counseling. (3 hr. lecture)

HUN1201**Essentials of Human Nutrition 3 credits**

The Essentials of Human Nutrition is a general education course designed to acquaint students with the specific role of carbohydrates, fats, proteins, vitamins, minerals, and water in daily life. Students will learn how the human body systems manage the breakdown, assimilation, and excretion of nutrients and their metabolic wastes. Students will also learn the relationships between food and optimal health including physical fitness and the relationships between nutritional imbalances and diseases. (3 hr. lecture)

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 sea life; geology of the sea floor, erosion and bottom deposits and related meteorological and economic effects. (3 hr. lecture)

OCE1001L**Introduction to Oceanography Laboratory 1 credit**

An introduction to principles of ocean basin and sea water with a survey of the origins of oceanic patterns and climatic relationships. (2 hr. lab)

OCP3002**Survey of Oceanography 3 credits**

This course explores the ocean origin, physical properties, salinity, temperature, sound, radiative properties, heat budget and climatic controls, tides, wind-driven motion, monsoon circulation, El Nino phenomenon, subsurface water masses, oceanic circulation and paleoclimates. This course is designed for upper level students pursuing a BS in Science Education. Prerequisites: GLY 1010, OCE1001; corequisite: OCP 3002L. (3 hr. lecture)

OCP3002L**Survey of Oceanography Laboratory 1 credit**

A laboratory course designed to give students hands-on knowledge of specific concepts discussed in OCP 3002. (2 hr. lab)

Office Technology

OST1100**Beginning Keyboarding 3 credits**

This course emphasizes techniques and skills in keyboarding and introduces how to format business papers such as letters, manuscripts and tabulated material. Corequisite: OST 1100L. Special fee. (3 hr. lecture)

OST1100L**Beginning Keyboarding Laboratory 1 credit**

This one-credit keyboarding lab will enable students to practice speed and accuracy drills and to complete class problem assignments given in the Beginning Keyboarding class. Special fee. (2 hr. lab)

OST1108**Keyboarding Skillbuilding 2 credits**

This course emphasizes building speed and accuracy in keyboarding, using proper techniques. Students will pretest, identify individual weaknesses, practice the prescribed drills, develop rhythmic typing skills through the use of tapes, post-test, and compare improvement in accuracy and/or speed. Prerequisite: OST 1100 or knowledge of the keyboard. Special fee. (2 hr. lecture)

OST1110**Keyboarding Application 3 credits**

This course emphasizes keyboarding speed and accuracy and provides training in the keying and formatting of business correspondence, including letters, memorandums, reports, tables with special features, and miscellaneous documents such as itineraries, news releases, and agendas. Prerequisite: OST 1100 or credit by examination. corequisite: OST 1110L. Special fee. (3 hr. lecture)

OST1110L**Keyboarding Application Laboratory 1 credit**

This one-credit keyboarding lab will enable students to develop keyboarding/formatting production speed and accu-

racy. Prerequisite: OST 1100 or credit by examination; corequisite: OST 1110. Special fee. (2 hr. lab)

OST1141**Keyboarding for Computers 1 credit**

This course emphasizes techniques and skills in keyboarding. Special fee. (2 hr. lab)

OST1330**Business English 3 credits**

Business English covers the study of the principles and rules of punctuation, capitalization, spelling, and grammar. The course emphasizes the application of these principles to enable the student to use correct English and to develop good communication skills. Special fee. (3 hr. lecture)

OST1601**Machine Transcription 1 3 credits**

This course provides an introduction to transcription from audio cassettes using transcribing equipment. Emphasis in this first-level transcription class is placed on simultaneously operating equipment and applying grammar, formatting, proofreading, and punctuation skills. Rough draft copies are prepared and proofread before final copies are produced. Pre/corequisites: Students entering this course should have a typing skill of at least 30 words per minute or have successfully completed OST 1100, Beginning Keyboarding and should have knowledge of a word processing software application. The student should also have completed OST 1330, Business English. Special fee. (3 hr. lecture)

OST1700**Word Processing Office 1 credit**

This entry-level 1 credit course will introduce basic functions of a word processing program currently on the market. This course covers basic functions and simple applications using the word processing program. Special fee. (1 hr. lecture)

OST1702**Office Procedures 1 3 credits**

This course introduces students to careers in office technology and emphasizes various ways information is electronically processed in today's office environment. Special emphasis is placed on units in career information, business telephone usage, filing, and human relations skills needed to be successful as an office worker. Corequisites: OST 1100, 1100L, 1330. Special fee. (3 hr. lecture)

OST1741**Beginning Word Processing 3 credits**

In this course the student will be learning basic functions using a popular word processing, basic functions, and simple applications using the word processing program. In addition, this course covers the basic functions and information about Microsoft Windows, the disk operating system. The student will also be required to complete lab assignments. Corequisite: OST 1741L. Special fee. (3 hr. lecture)

OST1741L**Beginning Word Processing Laboratory 1 credit**

This course is a corequisite to the Beginning Word Processing course. In this course the student will be applying basic functions using a popular word processing program currently on the market. This course covers theory and definitions of word processing, basic functions, and simple applications using the word processing program. In addition, this course covers the basic functions and information about Microsoft Windows, the disk operating system. Corequisite: OST 1741. Special fee. (2 hr. lab)

OST1821**Desktop Publishing Applications 3 credits**

Teaches how to use a desktop publishing software program on a microcomputer system with a mouse. Students will learn how to design different types of publications to include text and graphics for newsletters, flyers, posters, brochures, and booklets or for any other publishing need. No prior design or publishing experience is required. A.S. degree credit only. Prerequisite: OST 1741. Special fee. (3 hr. lecture)

OST1851**Spreadsheets for the Office 1 credit**

This entry-level 1-credit class emphasizes an introduction to the use of a spreadsheet for microcomputers. The class will provide an understanding of what a spreadsheet is, how it works, and its applications in business will be introduced. Classes are conducted in a laboratory environment where a 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)

OST2221**Machine Shorthand 1 4 credits**

This is the beginning course in machine shorthand. This course emphasizes learning to write the Phoenix theory on the shorthand machine as well as the ability to read rapidly from shorthand notes. The student will be required to write vocabulary words on the shorthand machine and then transcribe them into correct English. Good skills in grammar and spelling are necessary for success in this course. Pre/corequisite: OST 1100. Special fee. (4 hr. lecture)

OST2222**Machine Shorthand 2 4 credits**

This is the second course in machine shorthand. This course emphasizes reviewing the Phoenix theory on the shorthand machine as well as to continue to increase speed on the shorthand machine. The student will be required to take timed dictation on the shorthand machine and then transcribe on a keyboard utilizing all the skills of a good transcriptionist. Good skills in grammar and spelling are necessary for success in this course. Prerequisite: OST 2221. Special fee. (4 hr. lecture)

OST2223**Machine Shorthand 3 3 credits**

This is the intermediate course in machine shorthand. This course emphasizes two-voice dictation, jury charge, and literary dictation. The student will be required to take timed dictation on the shorthand machine and then transcribe on a keyboard utilizing all the skills of a good transcriptionist. Good skills in grammar and spelling are necessary for success in this course. Prerequisite: OST 2222 (Machine Shorthand 2) Students entering this course should have earned a minimum of a "C" grade in Machine Shorthand 2 or the equivalent (passed dictation tests at 80 wpm for three minutes with 97 percent accuracy), should be able to type at least 35 words per minute, and should have good skills in grammar, spelling and punctuation. It is recommended that the student have completed or be enrolled in Keyboarding and Word Processing. Special fee. (3 hr. lecture)

OST2224**Machine Shorthand 4 3 credits**

This is the fourth course in machine shorthand. This course emphasizes two-voice dictation, jury charge, and literary dictation. The student will be required to take timed dictation on the shorthand machine and then transcribe on a keyboard utilizing all the skills of a good transcriptionist. Good skills in grammar and spelling are necessary for success in this course. Prerequisite: OST 2223 (Machine Shorthand 3). Students entering this course should have earned a minimum of a "C" grade in Machine Shorthand 3 or the equivalent (passed literary dictation at 100 wpm, jury charge dictation at 110wpm, and testimony of 120 for three minutes with 97 percent accuracy), should be able to type at least 45 words per minute, and should have good skills in grammar, spelling and punctuation. At this time the student should have completed or be enrolled in Business Writing and Legal Dictation and Transcription. Special fee. (3 hr. lecture)

OST2225**Machine Shorthand 5 3 credits**

This is the fifth course in machine shorthand. This course emphasizes two-voice dictation, jury charge, and literary dictation. The student will be required to take timed dictation on the shorthand machine and then transcribe on a keyboard utilizing all the skills of a good transcriptionist. Good skills in grammar and spelling are necessary for success in this course. Prerequisite: OST 2224 (Machine Shorthand 4). Students entering this course should have earned a minimum of a "C" grade in Machine 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 percent accuracy), should be able to type at least 45 words per minute, and should have good skills in grammar, spelling, and punctuation. At this time the student should have completed or be enrolled in Medical Dictation and Transcription. Special fee. (3 hr. lecture)

OST2226**Machine Shorthand 6 3 credits**

This is the final course in machine shorthand. This course emphasizes achieving the speeds on two-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 percent accuracy), should be able to type at least 45 words per minute, and should have good skills in grammar, spelling, and punctuation. At this time the student should have completed Medical Dictation and Transcription, Legal Dictation and Transcription, and Court Procedures and Law Terms. Special fee. (3 hr. lecture)

OST2231**Computer Aided Transcription 3 credits**

Computer Aided Transcription (CAT) teaches the students the correct techniques to use and procedures to follow when using computer aided transcription hardware and software similar to most computer courses. Students will be given dictation to be written on a stenotype keyboard. The students will prepare transcripts utilizing a computer aided transcription system where a machine shorthand theory will be input, translated, edited, and output. Students will be evaluated on the number of transcripts completed, the quality of transcripts and attendance. Prerequisite: OST 2221. Special fee. (3 hr. lecture)

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, HIM 2472. Special fee. (3 hr. lecture)

OST2335**Business Writing 3 credits**

Covers the procedures for writing effective business letters and memorandums, a review of grammar, and the proper format of today's business correspondence. Students learn how to prepare inquiry letters, direct and indirect response letters, application letters and

resumes, and short reports. Prerequisite: OST 1330. (3 hr. lecture)

OST2362**Database Applications for Business 3 credits**

This is a comprehensive course in the use of a database for microcomputers. This course is designed to provide training on concepts, features, and commands of a database for business and office administration applications. Classes are conducted in a hands-on lecture/laboratory environment where a microcomputer is available for each student. The content of this course will continually change to keep pace with current technology. The lab emphasizes the use and practice of a database for microcomputers. Prerequisite: CGS 1060 or OST 2854C; corequisite: OST 2362L. Special fee. (3 hr. lecture)

OST2362L**Database Applications Laboratory 1 credit**

Emphasis is on providing practice in applying concepts, features and commands of a database for business and office administration applications. This course is designed to assist the student to create a customized database, modify the structure of an existing database, retrieve information from a database, and integrate database applications with other applications. Corequisite: OST2362. Special fee. (2 hr. lab)

OST2387**Certified Professional Secretary Exam Preparation 1 3 credits**

This course is designed to prepare students for the Certified Professional Secretary examination where they will demonstrate knowledge of the concepts taught in economics, Management, Behavioral Science in Business and Business Law. (3 hr. lecture)

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 (1) 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 relation skills, and advanced office techniques using simulations. Prerequisites: OST 1110, 1702, 1741. Special fee. (3 hr. lecture)

OST2431**Legal Office Procedures 3 credits**

The Legal Office Procedures course will provide training in the procedures for preparing and processing legal documents and court papers. Students will perform legal office activities by applying correct legal terminology, following standard legal procedures for the functions of the court system, and employing techniques used in conducting legal research. Prerequisites: OST 1110, 1702, 2436. Special fee. (3 hr. lecture)

OST2436**Court Procedures & Law Terms 3 credits**

The course content includes information relating to the daily role of the legal office administrator and court reporter and the terminology used in the legal profession. Special fee. (3 hr. lecture)

OST2602**Machine Transcription 2 3 credits**

This course is the advanced level of transcription from audio cassettes using transcribing equipment. Emphasis in this second-level transcription class is placed on simultaneously operating equipment and applying grammar formatting, proofreading, and punctuation skills to specialized office documents. Rough draft copies are prepared and proofread before final copies are produced. Prerequisites: OST 1110, 1601. Special fee. (3 hr. lecture)

OST2760**Advanced Word Processing 3 credits**

Emphasizes enhanced functions of WordPerfect, a leading word processing software program. Topics include merging, macros, text columns, outlines, tables, footnotes, and endnotes. An introductory unit is included on a microcomputer disk operating system's concepts, features, and commands. Prerequisites: OST 1741, 1741L with grades of "C" or better; corequisite: OST 2760L is required. (3 hr. lecture)

OST2760L**Advanced Wordprocessing Lab 1 credit**

This course is a corequisite to the Advanced Word Processing course OST 2760. In this course the student will be applying the advanced functions taught in the OST 2760 course using a popular word processing program currently on the market. This course covers the application of theory and definitions of word processing, advanced functions, and advanced applications using Windows, the disk operating system. Prerequisites: OST 1100, 1741; corequisite: OST 2760. Special fee. (2 hr. lab)

OST2828**Presentation Software for the Office 1 credit**

The hands-on, one credit class is designed to provide students with an introductory experience on the use of presentation graphic

software for office and business applications. This class covers basic presentation software concepts, features, and functions. Classes are conducted in a laboratory environment where a microcomputer is available for each student. The content of this class will continually change to keep pace with current technology. Special fee. (1 hr. lecture)

OST2852**Spreadsheet Applications/Business 3 credits**

This hands-on, three-credit course emphasizes the use of a spreadsheet for microcomputers. This course is designed to provide concepts, features, and commands of a spreadsheet for business and office administration applications. Classes are conducted in a hands-on lecture/laboratory environment where a microcomputer is available for each student. The content of this course will continually change to keep pace with current technology. The lab emphasizes the use and practice of a spreadsheet for microcomputers. Corequisite: OST 2852L. (3 hr. lecture)

OST2852L**Spreadsheet Applications for Business Laboratory 1 credit**

Emphasis is on the use and practices of utilizing a spreadsheets in a business environment. This course is designed to provide training in concepts, features, and commands of a spreadsheet for business and office administration applications. This includes designing and creating worksheets, formatting worksheets, analyzing worksheet data, and working with workbooks. Special fee. (2 hr. lab)

OST2854C**Microcomputers for the Office 4 credits**

This hands-on, four-credit course is designed to present the first-time computer user the features of a microcomputer, how it works, and how to select a microcomputer to best fit individual needs. Students can acquire an increased awareness of the operating systems and major features of popular applications. This course offers an introduction to the fundamentals of microcomputers and specialized software used for office and business applications, including word processing, database, spreadsheets, operating systems and presentation software. Classes are conducted in a hands-on lecture laboratory environment where a microcomputer is available for each student. The content of this course will continually change to keep pace with current technology. Special fee. (3 hr. lecture; 2 hr. lab)

OST2930**Office Administration Lab 1 credit**

This one-credit lab is designed for students who need to complete work for any Office Administration course that does not normally require a lab course. This course gives students access to the computer lab rooms during preset lab hours. The students will be able to practice speed and accuracy drills,

complete class problem assignments, complete computer software application problems, complete business English assignments, complete machine transcription assignments, complete business writing assignments and complete office procedures assignments. Corequisite: Any OST course. Special fee. (2 hr. lab)

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 Co-operative Education Office to obtain registration approval. Prerequisite: 2.0 GPA, approval of Co-op Director, and a minimum of 6 credits in field or approved work experience. (3 hr. lecture)

PLA2003**Fundamentals of Law 3 credits**

This course provides students with an overview of the American legal system. It explores the basic concepts of law in society including the different sources of law. The federal, state and county court systems are examined along with judicial interpretation of the law. The course also covers the distinctions between procedural and substantive law, civil versus criminal and a court of equity and a court of law. The roles of paralegals are discussed with an emphasis given in their professional relationships, functions, career opportunities and ethical obligations. Prerequisite: ENC 1101. Special fee. (3 hr. lecture)

PLA2104**Legal Research 3 credits**

This course provides students with an understanding of the process of legal analysis. Students will become familiar with research materials, tools, strategies, and learn how to locate research sources in a traditional law library. Prerequisite: PLA 2003. Special fee. (3 hr. lecture)

PLA2114**Legal Writing 3 credits**

This course provides knowledge and understanding of how to present legal research and analysis in proper written format. As legal research is an integral part of legal writing, the course will reinforce the skills used in legal research. It will also cover basic writing skills, the process of legal analysis, methodology involved in drafting a Memorandum of law, practice in drafting pleadings, and various types of specific law office correspondence. Prerequisites: ENC 1101, PLA 2003, 2104. (3 hr. lecture)

PLA2203**Trial Preparation 3 credits**

Trial Preparation focuses on the role of the paralegal in litigation and involves knowledge of the rules of civil procedure and the preparation and use of various written instruments utilized throughout the trial process. Prerequisites: PLA 2104, 2114. Special fee. (3 hr. lecture)

PLA2223**Trial Practice & Appeals 3 credits**

Trial Practice and Appeals examines the differences between jury and bench trials, the trial process, and the role of the litigation paralegal who assists the attorney in the preparation for trial. Prerequisites: PLA 2114, 2203. Special fee. (3 hr. lecture)

PLA2273**Torts 3 credits**

This course provides an examination of the theories governing tort law and the use of various pre-litigation tools. Topics covered include intentional torts, negligence and strict liability. The course also requires students to utilize the knowledge obtained to draft documents employed in practice. Prerequisites: PLA 2114, 2203. Special fee. (3 hr. lecture)

PLA2303**Criminal Law & Litigation 3 credits**

This course focuses on the substantive areas of criminal law including the offenses, elements, defenses and parties to a criminal law proceeding. It also emphasizes the role of the criminal justice system in adjudicating, enforcing and sentencing criminal defendants. It examines the Florida Rules of Criminal Procedure and provides practice in drafting documents required in the conduct of a criminal trial. Prerequisites: PLA 2114, 2203. Special fee. (3 hr. lecture)

PLA2600**Wills, Trust, Estate 3 credits**

Wills, Trusts, and Estates is a study of the laws governing wills and interstate succession. The course provides practice in drafting a simple will and trust. It also examines the procedures and rules involved in probate administrations and explains the ethical obligations of attorneys and paralegals who are involved in this area of practice. Prerequisites: PLA 2114, 2203, REE 2040. Special fee. (3 hr. lecture)

PLA2763**Law Office Management 3 credits**

A survey of economical and efficient law office practices and procedures including the proper use of law office equipment; business data processing law office management, personnel selection, training and management; employer/employee relationships; correct utilization of time and space; correct time keeping and billing procedures. Prerequisites: PLA 2114, 2203. Special fee. A.S. degree credit only. (3 hr. lecture)

PLA2800**Family Law 3 credits**

An examination of the legal aspects of domestic relations. This course focuses upon dissolution of marriage law with emphasis on pleadings, discovery, and property settlements. Other areas of family law such as adoption and annulment will be reviewed. Prerequisites: PLA 2114, 2203. A.S. degree credit only. (3 hr. lecture)

PLA2931**Legal Specialty Seminars 1 credit**

Intensive practical and theoretical training is provided in a seminar format. The seminar topics cover current and timely legal issues and are addressed by practicing attorneys. The topics are announced at the beginning of the Fall and Spring 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 Spring 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 Spring 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 Spring 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 Spring 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 Spring semesters. Prerequisites: PLA 2003, 2104, 2114. A.S. degree credit only. (1 hr. lecture)

PLA2940**Legal Assisting Internship 1-3 variable credits**

Prerequisite: Permission of the Program Director.

Philosophy and Logic

PHI1100**Introduction to Logic 3 credits**

This is a foundation course in philosophy. Students will learn the basic principles of valid reasoning, and practice in the application of various techniques of analysis. (3 hr. lecture)

PHI2010**Introduction to Philosophy 3 credits**

This is a foundation course in philosophy. Students will learn about topics such as epistemology, metaphysics and ethics. The course introduces the methods of philosophy, addresses some major philosophical questions and examines the views of various philosophers from around the world. Prerequisite: ENC 1101. Gordon Rule assigned. (3 hr. lecture)

PHI2070**Introduction to Eastern Philosophy 3 credits**

This is a foundation course in philosophy. Students will learn various philosophies of the East. Philosophers from various traditions such as Buddhism, Confucianism, Hinduism and Taoism will be discussed and analyzed. (3 hr. lecture)

PHI2604**Critical Thinking/Ethics 3 credits**

This is a foundation course in philosophy. Students will learn critical thinking skills and will study major theories of ethics. Students will use methods of effective reasoning to reflect critically upon their values, ethical standards, and the ethical permissibility of topics such as euthanasia, animal rights, and environmental ethics. Prerequisite: ENC 1101 (3 hr. lecture)

PHM2300**Political Philosophy 3 credits**

This is a foundation course in philosophy. Students will learn major political theories by examining the ideas of various political philosophers. In order to evaluate the policies and practices of contemporary societies, basic philosophical concepts which underlie modern societies such as rights, duties, legal obligations, and freedoms will be discussed and analyzed. (3 hr. lecture)

Photography**PGY2110C****Color****Photography 1 3-4 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)

PGY2211**Portrait and****Still Photography****4 credits**

Fundamentals of portrait and still photography are presented. Basic and advanced exercises are taught in lighting, posing, make-up and camera angles. Composition, lighting and design functioning to describe people and objects for a variety of clients are explored. Prerequisite: PGY 2410C. (1-2 hr. lecture; 4 hr. lab)

PGY2221**Illustrative Photography 1****4 credits**

The use of the camera to illustrate either an original concept or a concept provided by an art director for clients such as magazines, manufacturing concerns, advertising agents, newspapers, technical publications and schools. The creative approach is stressed in planning and production-effective color

and black/white illustrations. Prerequisite: PGY 2410C. Laboratory fee. (1-2 hr. lecture; 4 hr. lab)

PGY2222**Fashion Photography****4 credits**

The production of commercially viable photographs illustrating clothes as desirable objects as well as recent trends in fashion industry are studied. An awareness of mood, make-up, and dramatic impact is stressed. (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)

PGY2404C**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 continued development of aesthetics. Corequisite: PGY 2401C. Laboratory fee. (1-2 hr. lecture; 4 hr. lab)

PGY2470C**Portfolio Preparation****4 credits**

Provides graduating students individual guidance and direction in the preparation of their portfolios. Emphasis is given to the realization of new photographic images. Prerequisite: PGY 2111C, 2210, 2221, 2222. Laboratory fee. (1-2 hr. lecture; 4 hr. lab)

PGY2475**Advanced****Photography****3-4 variable credits**

The production of advanced portfolio in black and white or color, while emphasizing photography as a studio area in art. A continuation in the development of both technical and aesthetic concerns for the art student majoring in photography. Prerequisite: PGY 2410C. (2 hr. lecture; 4 hr. lab)

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 ones personal wellness goals. (2 hr. lecture/lab)

HLP1081**Fitness &****Wellness for Life****3 credits**

In this course students will learn the roles of exercise, physical activity, diet, and stress management in achieving optimal wellness. Students will explore current developments in health and complete lab assignments, which will assist in the determination of their current health status. Individualized exercise and dietary protocols based on these assessments will be developed. Special fee. (3 hr. lecture/lab)

HLP1083**Weight Management****3 credits**

This course is designed for students to develop an understanding of the role of exercise and nutrition as it applies to the implementation of a weight management plan. (3 hr. lecture)

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 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 health behavioral change in teaching resistance weight training with an emphasis on Nautilus. Prerequisites: HLP 1081, 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 2303. 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 Assistants 2 credits
Regional description of the musculoskeletal landmarks utilized in implementing and documenting assessment and treatment procedures in physical therapy. Corequisites: BSC 2085, 2085L, PHT 1201, 1201L, 1211, 1211L, PHY 1004, 1004L. (2 hr. lecture)

PHT1201**Introduction to**

Physical Therapy 2 credits
Survey and history of the physical therapy profession. Role and responsibilities of the physical therapist assistant as they react with patients and other health care workers are discussed. Overview of common medical and surgical conditions treated in physical therapy is presented. Corequisites: BSC 2085, 2085L, PHT 1102, 1201L, 1211, 1211L, PHY 1004, 1004L. (2 hr. lecture)

PHT1201L**Introduction to****Physical Therapy****Laboratory**

1 credit
Basic patient care and treatment procedures which are typically required in a physical therapy service area. Treatment procedures include the proper administration of steam packs, cold packs, paraffin, whirlpool, and gait training. Corequisites: BSC 2085, 2085L, PHT 1102, 1201, 1211, 1211L, PHY 1004, 1004L. Laboratory fee. (2 hr. lab)

PHT1211**Disabilities and****Therapeutic Procedures 1**

2 credits
Cause and effect factors associated with selected orthopedic and neuromuscular disabilities. Corequisites: BSC 2085, 2085L, PHT 1211L, 1201, 1201L, 1102, PHY 1004, 1004L. (2 hr. lecture)

PHT1211L**Disabilities and****Therapeutic****Procedures 1 Lab**

1 credit
Laboratory practice of basic technical skills relating to electrohydrotherapy, therapeutic exercise and patient care procedures. Corequisite: BSC 2085, BSC 2085L, PHT 1102, 1201, 1201L, 1211, PHY 1004, 1004L. Laboratory fee. (2 hr. lab)

PHT1949**Co-op Work**

Experience 1: PHT 3 credits
This is a course designed to continue training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-op Department approval. Students will be assigned specific course

prefixes related to their academic major prior to registration. All students must contact the 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: BSC 2086, 2086L, PHT 2120L, 2224, 2224L. A.S. degree credit only. (2 hr. lecture)

PHT2120L**Applied Kinesiology****Laboratory**

1 credit
Procedures in measuring and analyzing muscle strength and function as related to the biomechanics of human motion. Prerequisites: PHT 1201, 1211, 1211L; corequisites: BSC 2086, 2086L, PHT 2120, 2224, 2224L. Laboratory fee. A.S. degree credit only. (2 hr. lab)

PHT2162**Survey of****Neurological Deficits**

3 credits
Survey and description of clinical manifestations of neurological dysfunction frequently treated in physical therapy. Prerequisites: PHT 2120, 2120L, 2224, 2224L; corequisites: PHT 2701, 2701L, 2801. (3 hr. lecture)

PHT2224**Disabilities and****Therapeutic Procedures 2**

4 credits
Cause and effect factors associated with the more complex medical and surgical problems resulting in disability. Prerequisites: PHT 1201, 1211, 1211L; corequisites: BSC 2086, 2086L, PHT 2120, 2120L, 2224. (4 hr. lecture)

PHT2224L**Disabilities and****Therapeutic****Procedures 2 Lab**

2 credits
Laboratory practice of more complex technical skills and competencies related to preparing equipment and treatment of patients with a variety of medical, surgical and neuromuscular disabilities. Prerequisites: PHT 1201, 1211, 1211L; corequisites: BSC 2086, 2086L, PHT 2120, 2120L, 2224. Laboratory fee. (4 hr. lab)

PHT2701**Rehabilitation Procedures**

3 credits
Clinical manifestations and treatment techniques related to physical therapy, intervention for children and adults with injuries and disabilities (spinal cord and brain injuries or disease, limb amputations, burns). Prerequisites: PHT 2120, 2120L, 2224, 2224L. corequisites: PHT 2162, 2701L 2801. (3 hr. lecture)

PHT2701L**Rehabilitation Procedures**

Laboratory 2 credits
Laboratory practice in the technical skills and competencies required in the total rehabilitative care and treatment of the child or adult who has had a severe injury or disease resulting in multiple disabilities. Prerequisites: PHT 2120, 2120L, 2224, 2224L; corequisites: PHT 2162, 2701, 2801. Laboratory fee. (4 hr. lab)

PHT2801**Clinical Practice and Conference 1****4 credits**

Beginning clinical experiences in supervised patient care activities in a variety of clinical facilities including general hospitals and physical therapy clinics. Prerequisites: PHT2120, 2120L, 2224, 2224L; PHT 2162, 2701, 2701L. (12 hr. clinic)

PHT2810**Clinical Practice and Conference 2****5 credits**

Intermediate clinical experiences in selected patient care activities under the supervision of a licensed physical therapist. Prerequisites: PHT 2162, 2701, 2701L, 2801; corequisite: PHT 2931. (15 hr. clinic)

PHT2820**Clinical Practice and Conference 3****7 credits**

Advanced clinical experiences in patient care activities under the direct supervision of a licensed physical therapist. Prerequisites: PHT 2810, 2931. (21 hr. clinic)

PHT2931**Seminar for Physical Therapist Assistants****3 credits**

Recognition of the expected current competency levels, and ethical and legal responsibilities of the physical therapist assistant in the health care system. Prerequisites: PHT 2162, 2701, 2701L, 2801. corequisite: PHT 2810.A.S. degree credit only. (3 hr. lecture)

PHT2949**Co-op Work****Experience 2: PHT****3 credits**

This is a course designed to continue training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-op Department approval and completion of 1949 Co-op work experience. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval. (3 hr. lecture)

Physician Assistant

PAS1800C**Physical Diagnosis 1****2 credits**

A course which provides the students with the critical basis for and clinical exposure to techniques used in the proper performance

and recording of the physical examination of patients. Prerequisites: BSC 2085, 2085L, 2086, 2086L, CHM 1033, 1033L. (1.5 hr. lecture; 1.5 hr. lab)

PAS1801C**Physical Diagnosis 2****2 credits**

In the hospital and classroom setting, the student will obtain experience in performing and recording patient histories and physical examinations and presenting clinical data. Prerequisites: MCB 2010, 2010L, PAS 1800C, 1812, 1813, 1822C, 1823, 1831. (1.5 hr. lecture; 1.5 hr. lab)

PAS1810C**Surgical Problems & Procedures****5 credits**

During this course the student will be exposed to the various aspects of general, orthopedic, cardiovascular, thoracic, ENT, neurologic, urologic, and pediatric surgical problems, their diagnosis and treatment. Laboratory components of this course will include learning fundamental techniques necessary in preoperative and postoperative care, including nasogastric intubation, central venous line placement, arterial and venous punctures and sterile techniques. Prerequisites: PAS 1801C, 1811, 1821, 1824, 1830. (4 2/3 hr. lecture; 1 hr. lab)

PAS1811**Introduction to****Medicine 1 for PAs****5 credits**

The first course in the sequence PAS 1811, 1820. Focuses on signs, symptoms, and pathophysiology of common diseases affecting pediatric, adult, and geriatric patients; diagnosis, therapeutic intervention and follow-up; patient education and preventative medicine are included. Prerequisites: MCB 2010, 2010L, PAS 1800C, 1812, 1813, 1822C 1823, 1831. (5 hr. lecture)

PAS1812**Behavioral &****Community Medicine 1****for PAS****1 credit**

A biopsychosocial system approach to identify the individual, the family and community within the health care delivery system. Studies the American health care system, emphasizing the role of the PA profession, patient education, preventative medicine, community health, and medical legal ethics. Prerequisites: BSC 2085, 2085L, 2086, 2086L, CHM 1033, 1033L. (1 hr. lecture)

PAS1813**Pathophysiological****Basis of Disease 1****2 credits**

First course in the sequence PAS 1813, 1824. An introduction to the underlying pathologic bases for specific disease processes. Prerequisites: BSC 2085, 2085L, 2086, 2086L, CHM 1033, 1033L. (2 hr. lecture)

PAS1820**Introduction to****Medicine 2 for PAs****5 credits**

The second course in the sequence PAS 1811, 1820. Focuses on signs, symptoms, and patho-

physiology of common diseases of all ages. Prerequisites: PAS 1801C, 1811, 1821, 1824, 1830. (5 hr. lecture)

PAS1821**Behavioral &****Community Education****Medicine 2 for PAS****1 credit**

The second course in the PAS 1812, PAS 1821 sequence. A continuation of the study of the biopsychosocial model for health. Prerequisites: PAS 1801C, 1812, 1813, 1822C, 1823, 1831. (1 hr. lecture)

PAS1822C**Electrocardiography/****Cardiology****2 credits**

A study of the principles and practical application of electrocardiography for the physician assistant. Includes practice in Basic and Advanced Cardiac Life Support measures for life threatening emergencies. Prerequisites: BSC 2085, 2085L, 2086, 2086L, CHM 1033, 1033L. (1 2/3 hr. lecture; 1/3 hr. lab)

PAS1823**Pharmacology****2 credits**

The first course in the sequence PAS 1823, 1830. The study of the preparation, uses, and action of drugs. Prerequisites: BSC 2085, 2085L, 2086, 2086L, CHM 1033, 1033L. (2 hr. lecture)

PAS1824**Pathophysiological****2 credits**

A continuation of PAS 1813 Focus is on cell dynamics and immunity. Prerequisites: MCB 2010, 2010L, PAS 1800C, PAS 1812, 1813, 1822C, 1823, 1831. (2 hr. lecture)

PAS1830**Pharmacotherapeutics****4 credits**

The second course in the sequence PAS 1823, 1830. The study of the use of drugs to treat disease, including contraindication and incompatibilities; drug interactions; side effects and their treatment, and dosages and calculations. Prerequisites: PAS 1800C, 1812, 1813, 1822C, 1823, 1831. (4 hr. lecture)

PAS1831**Clinical Diagnostic Imaging****1 credit**

A study of multiple imaging modalities employed in the diagnosis of pathologic processes. Prerequisites: BSC 2085, 2085L, 2086, 2086L, CHM 1033, 1033L. (1 hr. lecture)

PAS2840L**Internal Medicine****4 credits**

The clinical course focuses on basic medical practice. The student is exposed to common medical problems encountered on in-patient and out-patient medical services. Emphasis is placed on the history and physical examination and the process required in the proper work-up and management of the patient. Patient care experience in the various subdivisions of internal medicine including oncology, hematology, neurology, nephrology, gastroenterology, rheumatology, pulmonology, cardiology, and infectious diseases may be required. Prerequisites: PAS 1810C, 1821, 1820, 1830. (18 hr. lab)

PAS2841L**Geriatrics****2 credits**

This clinical course provides the opportunity for students to become familiar with common physical and psychological problems encountered by the geriatric patient including cardiac and respiratory insufficiency, urinary tract infection, strokes, and diabetes mellitus. Prerequisites: PAS 1810C, 1820, 1821, 1830. (9 hr. lab)

PAS2842L**Psychiatry****2 credits**

This clinical course in a psychiatric care setting will allow students to participate in daily rounds and become knowledgeable of the use of psychotropic medications for psychiatric disorders. Group therapy sessions will be a major part of the learning experience. Prerequisites: PAS 1810C, 1820, 1821, 1830. (9 hr. lab)

PAS2850L**Surgery****2 credits**

During the clinical course the student will be exposed to a variety of clinical problems routinely seen on the surgical service. Emphases will be placed on preoperative, intraoperative and postoperative management of the patient. In the operating room the student will practice aseptic technique, operating room principles, and assist in surgery. Prerequisites: PAS 1820, 1821, 1830. (9 hr. lab)

PAS2860L**Pediatrics****4 credits**

This clinical course in pediatric care settings will introduce students to childhood illnesses and normal variations of growth and development. Students will perform histories and physical examinations and manage patients in the newborn nursery, pediatric out-patient clinic and emergency room. Prerequisites: PAS 1810C, 1820, 1821, 1830. (18 hr. lab)

PAS2866L**Family Medicine****4 credits**

This clinical course introduces the student to the family practice setting where emphasis is placed on the common diseases treated by primary care practitioners in conjunction with other members of the health care team. The student is exposed to rural epidemiology, cultural diversity, and problems that affect delivery of health care in rural and underserved areas. Prerequisites: PAS 1810C, 1020, 1821, 1830. (18 hr. lab)

PAS2870L**Obstetrics/Gynecology****2 credits**

During this clinical course the student will participate on the obstetrical service managing pregnancy, labor and delivery and be introduced to pre-and postnatal complications. The student will also participate in the management of common gynecologic problems. Prerequisites: PAS 1810C, 1820, 1821, 1830. (9 hr. lab)

PAS2876L**Emergency Medicine****2 credits**

This clinical course in an emergency care setting will provide opportunities for the

student to manage the acutely ill and traumatized patient. The student will learn to perform history and physical examination on the acutely ill patient with emphasis being placed on the management and support measures necessary in situations which are life threatening. Prerequisites: PAS 1810C, 1820, 1821, 1830. (9 hr. lab)

PAS4470**Physician Assistant****Practice Management****3 credits**

This course is designed to assist the PA in understanding and applying the principles of management to a primary care practice. Students will learn the basic concepts of managing the patient/client, the office and medical team. (3 hr. lecture)

PAS4936**Contemporary Issues****for the PA****3 credits**

In this course the student will examine current issues, challenges, and practices influencing leaders in the field of health care education. The student will learn to use evidenced based medicine to research topics including leadership perspectives on health care education and promotion; the changing nature of health care delivery in the United States; demographic, economic, ethical, and political factors influencing the practice of health education. (3 hr. lecture)

PAS4946**Physician Assistant****Capstone Course****3 credits**

This is an experiential course that incorporates all the learning competencies of the BAS-HS with an option in PA courses. The student will learn to apply the knowledge, skills and abilities they have garnered throughout the program by identifying, researching and presenting a current challenge or trend in healthcare. (3 hr. lecture)

Physics

AST1002**Descriptive Astronomy****3 credits**

The solar system, the nature of electromagnetic radiation, astronomical instruments, stars, galaxies, and cosmology. Sessions are devoted to viewing the sky and to laboratory activities. Special fee. (3 hr. lecture)

AST1002L**Descriptive Astronomy****Laboratory****1 credit**

This is a laboratory course available to students taking the introductory Astronomy course AST 1002. Students will learn to obtain astronomically relevant scientific information by performing experiments, exercises or observations. They will learn to measure, collect, and analyze scientific data, to do calculations with the data, and to report their results. (2 hr. lab)

PHY1004**Physics with****Applications 1****3 credits**

Emphasizes the basic concepts and principles and their practical applications. Designed specifically for students in technical studies and for others wishing to strengthen their physics background before taking advanced courses. Prerequisite: MAT 1033 with a grade of "C" or better; corequisite: 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 1025 or PHY 2053 or departmental approval and MAC 2311; corequisite: PHY 2048. Laboratory fee. (2 hr. lab)

PHY2049**Physics With Calculus 2 4 credits**

Foundation course for physical science and engineering majors. PHY 2048 covers classical mechanics and thermodynamics. PHY 2049 includes electricity, magnetism, waves and optics. Prerequisite: PHY 2048; corequisites: PHY 2049L and MAC 2312. Special fee. (4 hr. lecture)

PHY2049L**Physics with Calculus 2 Lab 1 credit**

Laboratory for PHY 2049. Prerequisite: PHY 2048; corequisites: PHY 2049 and MAC 2312. Laboratory fee. (2 hr. lab)

PHY2053**Physics (without Calculus) 1 3 credits**

An introduction to the basic principles of physics. PHY 2053 covers mechanics, sound and thermodynamics. Prerequisite: MAC 1114 or MAC 1147; corequisite PHY 2053L. Special fee (3 hr. lecture)

PHY2053L**Physics (without Calculus) 1 Lab 1 credit**

Laboratory for PHY 2053. Prerequisite: MAC 1114 or MAC 1147 corequisite: PHY 2053L. Special fee. (2 hr. lab)

PHY2054**Physics (without Calculus) 2 3 credits**

An introduction to the basic principles of physics. PHY 2053 covers mechanics, sound and thermodynamics. PHY 2054 includes electricity, magnetism and optics. Prerequisite: PHY 2053; corequisite: PHY 2054L. Special fee. (3 hr. lecture)

PHY2054L**Physics (without Calculus) 2 Lab 1 credit**

Laboratory for PHY 2054. Prerequisite: PHY 2053; corequisite: PHY 2048. Laboratory fee. (2 hr. lab)

PHY3019**Technology in Physics Teaching 3 credits**

This course will expose the prospective teacher to a broad collection of technologies currently used in the physics classroom environment and beyond. The student will produce specific applications for varied educational settings, demonstrate a fair command of the most popular tools, and design original projects using the available technology. Prerequisites: PHY 2049, 2049L. (3 hr. lecture)

PHY3101**Modern Physics 3 credits**

This course will provide students with a deep understanding in areas of physics that lie beyond the scope of classical mechanics, thermo-dynamics and electromagnetism. Its content includes: the theory of relativity; wave properties of matter; an introduction to the quantum theory of atoms; the properties of molecules and solids; nuclear properties, interactions and applications; a brief description of elementary particles; and an

overview of modern cosmology. The course will emphasize descriptive models and problem-solving techniques. Prerequisites: PHY 2048, 2049; corequisite: PHY 3125L. (3 hr. lecture)

PHY3101L**Modern Physics Laboratory 1 credit**

This course is a laboratory course designed to enhance the student's practice and understanding of areas of physics that lie beyond the scope of classical mechanics, thermo-dynamics and electromagnetism. These areas are covered in PHY 3101. While the main purpose of the course is to promote scientific understanding, the student will also acquire and demonstrate skills in the observation, measurement, recording, analysis, and reporting of experimental data. Prerequisites PHY 2049, MAP 2302; corequisite: PHY 3125. (2 hr. lab)

PHY3802L**Intermediate Physics Laboratory 1 credit**

This is a laboratory course consisting of a series of experiments related to intermediate courses in classical mechanics, waves, thermodynamics, electromagnetism and modern physics. The student will learn skills in the design, performance and reporting of physics experiments as well as reinforcing concepts learned in the corresponding physics courses. Prerequisites: PHY 2048L, 2049L, PHY 3504. (2 hr. lab)

PHY4220**Classical Mechanics 3 credits**

This one-semester course will provide students with a deep understanding of some fundamental topics of classical mechanics, reinforcing the concepts learned in PHY 2048, and providing a sound foundation for their comprehension. Most of the topics of elementary mechanics will be studied in a rigorous manner, requiring a higher level of math. Content includes Newtonian particle mechanics, oscillations, 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, magneto-statics, electromagnetic induction, Maxwell's

equations, wave optics, and electromagnetic radiation. The course will emphasize classical models and problem-solving techniques. Prerequisites: PHY 2049, MAP 2302, PHZ 3113. (3 hr. lecture)

PHY4424**Geometrical & Physical Optics 3 credits**

This course is an intermediate study of topics in classical optics, as well as a conceptual introduction to modern optics. The student will learn the fundamental principles and applications of classical optics and optical instruments, and will gain an understanding of unfamiliar optical phenomena through inquiry activities. Prerequisites: PHY 2048, 2049, MAP 2302, PHY 3504. (3 hr. lecture)

PHZ3113**Mathematical Physics 3 credits**

This course will reinforce the background gained in the previous math courses. It will also supplement those topics with new theory and applications, while providing some powerful math tools to be used in the 3000-4000 level physics courses. Prerequisites: MAC 2311, 2312, MAP 2302, PHY 2049. (3 hr. lecture)

PSC1121**General Education Physical Science 3 credits**

A study of the major concepts and principles from each of the following areas: physics, chemistry, and astronomy. Prerequisite: MAT1033. (3 hr. lecture)

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)

PSC1191**Physical Science Lab Fundamentals 1 credit**

Students will learn to develop observation, measurement, analysis, and presentation skills using hands-on collaborative physics and chemistry activities. These skills will enhance future performance in Science, Technology, Engineering and Mathematics (STEM) courses and careers. Students will use current technology as well as critical thinking. (2 hr. lab)

PSC1515**Energy in the Natural Environment 3 credits**

Investigation of the physical environment using energy as a theme to demonstrate the impact of science and technology on the environment and on the lives of people. Special fee. (3 hr. lecture)

PSC1515L
Energy in the
Natural Environment
Laboratory **1 credit**

A laboratory course designed to complement PSC 1515. Laboratory exercises explore the ways in which energy moves through the atmosphere, hydrosphere, lithosphere and biosphere, the advantages and disadvantages of various energy sources, and the potential of conservation as an energy resource. Laboratory fee. (2 hr. lab)

Political Science

CPO2100
Comparative
European Government **3 credits**

This course discusses the structures and functioning of the systems of government of three European states: Britain, France, and the Federal Republic of Germany. An attempt is made to analyze some of the current problems facing parliamentary governments, and to assess their performance in resolving them. A prior course in History or Social Science is desirable. Offered first semester. Given in English. Offered through Overseas Study Program. (3 hr. lecture)

INR1949
Co-op Work
Experience 1: INR **3 credits**

This is a course designed to continue training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-op Department approval. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the 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 and peace in the international arena. (3 hr. lecture)

INR2440
International Law
and Organization **3 credits**

International law and problems in world politics; a review of man's attempt to control international politics through international law and organizations, including the League of Nations, the United Nations, NATO, and the European Union. A prior course in History or Social Science is desirable. Offered second semester. Given in English. Offered through Overseas Study Program. (3 hr. lecture)

INR2949
Co-op Work
Experience 2: INR **3 credits**

This is a course designed to continue training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-op Department approval and completion of 1949 Co-op work experience. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the 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, as well as other ways in which we differ as they pertain to shaping personal awareness, understanding, and skills that will allow them to interact more effectively with diverse populations, age, groups, and lifestyles and to think through and value human diversity. This course has an overriding principle based on the concept of human rights. (3 hr. lecture)

POS2041
American Federal
Government **3 credits**

The American Constitution and its development, the organization and functions of the national government, political parties and the electoral process, and the relationship of the individual to the federal government. (3 hr. lecture)

POS2112
State and Local
Government in America **3 credits**

The typical state and local government organization, together with political practices in America, with special emphasis on the governmental organization and the major contemporary political problems of the State of Florida and of Florida communities. (3 hr. lecture)

POS2141
Introduction to
Issues of Urban Politics **3 credits**

Presentation and exploration of a variety of topics, priorities, advocacy strategies, crisis channeling and constructive possibilities characteristic of urban politics will be offered as these are advanced by the identification, definition and strategic management of issues in highly populated jurisdictions in the U.S.A. Economics, ethnicity, education, health care, and other issues will be featured. (3 hr. lecture)

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)

POR2220
Intermediate Portuguese 1 **4 credits**

Students will understand, speak, read, write, and gain cultural awareness of Portuguese through a systematic review (using an integrated, multimedia approach) of reading, grammar, and writing skills with emphasis on oral and written communication. Prerequisite: POR 1121 or equivalent. (4 hr. lecture)

POR2221
Intermediate Portuguese 2 **4 credits**

Understanding, speaking, reading, writing and cross-cultural awareness, through a systematic review of reading and writing skills with emphasis on oral as well as written expression. Prerequisite: POR 2200. (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 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. This is an experientially-taught course, with regular use of student interaction in dyads, triads, and small group experience. (2-3 hr. lecture)

CLP2140**Abnormal Psychology 3 credits**

This course examines the major categories of mental disorders. Diagnostic criteria, treatment methods, cultural factors, public attitudes, community resources, ethical issues and legislation applicable to individuals with mental disorders are studied. The impact of mental disorders on individuals, families and society are discussed. (3 hr. lecture)

DEP2000**Human Growth and Development 3 credits**

The nature of human behavior as a dynamic developmental phenomenon. While the emphasis is psychological, an understanding of the physical aspects of development and their social implications is included. Observation and written analysis of principles of learning involved in human development are required. The course meets teacher certification requirements in the area of psychological foundations. (3 hr. lecture)

DEP2100**Child Growth and Development 3 credits**

This course in Child Growth and Development is designed especially for the student interested in the human life span from birth through the first eight years. The course is intended to acquaint the student with basic theoretical models of development and such specific topics as heredity teratogenic agents, learning, intelligence, socialization, personality, sex role identification, language acquisition and moral development. (3 hr. lecture)

DEP2481**Death Attitudes and Life Affirmation 3 credits**

An analysis of the psychology, philosophy, and social function of death and dying, especially in relation to the general negative view of death in American society. Encourages a reconstruction of the participant's approach to living through a confrontation of their fear of death and of those life-denying traits

and values which inhibit their growth. The course also investigates humane possibilities for funeral, bereavement, and counseling the terminally ill. (3 hr. lecture)

INP2390**Psychology of Work 3 credits**

Applies the understanding of effective human relations to work situations. Personal dynamics for success are also considered. Students will be taught how to influence behavior on the job as they apply their knowledge and interpersonal skills to specific experiences in the work place. (3 hr. lecture)

PCO2731**Human Relations 3 credits**

Emphasizes an awareness of the problems of a person's relationship to others, and the known laws and generalizations about the action patterns of individuals and groups. Effort is made to develop an awareness of the techniques of effective interpersonal relations. (3 hr. lecture)

PSB2442**The Psychology of Addiction 3 credits**

This course will examine psychological, medical, pharmacological, legal, economic and sociological aspects of addiction to and use of various chemicals. The course will take an in-depth look at narcotic sedatives, and stimulants including alcohol, cocaine, heroin, cannabis, caffeine and tobacco. (3 hr. lecture)

PSY1949**Co-op Work Experience 1: PSY 3 credits**

This is a course designed to continue training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and 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)

Public Administration

PAD2002**Introduction to Public Administration 3 credits**

Presentation and exploration of the distinct components, structure, philosophy and purposes of administration in the public (government) sector, emphasizing unique features compared to the private (business) and independent (voluntary) sectors within the contemporary United States. Concepts, competencies, ethics and professionalism in a diverse society implementing a variety of public policies through various government agencies at various levels will be studied. (3 hr. lecture)

Quantitative Methods in Business

QMB2100**Basic Business Statistics 3 credits**

The application of basic statistical methods to business problems. Emphasis is on learning to select the appropriate statistical method of solving a given business problem, applying the chosen method, and interpreting the solution. Prerequisite: Acceptable score on the Algebra Placement test or equivalent; corequisite: QMB 2100L. Gordon Rule Assigned (3 Hr Lecture).

QMB2100L**Basic Statistics Laboratory 1 credit**

Laboratory for QMB 2100. Selected examples designed to give interested students further practice in interpreting and solving business problems related to business. Corequisite: QMB 2100. Laboratory fee. Gordon Rule Assigned. (2 hr. lab)

Radiation Therapy Technology

RAT1001

Introduction to Radiation Oncology 2 credits

Introduction to the clinical setting in a radiation therapy department. The course includes radiation protection, mathematical concepts in radiation oncology, and medical terminology in the treatment of patients in a radiation oncology setting. Prerequisites: ENC 1101, MAC 1105, BSC 2085, 2085L; corequisites: RAT 1211, 1840. (2 hr. lecture)

RAT1021

Principles and Practice of Radiation Therapy 1 2 credits

A study of all major radiotherapy equipment such as linear accelerators and superficial ortho- and mega-voltage units. Auxiliary equipment such as simulators, immobilization devices, beam directors and modifiers will also be discussed. Patient positioning, treatment planning, patient flow, and quality assurance will be presented in detail. Corequisites: RAT 1021, 1614, 1814L, 2243. (2 hr. lecture)

RAT1211

Human Disease 1 credit

The relationship of the human body to neoplastic and other pathologic diseases. Topics will include cells, tissues, organs and systems. Skeletal, muscular, nervous, endocrine, circulatory, reticuloendothelial, digestive, urinary, respiratory, and reproductive systems will be discussed. Prerequisites: ENC 1101, MAC 1105, BSC 2085, BSC 2085L; corequisites: RAT 1001, 1840. (1 hr. lecture)

RAT1242

Clinical Oncology & Pathology 2 credits

Malignant conditions, etiology, and methods of treatment. Patient management, treatment planning, patient prognosis, treatment results, and the use and effect of combined therapies will be discussed. Contributing factors, growth and biologic behavior of neoplastic diseases as well as specific types of tumors and tumor sites will also be discussed. Corequisites: RAT 1619, 2022, 2241. (2 hr. lecture)

RAT1614

Radiation Therapy Physics 1 2 credits

A basic radiation physics course containing fundamental principles and concepts. The course includes radiation production, properties, and characteristics as well as structure of the atom and matter, electrostatics, magnetism, electrodynamics, and the electromagnetic spectrum. Corequisites: RAT 1001, 1021, 1211, 1804L. (2 hr. lecture)

RAT1619

Elements of Treatment Planning 2 credits

Determination of radiation doses in treatment planning using computerized methodology. Corequisites: RAT 2690, 2834L. (2 hr. lecture)

RAT1657

Radiation Protection/Quality Assurance 2 credits

The student will learn to present basic principles of radiation protection and safety in radiation therapy. Radiation health and safety requirements of federal and state regulatory agencies, accreditation agencies and health care organizations are included. Specific responsibilities of the radiation therapist are discussed, examined and evaluated. (2 hr. lecture)

RAT1801L

Introduction to Clinic 2 credits

Students will rotate through various diagnostic imaging areas of the hospital in order to observe the equipment, procedures, and images produced. Opportunities to apply the skills learned in HSC0003 as well as the competencies achieved in RTE1000 will be included. Prerequisite: RAT 1840. (6 hr. clinic)

RAT1804L

RAT Clinic 1 5 credits

Students will learn radiation therapy procedures in a local radiation therapy department. Students are closely supervised by certified radiation therapy technologists as they are introduced to record-keeping and treatment units. Prerequisite: RAT 1801L. (240 hr. clinic)

RAT1814L

Clinic 2 8 credits

Continued patient treatment assignments. The responsibilities of the students increase as more complex competencies in patient treatment are mastered under direct supervision. Prerequisite: RAT 1804L. (384 hr. clinic)

RAT1824L

Clinic 3 8 credits

Continuation of advanced patient treatment competencies under the supervision of an ARRT Certified Radiation Therapy Technologist. Prerequisite: RAT 1814L; corequisites: RAT 2243. (24 hr. clinic)

RAT1840

Clinical Applications of Anatomy 1 credit

Content and practice experiences shall be designed for sequential development, application, analysis, integration, synthesis and evaluation of concepts and theories in clinical anatomy for radiation therapy. Through structured sequential assignments, concepts of clinical anatomy from various modalities for radiation therapy will be discussed, examined and evaluated. Prerequisites: BSC 2085, 2085L. (1 hr. lecture)

RAT2022

Principles & Practice of Radiation Therapy 2 2 credits

Continued application of radiation therapy and its effectiveness in treatments. Advanced patient positioning, planning and flow, and quality assurance will be discussed.

Prerequisite: RAT 1021; corequisites: RAT 1657, 1824L, 2241, 2618. (2 hr. lecture)

RAT2241

Radiobiology 2 credits

Principles of cell response to radiation. Factors influencing the effects of radiation, tissue sensitivity, and environmental factors are discussed. Corequisites: RAT 1657, 1824L, 2022, 2618. (2 hr. lecture)

RAT2243

Clinical Oncology & Neoplasms 2 credits

A continuation of medical oncology and pathology 1. Corequisites: RAT 1021, 1614, 1814L. (2 hr. lecture)

RAT2618

Radiation Therapy Physics 2 2 credits

Specifics of ionizing radiation such as details of production, interactions, and types of radiation and their application to the patient treatment. Properties of production, photon interactions, beam characteristics, and particle irradiation will be discussed. Prerequisite: RAT 1614; corequisites: RAT 1657, 1824L, 2022, 2241. (2 hr. lecture)

RAT2690

Integration of Radiation Therapy Concepts 2 credits

This course integrates anatomy, clinical oncology and neoplasms, radiation physics, radiation biology, and radiation protection as they relate to the treatment planning process. Basic concepts used to develop the treatment plan for patients with particular needs will be discussed. Prerequisite: RAT 2022; corequisites: RAT 1619, 2690. (2 hr. lecture)

RAT2834L

Clinic 4 6 credits

This course includes clinical rotations through the radiation therapy department. Students will be provided the opportunity to apply theory learned from the previous semester in the various areas of the treatment process. Prerequisites: RAT 1824L; corequisites: RAT 1619, 2690. (18 hr. clinic)

Radiologic Technology

RTE1000

Orientation to the Imaging Sciences 2 credits

This course is an introduction to the overall field of Imaging Sciences, radiography in particular. Students will learn the basic principles of radiation protection as it applies to the various modalities in imaging and treatment, a history of the imaging sciences, ethical/legal issues, professional behavior, medical terminology, and math/physics. (2 hr. lecture)

**RTE1001****Orientation to Radiographic Clinic 1 credit**

This course is designed to introduce the student to the radiology department as well as the hospital environment. Students will be provided the opportunity to observe all facets of the department, as well as participate at a minimal level in the various areas by rotating through a hospital radiology department. (3 clinical hrs. per week)

RTE1418**Radiographic Technology 1 3 credits**

Introduction to radiographic imaging including the relation of technical factors and accessories. The chemistry of manual and automatic film processing is included. Prerequisites: RTE 1503, 1503L, 1804. (3 hr. lecture)

RTE1503**Radiographic Positioning 1 3 credits**

Basic routine positioning of the chest, abdomen, upper and lower extremities, digestive and urinary systems. Prerequisites: RTE 1000, 1418, 1503L, 1804. (3 hr. lecture)

RTE1503L**Radiographic Positioning****Laboratory 1****1 credit**

Laboratory for RTE 1503. Corequisite: RTE 1503. Laboratory fee. (2 hr. lab)

RTE1513**Radiographic Positioning 2 3 credits**

Positioning of the bony pelvis, shoulder girdle, bony thorax, spinal column, skull and facial bones. Prerequisites: RTE 1418, 1503, 1503L, 1804; corequisites: RTE 1513L, 1613, 1814. (3 hr. lecture)

RTE1513L**Radiographic Positioning****Laboratory 2****1 credit**

Laboratory for RTE 1513. Corequisite: RTE 1513. Laboratory fee. (2 hr. lab)

RTE1613**Radiologic Physics 2 credits**

Basic principles of physics involving x-radiation equipment, production and control. Prerequisite: RTE 1000. (2 hr. lecture)

RTE1804**Radiographic Clinic 1 5 credits**

The first in a series of six clinical courses. Under direct supervision of faculty and clinical staff, performance of basic diagnostic radiographic procedures is carried out. Corequisites: RTE 1418, 1503, 1503L. (15 hr. clinic)

RTE1814**Radiographic Clinic 2 5 credits**

The student will be evaluated on competency performances in routine fluoroscopic, and in urographic procedures. This is the second of six clinical education courses. Prerequisite: RTE 1804; corequisites: RTE 1513, 1513L, 1613. (15 hr. clinic)

RTE1824**Radiographic Clinic 3 5 credits**

The student continues to rotate, under supervision, through different units of a Radiology

Department. Development of a capability to assist in diagnostic procedures at a more complex level. Prerequisite: RTE 1814. (24 hr. clinic)

RTE2010**New Imaging Modalities in Radiology 1 credit**

This course will enable the students to compare and contrast the current imaging modalities with the emerging technologies available in Radiology departments. Included in this course will be pictorial archiving and communications systems (PACs), digital imaging, and fusion imaging. Prerequisites: RTE 1418, 1613, 2457; corequisite: RTE2854. (1 hr. lecture)

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 biologic 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. (3 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 assur-

ance 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

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. (2 hr. lecture; 4 hr. lab)

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. (2 hr. lecture; 4 hr. lab)

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. (2 hr. lecture; 4 hr. lab)

Reading Education

RED3009**Early and Emergent Literacy 3 credits**

This writing intensive course is designed to familiarize students with early literacy development and conditions promoting total literacy from birth through lower elementary grades. All aspects of literacy learning are explored: reading, writing, listening, and speaking. Students are familiarized with theory and current research based approaches fostering early literacy. Minimum 20 hours observation/teaching reading in educational setting(s) required. Meets the guidelines of Sunshine State Standards and the Educator accomplished practices and addresses the Council for Exceptional Children's Content Standards for All Beginning Special Education Teachers. (3 hr. lecture)

RED3013**Reading Foundations and Practices****3 credits**

This methods course emphasizes the development of reading instruction from birth to secondary levels. Students will learn theory and current research-based approaches. All aspects of the reading process are explored: phonemic awareness, phonics, vocabulary, fluency, and comprehension. Fifteen hours of field experience are required. Special fee. (3 hr. lecture)

RED3352**Reading in the Content Areas****3 credits**

This course is designed to enable preservice teachers of subject matter content to acquire knowledge, skills and techniques necessary to guide secondary level students to be successful learners. Students will also learn and evaluate the methodology currently available for combining reading instruction with subject matter instruction. Special attention will be given to determining the relationship between the methodology and research-based principles of learning and effective teaching in the area of reading. (3 hr. lecture)

RED3393**Differentiated Instruction in Content Reading****3 credits**

This methods course focuses on utilizing best practices in the instruction of efferent reading with an emphasis on differentiated

instruction. Students will learn to meet the needs of diverse learners, organize the classroom, scaffold for effective instruction, and determine criteria for choosing instructional materials. Fifteen hours of field experience are required. Special fee. (3 hr. lecture)

RED4348**Literacy Development K-12 3 credits**

This course provides an understanding of reading instruction through the elementary, middle school, and secondary school levels. It presents learning to read as a continuous process that impacts all academic success. Reading theories, methods, and practices as they relate to comprehension and other aspects of the reading process are introduced. An emphasis is placed on approaches that help students with delayed reading acquisition skills. Prerequisite: RED 3009. (3 hr. lecture)

RED4519**Diagnosis and Instructional Intervention in Reading****3 credits**

This methods course emphasizes the use of assessments to identify reading strengths and weaknesses. Topics include assessment of comprehension, word recognition, phonics, and cognitive strategies. Students will learn diagnosis of reading problems, administration of assessments, evaluation of results, and planning instructional interventions. Fifteen hours of field experience are required. (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**

Is a state required course that all newly licensed salespersons must complete with-

in 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 wrap-around mortgages will be discussed. (3 hr. lecture)

REE2270**Mortgage Banking and Brokerage****3 credits**

Development of an understanding of the finance industry as it relates to real estate. Detailed information concerning legal aspects of mortgages, brokerage regulation, ethics and all major sources of funds for real estate financing will be covered. Prerequisite: REE 2200 (3 hr. lecture)

Religion

REL1210**Religion of the Old Testament****3 credits**

The historical sources and material in the Old Testament, with emphasis on its literary and cultural importance. (3 hr. lecture)

REL1240**Religion of the New Testament****3 credits**

The historical sources and material in the New Testament, with emphasis on its literary and cultural importance. (3 hr. lecture)

REL2121**Survey of Religion****in the U.S.****3 credits**

A survey of non-native American religions in the United States from the 17th century to the present and their impact on American culture. The course will examine four general areas: the colonial era; the religions of the frontier, the South and African-American responses to before and after the Civil War; the 19th century continuing social, political and theological tension. (3 hr. lecture)

REL2300**Survey of****World Religions****3 credits**

A survey of the origins, beliefs and contemporary practices of the world's religions: Hinduism, Islam, Taoism, Zen Buddhism, Judaism, Christianity and Confucianism. Attention is given to the interactions between specific religions and the cultures in which they are practiced. (3 hr. lecture)

REL2600**Jewish History and Culture****3 credits**

A survey of the development of Jewish history and culture from Biblical times to the present. (3 hr. lecture)

Respiratory Therapy Technician

RET1024**Introduction to****Respiratory Care****2 credits**

This is an introductory course to the Respiratory Care discipline. Students will learn the history of the profession, terminology, hospital and patient safety, infection control, patient assessment, accessing and utilizing the patient's medical record, critical thinking, Respiratory Care protocols, and patient education. Prerequisite: ENC 1101; corequisite: RET 1024L, 1484. A.S. degree credit only. (2 hr. lecture)

RET1024L**Introduction to****Respiratory Care****Laboratory****1 credit**

Laboratory for RET 1024. Corequisite: RET 1024. Laboratory fee. (2 hr. lab)

RET2264**Advanced Modalities and Monitoring****2 credits**

This is an advanced course relating to critical care. Students will learn advanced techniques in invasive and non-invasive monitoring, electrocardiographic monitoring and interpretation, alternatives to conventional ventilation and advanced cardiovascular support systems. Prerequisite: RET 2284; corequisite: RET 2714. A.S. degree credit only. (2 hr. lecture)

RET2350**Respiratory Care****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. 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 Care****Pathophysiology 2****3 credits**

This is a foundation course on cardiopulmonary disease. The student will learn the pathogenesis, diagnosis, treatment and rehabilitation of the diseases included in the course. Prerequisite: RET 1484; Prerequisite: RET 1484. A.S. degree credit only. (2 hr. lecture)

RET2601**Respiratory Care****Seminar****2-3 variable credits**

This is an advanced course focuses on clinical and nonclinical issues. Students will learn concepts including, but not limited to, clinical research, legal and ethical concerns, home care, extended care, rehabilitation and management. ACLS and PALS certification obtained. A.S. degree credit only. (2-3 hr. lecture)

RET2714**Perinatal and Pediatric****Respiratory Care****2 credits**

This course is designed to provide training in perinatal and pediatric respiratory care. Students will learn assessment and therapeutic techniques related to critical care. Corequisites: RET 2264, 2714L. A.S. degree credit only. (2 hr. lecture)

RET2832**Respiratory Care Clinic 1****2 credits**

This is an introductory clinical practice course. The student will learn psychomotor skills related to basic respiratory care and patient care procedures including patient charting, vital signs, infection control and non-pressurized oxygen adjuncts. Prerequisites: RET 2274, 2274L. A.S. degree credit only. (6 hr. clinical)

RET2833**Respiratory Care Clinic 2****5 credits**

In conjunction with RET 2274, 2274L and RET 1024, 1024L, RET 2832 is designed to allow the student to develop psychomotor skills related to basic respiratory care and

patient care procedures (patient charting, vital signs, infection control and non-pressurized oxygen adjuncts). During the rotation, the student is provided with the opportunity to apply and discuss the theory and techniques as presented in corequisite courses. Corequisites: RET 1024, 1024L 1484, 1484L, 2274, 2274L, 2350. (15 hr. clinic)

RET2834**Respiratory Care Clinic 3****8 credits**

This course is a continuation of RET 2833. Training will be provided on the clinical application of procedures and techniques relating to respiratory critical care. Prerequisites: RET 2284, 2284L; corequisites: RET 2714. A.S. degree only. (24 hr. clinic)

Respiratory Therapy Technology

RET1484**Respiratory Care****Pathophysiology 1****2 credits**

This is an introductory course in the study of pulmonary and cardiovascular anatomy, physiology and pathology. Students will learn terminology, disease classification, diagnostic techniques and related physiological concepts. Prerequisite: ENC 1101. corequisite: RET 1024. A.S. degree credit only. (2 hr. lecture)

RET2274**Respiratory Care Theory 1****2 credits**

Theory of supplemental oxygen and humidity in respiratory pathology. Special emphasis is given to the medical, surgical, and pediatric patients and their cardiopulmonary physiology as it relates to therapeutic oxygen techniques. Corequisites: RET 1024, 1484, 2274L. (2 hr. lecture)

RET2274L**Respiratory Care Theory****Laboratory 1****1 credit**

Laboratory for RET 2274. Corequisite: RET 2274. Laboratory fee. (2 hr. lab)

RET2275**Respiratory Care Theory 2****2 credits**

Emphasis on pressure breathing modalities, chest physiotherapy, and incentive devices. Prerequisite: RET 2274; corequisite: RET 2275L. (2 hr. lecture)

RET2275L**Respiratory Care****Theory Laboratory 2****1 credit**

Laboratory for RET 2275. Corequisite: RET 2275. Laboratory fee. (2 hr. lab)

RET2284**Principles of****Mechanical Ventilation****2 credits**

A continuation of RET 2275. A concentrated course of study which focuses on the theoretical operation, application and procedures related to critical care and mechanical ventilation. A.S. degree credit only. Prerequisites: RET 2275, 2275L; corequisite: RET 2284L. (2 hr. lecture)

RET2284L**Principles of Mechanical**

Ventilation Laboratory 2 credits
Laboratory for RET 2284. This course will provide an in depth study of the operation of mechanical ventilation devices and associated monitors. Patient safety, troubleshooting and application are stressed. Corequisite: RET 2284. Laboratory fee. A.S. degree credit only. (4 hr. lab)

RET2714L**Perinatal & Pediatric
Respiratory Care**

Laboratory 1 credit
This is an introductory laboratory course that will explore assessment and Respiratory Care therapeutics of the perinatal and pediatric patient populations. The student will learn to apply physical assessment techniques, oxygen aerosol and humidity therapies, therapeutic procedures, airway management, resuscitation and management of mechanical ventilation. Corequisite: RET 2714. A.S. degree credit only. (2 hr. lab)

RET2835**Respiratory Care Clinic 4 8 credits**

This course is designed to provide the student with the clinical application of adult, pediatric, and neonatal intensive respiratory care. Procedures and techniques presented in RET 2714, 2264 as it relates to their clinical application will be emphasized. A.S. degree credit only. Prerequisite: RET 2834; corequisite: RET 2601. (24 hr. clinic)

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, economic and global dimensions of societies. Its main objective is to promote knowledge of contemporary and historical forces that shape our social environment and engage students in a life-long process of inquiry and decision-making. (3 hr. lecture)

ISS1161**The Individual in Society 3 credits**

This is an interdisciplinary course that emphasizes understanding of oneself as a unique individual who, as part of global community, is responsible for decisions affecting his/her psychological, social, environmental, and physical well-being. Main themes include personality and self, society and culture, development and the life cycle, and the maintenance of physical and psychological health. (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; it is designed for those students who are engaged in or have completed ISS 1120. (1-3 hr. seminar)

Social Work

SOW2054**Social Service****Field Experience 1 1-3 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 scientific search for variables involved and exploring alternative solutions. (3 hr. lecture)

SYG2110**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)

SYG2230**Multi-Ethnic America 3 credits**

An introduction to the theory and problems of minority groups in American society. The focus is on structural inequality, institutional discrimination, and the changing patterns of prejudice and discrimination. (3 hr. lecture)

SYG2430**Marriage and the Family 3 credits**

The family as a social institution—its origin and development, its forms and functions, its interrelation with other social institutions, and its role in contemporary civilization. Areas of study include factors contributing to or acting against successful, stable marriage. (3 hr. lecture)

Sonography

SON1000L**Introduction to
Sonography 1 1 credit**

An introduction to the physical principles of diagnostic ultrasound. Bases of imaging with ultra sound are discussed as well as clinical units in the various areas of specialization. In conjunction with the lectures, supervised laboratory classes are conducted to familiarize students with operations of the equipment in each of the clinical areas. Corequisites: SON 1111C, 1121C. (2 hr. lab)

SON1001L**Introduction to Sonography 2****1 credit**

This second introductory course will cover the past present and future of sonography. After the historical landmarks are identified, the focus will be on the current diversity of applications of diagnostic medical sonography. Students will also discover future trends and developments on the technology horizon of the profession. Prerequisite: SON 1000L. (2 hr. lab)

SON1005L**Basic Sonography****2 credits**

This course is designed to cover the essential of the profession of Diagnostic Medical Sonography. Topics include: professionalism, medical ethics, hospital administration, sonographic terminology, quality assurance, photographic principles, related radiological specialties and scanning techniques. Laboratory experience will include equipment use and quality assurance techniques. Prerequisite: SON 1000L. Laboratory fee. (4 hr. lab)

SON1006L**Professional Aspects of Sonography****1 credit**

An introduction to the professional aspects of sonography. Topics include: medical ethics and law, hospital administration, quality assurance/quality control and management. Laboratory experience includes actual phantom scanning conducting equipment 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 & 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. Prerequisite: SON 1141C. (2 hr. lab)

SON1804**Clinic 1****2 credits**

This is the first in a series of six (6) clinics in which the student is assigned to a medical facility. The student is afforded a hands-on experience in sonography under the supervision of a clinical instructor, sonographer or physician. Corequisite: SON 1000L. (16 hr. clinic)

SON1814**Clinic 2****2 credits**

This is the second in a series of six (6) clinics in which the student is assigned to a medical facility. The student is afforded hands-on experience in sonography under the supervision of a clinical instructor, sonographer or physician. Prerequisite: SON 1804. (8 hr. clinic)

SON1824**Clinic 3****3 credits**

This is the third in a series of six (6) clinics in which the student is assigned to a medical facility. The student is afforded hands-on experience in sonography under the supervision of a clinical instructor, sonographer or physician. Prerequisite: SON 1814. (24 hr. clinic)

SON2061L**Seminar in Sonography****1 credit**

Students will participate in the various type 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 catheterization, and nuclear medicine cardiology. Prerequisite: SON 2400C; corequisite: SON 2401C. (2 hr. lab)

SON2161C**Neurosonography****2 credits**

A comprehensive course designed to examine sonographic imaging of the neonatal and infant brain, with an introduction to ultraoperative brain and spinal cord imaging. Emphasis is placed on normal brain anatomy, congenital and malformations and acquired pathologic conditions. Prerequisites: SON 1113L, 1141C. Special fee. (1 hr. lecture; 2 hr. lab)

SON2171C**Vascular Sonography 2 credits**

This course is designed to cover aspects of Clinical Vascular Technology. Topics include the pathophysiological levels of disease, clinical presentation and data, hemodynamic of blood flow, anatomy and physiology of the vascular system and anatomical appearance. Prerequisite: SON 2161C. (1 hr. lecture; 2 hr. lab)

SON2400C**Echocardiography 1 2 credits**

An in-depth course designed to present all aspects of clinical cardiovascular ultrasound studies. Topics discussed are: pathophysiological basis of diseases, clinical presentation and clinical data, Doppler and echocardiographic findings in disease, hemodynamic relationships, scanning pitfalls and differential diagnosis. Prerequisite: SON 1000L. (1 hr. lecture; 2 hr. lab)

SON2401C**Echocardiography 2 2 credits**

An in-depth course designed to cover all aspects of clinical cardiovascular ultrasound studies. Topics discussed are pathophysiological basis of diseases, clinical presentation and clinical data, Doppler and echocardiographic findings in disease, hemodynamic relationships, scanning pitfalls and differential diagnosis. Prerequisite: SON 2400C. (1 hr. lecture; 2 hr. lab)

SON2614C**Acoustical Physics and Instrumentation 1 2 credits**

The course will present a review of fundamental physics and in-depth study of the physical principles of diagnostic ultrasound. Topics discussed include: properties of sound waves, interaction of sound waves with matter, generation of ultrasound and principles of Doppler ultrasound. Prerequisite: SON 1005L. (1 hr. lecture; 2 hr. lab)

SON2618C**Acoustical Physics and Instrumentation 2 2 credits**

Physical principles of Ultrasound Instrumentation -A course designed to familiarize the student with the physical principles and modes of operation of diagnostic ultrasound equipment. Subject matter includes: transducers, display systems, component parts of a scanning system, real-time scanners, Doppler equipment, quality control, routine maintenance and recent developments. Prerequisites: SON 2614C, CGS 1060. (1 hr. lecture; 2 hr. lab)

SON2619C**Doppler Principles and Instrumentation 2 credits**

This course presents a review of fundamental physics and an in-depth study of Doppler Physical Principles of Diagnostic Ultrasound. Topics also include Doppler Instrumentation, equipment, display systems, quality control, and hemodynamics of blood flow. Prerequisite: SON 2618C. Laboratory fee. (1 hr. lecture; 2 hr. lab)

SON2834**Clinic 4 2 credits**

This is the fourth in a series of six (6) clinics in which the student is assigned to a medical facility. The student is afforded hands-on experience in sonography under the supervision of a clinical instructor, sonographer or physician. Prerequisite: SON 1824. (16 hr. clinic)

SON2844**Clinic 5 3 credits**

This is the fifth in a series of six (6) clinics in which the student is assigned to a medical facility. The student is afforded hands-on experience in sonography under the supervision of a clinical instructor, sonographer or physician. Prerequisite: SON 2834. (24 hr. clinic)

SON2854**Clinic 6 3 credits**

This is the last in a series of six (6) clinics in which the student is assigned to a medical facility. The student is afforded hands-on experience in sonography under the supervision of a clinical instructor, sonographer or physician. Prerequisite: SON 2844. (24 hr. clinic)

SON2910L**Directed Research 1 credit**

This course is designed to afford students an opportunity to develop their research skills, broaden their educational horizons, and further investigate a particular area of interest in the field of ultrasound. Students will select a topic for research, investigate and gather information, and compile the results for presentation, competition and publication. (2 hr. lab)

SON2930L**Seminar in Sonography 1 credit**

Students will participate in the various types of continuing education. This may include: society meetings, seminars, conferences and in-services. (2 hr. lab)

SON2931L**Film Critique 1 1 credit**

An extensive laboratory to prepare the student to recognize quality images, anatomy, patient positioning, pathology, and scanning technique errors as well as artifacts. For each class, the student will present a case from their current rotation of the teaching file. The class includes all technical and clinical information as well as interpretation by the supervising physician. Prerequisite: SON 1000L. Laboratory fee. (2 hr. lab)

SON2932L**Film Critique 2 1 credit**

An extensive laboratory to prepare the student to recognize quality images, anatomy, patient positioning, pathology, and scanning technique errors as well as artifacts. For each class, the student will present a case from their current rotation of the teaching file.

The class includes all technical and clinical information as well as interpretation by the supervising physician. Prerequisite: SON 2931L. Laboratory fee. (2 hr. lab)

SON2933L**Film Critique 3 1 credit**

An extensive laboratory to prepare the student to recognize quality images, anatomy, patient positioning, pathology, and scanning technique errors as well as artifacts. For each class, the student will present a case from their current rotation of the teaching file. The class includes all technical and clinical information as well as interpretation by the supervising physician. Prerequisite: SON 2932L; corequisite: SON 2401C. (2 hr. lab)

SON2934L**Film Critique 4 1 credit**

An extensive laboratory aimed at teaching the student to recognize quality images, anatomy, patient positioning, pathology, and scanning technique errors as well as artifacts. For each class, the student will present a case from their current rotation of the teaching file. The presentation will include all technical and clinical information as well as the final interpretation by the supervising physician. Prerequisite: SON 2933L. Laboratory fee. (2 hr. lab)

SON2935L**Film Critique 5 1 credit**

An extensive laboratory aimed at teaching the student to recognize quality images, anatomy, patient positioning, pathology, and scanning technique errors as well as artifacts. For each class, the student will present a case from their current rotation of the teaching file. The presentation will include all technical and clinical information as well as the final interpretation by the supervising physician. Prerequisite: SON 2934L. Laboratory fee. (2 hr. lab)

SON2950L**Journal Review 1 credit**

Students select scientific articles from sonography journals for review and presentation in class. (2 hr. lab)

Spanish Language 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)

SPN2220**Intermediate Spanish 1****4 credits**

Students will understand, speak, read, write, and gain cultural awareness of Portuguese through a systematic review (using an integrated, multimedia approach) of reading, grammar, and writing skills with emphasis on oral and written communications. Prerequisite: POR 1121 or equivalent. (4 hr. lecture)

SPN2221**Intermediate Spanish 2****4 credits**

Understanding, speaking, reading, writing and cross-cultural awareness, through a systematic review of reading and writing skills with emphasis on oral as well as written expression. (4 hr. lecture)

SPN2240**Intermediate Spanish 1****Conversation & Composition****3 credits**

Promotes facility in understanding, speaking and writing the language. Emphasis on everyday conversation. Prerequisite: SPN 2201 or equivalent. (3 hr. lecture)

SPN2241**Intermediate Spanish 2****Conversation & Composition****3 credits**

Oral practice with idiomatic expressions; oral reports on collateral readings; class discussions. Prerequisite: SPN 2240 or equivalent. (3 hr. lecture)

SPN2340**Spanish for Native Speakers 1****3 credits**

Writing, spelling and punctuation, sentence structure and reading selections for vocabulary expansion as they are relevant to the training of individual students. Prerequisite: oral ability to communicate in Spanish or permission of department chairperson. (3 hr. lecture)

SPN2341**Spanish for****Native Speakers 2****3 credits**

A continuation of SPN 2340. Prerequisite: SPN 2340 or equivalent. (3 hr. lecture)

SPT2842**Contrastive Analysis****Spanish/English****3 credits**

Comparison/contrastive study of the phonology, morphology and syntax of Spanish and English. Recommended for students of translation and interpretation. Prerequisite: SPN 1121 or equivalent. (3 hr. lecture)

SPW2010**Selected Readings in****Spanish Literature****3 credits**

A study of outstanding works, authors, genres, or major literary currents in Spain. (3 hr. lecture)

SPW2020**Selected Readings in****Latin American Literature****3 credits**

A study of outstanding works, authors, genres, or major literary currents in Latin America. (3 hr. lecture)

Speech Communication

SPC1017**Fundamentals of****Speech Communication****3 credits**

SPC 1017 provides students with the oral communications skills necessary for success in personal, professional and educational settings. Through the study and experiential practice of interpersonal communication, presentational speaking and group dynamics of communication and be able to use them effectively. Gordon Rule assigned. (3 hr. lecture)

SPC2050**Voice and Diction****3 credits**

Effective voice production and articulation, acceptable pronunciation, intonation, rhythm, and phrasing, a consideration of elementary vocal anatomy and the fundamentals of the science of sound. Specific speech problems will be handled on an individual basis. (3 hr. lecture)

SPC2511**Argumentation and Debate****3 credits**

The principles of argumentation, including analysis, evidence, inference and refutation, and their application to issues of current public interest. The course provides opportunities for debating practice. Prerequisite: SPC 2608 or equivalent. (3 hr. lecture)

SPC2594**Forensic Laboratory****1-3 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)

SPC2601**Advanced Public Speaking****3 credits**

For students who have had a basic course in speech or previous experience in public speaking. The course provides participation in such areas as contest, community and on-campus speaking, and speech criticism. Students receive instruction in audience analysis and rhetorical principles and strategies. Prerequisite: SPC 2608. (3 hr. lecture)

SPC2608**Introduction to****Public Speaking****3 credits**

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)

SPC2940**Peer Teaching in Speech****Communication****3 credits**

Provides the opportunity for outstanding speech students to advance their skills by functioning as student teachers in speech courses which they have completed successfully. Prerequisite: Permission of the department. (3 hr. lecture)

Statistics

STA2023**Statistical Methods****3 credits**

This course will introduce students to statistical methods. Students will learn topics to include collecting, grouping and presenting; measures of central tendency and dispersion; probability; testing hypotheses; confidence intervals; and correlation. Prerequisite: MAT 1033. Special fee. Gordon Rule Assigned. (3 hr. lecture).

STA3164**Statistical Methods 2** **3 credits**

Topics include tests of variance, analysis of variance, analysis of covariance, regression, correlation, and non-parametric statistics. Prerequisites: MAC 2312 or STA 2023 (3 hr. lecture)

Student Life Skills**SLS1125****Student Support Seminar** **3 credits**

This course provides a foundation for gaining knowledge, skills and attitudes necessary for college success. Students will learn specific social, cultural, psychological, and academic considerations that are known to impact student achievement. Students will also assess their competence in each of these areas, and learn strategies that will improve their overall student effectiveness. (3 hr. lecture)

SLS1130**College Survival Seminar** **1 credit**

An introduction to the campus, college policies, student services and self-discovery for entering freshmen. (1 hr. lecture)

SLS1401**Psychology of****Career Adjustment** **1-6 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 is concerned with "who you are," "where are you going," "how to get there," and "what's out there that fits you." Special fee. (1-6 hr. lecture)

SLS1502**College Study Skills** **1-3 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 is an introductory self-discovery course designed to help students make the transition to college. Students will learn the knowledge and skills necessary for success, including knowledge of academic policies and procedures, effective study strategies, and making sound academic and career choices. (1 hr. lecture)

SLS1510**Preparing for Student Success****3 credits**

This course provides an orientation to college life and helps develop academic, career, and personal goals. Students will learn college success strategies, goal-setting, learning style assessments, as well as general and discipline-

specific study skills in the context of various theoretical, practical, and experiential perspectives. (3 hr. lecture)

Surveying**SUR1001C****Construction Survey** **3 credits**

Practice of surveying as related to the building and construction industry. Includes a combination of classroom instruction and practical field problems with the tape, level and transit. Special fee. (2 hr. lecture; 2 hr. lab)

SUR1101C**Surveying 1** **4 credits**

The theories and practices in surveying and the use of the principal types of surveying instruments in horizontal and vertical planes. Problems include the measurement of distance; the use of compass, sextant, transit traverse, stadia, and basic mapping. Field and laboratory practice are required. Prerequisite: EGS 1111C, ETD 1200. Laboratory fee. (2 hr. lecture; 4 hr. lab)

SUR1202C**Surveying 2** **4 credits**

Advanced study in route, land, and mapping surveying to include triangulation, astronomic observations, topographic and photogrammetric mapping. Field demonstrations and surveys performed with many modern types of survey instruments. Prerequisite: SUR 1101C. Laboratory fee. (2 hr. lecture; 4 hr. lab)

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. Include basic theory, project planning ground control, principles of plotting, and preparation of mosaics. Prerequisite: Permission of department chairperson. (2 hr. lecture; 2 hr. lab)

SUR2400C**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)

SUR2404C**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**TSL3240****Applied Linguistics** **3 credits**

This course provides an introduction to the analysis and classroom application of Linguistic theories in the field of second language acquisition for LEP (Limited English Proficient) students. Required for Florida Add-On ESOL Endorsement. (3 hr. lecture)

TSL3331**ESOL: Language****Principles and Acquisition** **3 credits**

This course provides an introduction to the analysis and classroom application of Linguistic theories for first and second language acquisition and literacy development as well as the study of language and its structure. Students will examine and apply this knowledge to enhance instruction for culturally and linguistically diverse learners. Prerequisite EDG 3321. (3 hr. lecture)

TSL3520**ESOL II: Communication and Culture****3 credits**

This course provides an overview of topics related to the field of cross cultural studies and implications for instruction. The students will learn to plan and implement curriculum, instruction, and assessment activities to meet the needs of culturally and linguistically diverse learners. Fifteen hours of field experience required. (3 hr. lecture)

TSL3520C**Cultural****Dimensions of ESOL** **3 credits**

This course provides an overview of topics related to cross-cultural communication by introducing students to the cultures of different U.S. language groups with a focus on language groups found in Florida. Students develop an awareness and understanding of the complexities surrounding language, culture, and learning in order to meet the needs of linguistically and culturally diverse learners. Required for Florida Add-On-ESOL Endorsement. (3 hr. lecture)

TSL4140C**TESOL Curriculum and Materials****3 credits**

This course provides knowledge and application of TESOL theories, principles, and current research in the analysis, planning, design and evaluation of curriculum and materials appropriate for LEP (Limited English Proficient) students. Required for Florida Add-on ESOL Endorsement. (3 hr. lecture)

TSL4324C

ESOL Strategies for Content Area Teachers 3 credits
This course provides students taking education courses in content areas with strategies for analyzing, applying and adapting ESOL methods, curriculum, and assessment to enhance instruction for linguistically and culturally diverse students. Fulfills META requirements for content-area teachers with LEP (Limited-English Proficient) students - except primary language arts and ESE instructors. Minimum 20 hours of structured field experience required. (3 hr. lecture)

TSL4340C

TESOL Methods 3 credits
This course provides knowledge and application of TESOL theories, principles, and current research in the understanding and use of instructional techniques and methodologies appropriate for teaching LEP (Limited English Proficient) students. Minimum 20 hours of structured field experience required. Required for Florida Add-On ESOL Endorsement. (3 hr. lecture)

TSL4347

ESOL III: Methods of Teaching ESOL Students 3 credits
This course focuses on the application of TESOL instructional methods and strategies as well as the analysis, planning, design, and evaluating of curriculum and materials. Students will learn to select, develop, and adapt assessment instruments. Standardized ESOL assessment instruments will be examined. Fifteen hours of field experience are required. (3 hr. lecture)

TSL4441C

ESOL Testing and Evaluation 3 credits
This course provides knowledge and application of TESOL theories, principles, and current research in the selection, development, and adaptation of assessment instruments/evaluation materials appropriate for LEP (Limited English Proficient) students, including study of standardized ESOL instruments. Minimum 20 structured hours of field experience required. Required for Florida Add-On Endorsement ESOL Endorsement. (3 hr. lecture)

Theater Arts

THE1925

Studio Theatre Production 3 credits
Theoretical and practical experience with all aspects of studio theatre production including design, directing, lighting, technical and casting. The course will include faculty supervised public performances. May be repeated for credit. Prerequisite: Permission of department chairperson. (3 hr. lecture)

THE2000

Theatre Appreciation 3 credits
The development of drama from its beginning to contemporary theatre. Included are the analyses and study of major plays exemplary of outstanding periods of theatre history. Required of drama and drama education majors. Gordon Rule Assigned. (3 hr. lecture)

THE2051

Children's Theatre Production 3 credits
The theory of children's theatre, its development with the American theatrical scene, its function within the American community and applications of the theories in actual productions before audiences. (3 hr. lecture)

THE2052

Children's Theatre Workshop 3 credits
Application of the theories of children's theatre and utilization of the associated arts and skills of directing, stage design, lighting, costume design and theatre management in actual production of children's plays. Prerequisite: THE 2051 or TPA 1200, 1220 or equivalent. (3 hr. lecture)

THE2083

Theatre Problems 1-3 variable credits
This is an advanced course for theatre majors who have already earned credit in a required subject or who have demonstrated that they are capable of advanced, highly specialized work in a particular area of requirements and objectives. Possible areas of study include advanced scene work; intensive training in particular acting methods; playwriting; and directing. Students are assigned to a teacher, who will design, supervise, and evaluate their projects. May be repeated for credit. (1-3 hr. lecture)

TPA1200

Stagecraft 3 credits
A basic study of technical theatre practices with emphasis on scenery construction, rigging and prop construction. This course may be taken concurrently with TPP 1110. (2 hr. lecture; 2 hr. lab)

TPA1202

Introduction to Entertainment Technology 3 credits
An historical overview of the scope, current trends, methods and vocabulary connected with the variety of venues used for live entertainment (arenas, stadiums, discos, theater-auditorium, convention centers, casinos, recorded entertainment at film and video sound stages and music studios); the producing organizations of entertainment and their different styles of production management (sports, music film, video, dance, theater, theme parks); and the business aspects of equipment vendors and leasing companies.

An overview of theatrical unions, engineering and professional groups and their influence on standard practices will also be addressed. (3 hr. lecture)

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 conference and convention, and A/V for industrial shows, conventions, concerts and special events. Also covered is media using recorded sound (A/V) and media accompanying live presenters (V/A) including 8, 16, 35 and 70 mm. movie, single and multi-media. Students will practice this technology in labs and in performance environment, under performance conditions. Prerequisite: Permission of department. (2 hr. lecture; 4 hr. lab)

TPA1220

Lighting 3 credits
Technical theatre practices with emphasis on lighting, sound effects, and design concepts. (2 hr. lecture; 2 hr. lab)

TPA1225

Automation & Computers 3 credits
This course presents the principles and practices of automated robotics lighting (intelligent lighting), automated machinery, rigging, wagons, turntables, lifts, event sequencing between pyro, multi-media, sound and stage lights, automated show control of up to ninety-nine elements of production and computerize control of light and sound. Prerequisite: Permission of department. (2 hr. lecture; 2 hr. lab)

TPA1230

Theatre Costuming 3 credits
An introduction to three basic areas of concentration in costuming history of dress, design concepts, and building techniques. (2 hr. lecture; 2 hr. lab)

TPA1248

Makeup for the Stage 3 credits
An introduction to the art and techniques of makeup as used by the actor, theatrical designer, and technician. Special emphasis is given to straight makeup, age makeup, hair, character extension, and stylization. (3 hr. lecture)

TPA1253**Entertainment****Technology: Technician 1 3 credits**

This course presents the principles and practice of stage rigging, stage carpentry, road crew and gripping. Students will practice the use of hardware, knots, hemp, counter-weight and motorized flying system for scenery, curtains and ground rigging, temporary and permanent stages, sound stages or on location, expositions and/or special outdoor events. Also covered are the principles and practices of the installation and operation of wagons, winches, chain hoists and trusses, lighting equipment, sound for on-stage or studio performance, gripping for motion pictures or video production. Occupational health and safety issues are discussed and practiced. (2 hr. lecture; 2 hr. lab)

TPA1254**Entertainment****Technology: Technician 2 3 credits**

This course is an advanced course in entertainment technology and continuation of the principles and practices covered in Entertainment Technology Technician 1. (2 hr. lecture; 2 hr. lab)

TPA1255**Concert & Stage Lighting****4 credits**

This course presents the principles and practices of installation and operation of lighting technology for a variety of entertainment venues: theater, dance, opera, rock and roll concert tours, philharmonic orchestras, music festivals, industrial shows, theme parks. Special attention will be paid to venues for performances outdoors, indoors and on sound stages. Also covered are the principles and practices involved with the installation and operation of film studio, location gaffing and equipment technology. AC and DC electrical current will be studied as it applies to lighting technology with special emphasis on power supplies, cabling 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 & Stage Sound****4 credits**

This course presents the principles and practices of the installation and strike of sound technology for a variety of entertainment venues: theater, dance and opera, rock and roll concert tours, orchestras, choirs and music festivals, theme parks, themed entertainment and industrial shows, special events, casino and cruise line shows. Special attention is paid to venues for performances outdoors, indoors and on sound stages. Also covered are the principles and practices associated with the installation and operation of film studio, location sound and sound studio set-up technology. Emphasis is placed on equipment and its specific use in the field together with practice in cabling, patching, system layout rigging and basic maintenance of generic equipment. Occupational health

safety, fire safety issues and CPR are discussed and practiced. Prerequisite: Permission of department. (2 hr. lecture; 4 hr. lab)

TPA1274**Properties Practical's****Non-Electrified****Special Effects****3 credits**

This course provides the student: the principles and practice of unloading, installing, pre-setting operating, striking, storing, loading and packing properties, 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 for furniture, dressing and effects and executing cues for their movement and operation. Prerequisite: Permission of department. (2 hr. lecture; 2 hr. lab)

TPA1275**Special Effects-Electrified****Laser & Pyrotechnics****3 credits**

This course presents the principles and practice of operating scenic, mechanical, sound, and lighting special effects including laser light and pyro-technics. Also covered are the standard practices, rules, regulations, procedures, guidelines and precautions for the safe operation of currently available devices used in industry today and those invented or special events. Prerequisite: Permission of department. (2 hr. lecture; 2 hr. lab)

TPA1290**Studio Theatre****Technical & 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 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 & 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 & 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 reshew and post production set-ups and strikes. Perform maintenance duties including laundry, repair, dyeing, starching, spot cleaning, ironing, pressing, steaming, shoe repair and painting, gluing, hand and machine sewing, embroidery, millinery pattern making, tailoring/alterations, leather work, beading and other costume crafts. The principles of make-up for the stage, studio and screen and preparation and maintenance of wigs, falls, and other hair pieces including beards and mustaches is also practiced. Taking instructions from management, designers, and supervisors, executing clues, collaborating with others part of a crew has equal emphasis along with occupational health, safety, fire safety and CPR principles and practices. (3 hr. lecture)

TPA2276**Entertainment****Technology: Crafts 1****3 credits**

This course presents the principles and practices of woodworking, welding, smithing, casting, weaving, paperhanging, painting, ceramics, plaster sewing and plastics technology for the entertainment industry. State of the art tool technology, shop and field practice, health and safety standards will be emphasized. These crafts are entertainment industry oriented with a perspective that states that objects created are to be used for production. Prerequisite: Permission of department. (2 hr. lecture; 2 hr. lab)

TPA2277**Crafts 2****3 credits**

This course is a continuation of the study of the principles and practices covered in Crafts 1. Prerequisite: TPA 2276 or departmental permission. (2 hr. lecture; 2 hr. lab)

TPA2291**Mainstage Production-****Technical & Lighting****1 credit**

Practical application of theatrical skills in technical support, and lighting through participation in a major theatrical production. May be repeated for credit. Prerequisite: Permission of department chairperson. (2 hr. lab)

TPA2292**Production Lab****1-3 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)

TPA2600

Introduction to Stage Management 3 credits
Introduction to Stage Management is designed to familiarize the student with the role of the stage manager in the theatre. Concepts covered includes: blocking, note taking, cue calling and company relation skills. Prerequisites: TPA 1200, 1220. (3 hr. lecture)

TPA2940

Technical Theatre Occupational Practicum 1-6 variable credits
This course is designed to provide the student with the practical, firsthand experience at a professional venue. The student will be supervised jointly by Miami Dade Community 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 Ensemble 3 credits
The student will develop the skills of improvisation for use in role development and for performance. (3 hr. lecture)

TPP1123

Improvisation Ensemble 3 credits
The student will develop ensemble and individual improvisational technique for performance. May be repeated for credit. (1 hr. lecture; 4 hr. lab)

TPP1150

Scene Study 1 3 credits
This course teaches the aspiring young theatre professional how to analyze a play in terms of the author's personal statement, the historical and social context within which it was written, the particular style used by the author, and the many options open to director and actor for bringing the work to stage life. A substantial portion of class time will be devoted to oral reading and interpretation of text. (1-3 hr. lecture)

TPP1160

Voice & Movement 1 3 credits
An intense two-semester course designed to train the acting student in specific techniques of voice production, vocal range and control; to add flexibility and suppleness to body movement, so that the actor becomes free to concentrate on the task of building a character. Each participant is evaluated at the beginning in relation to voice and movement levels of professional acceptability and expected to demonstrate measurable growth in a personalized program. (3 hr. lecture)

TPP1161

Voice & 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 & 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 & Movement for the Theatre 2 3 credits
Intermediate techniques in American jazz, ballet, and interpretative dance, and in mime

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 approach to creating a three-dimensional character. (3 hr. lecture)

TPP2112

Acting 2 3 credits
Emphasis on building a characterization. The art of improvisation, with reference to its function in the preparation of a role, is included. Prerequisite: TPP 1110. (3 hr. lecture)

TPP2151

Advanced Scene Study 3 credits
In this course the theatre student learns to analyze plays with a heavy focus on particular characters and major scenes. Emphasis will be placed on works of prime importance in the history of the theatre, both past and present, so that the aspiring actor can begin to experience some of the problems involved in approaching a significant role. Each student is required to research the performance history of the roles and scenes studied as well as to uncover the subtexts and the inner line of character development. Attention will be given to both Stanislavsky and improvisation techniques as methods by which the actor comes closer to the full reality of a part. May be repeated for credit. (3 hr. lecture)

TPP2152

Scene Study 3 3 credits
This course is the culmination of a sequence. In it the advanced acting student learns how to analyze the longer one/act or shorter full-length play and to develop the through-line of one character as a preparation for an in-class performance. The student also learns how to work with the director and to relate acquired acting techniques to the stylistic requirements of a given script. (3 hr. lecture)

TPP2162**Voice & 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 & 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 which is designed to give actors practical experiences necessary to make informed choices in use of self vocal levels and character business. Prerequisite: TPP 2260 or permission of instructor. (2 hr. lecture; 2 hr. lab)

TPP2300**Introduction to Play Directing 3 credits**

Introduction to the basics of play directing, composition, picturization, business and movement. The course will offer the student a method of analysis and rehearsal scheduling. Prerequisite: TPP 1110 and TPA 1200. (3 hr. lecture)

TPP2303L**Mainstage Production-****Assistant Designer/Director 1 credit**

Practical experience in theatrical design and directing through participating in a major production. May be repeated for credit. Prerequisite: Permission of department chairperson. (2 hr. lab)

Travel Industry Management

HFT1454**Food and Beverage****Cost Controls****3 credits**

Covers the principles and procedures involved in an effective food and beverage control system, including standards determination, the operation budget, income and cost control, menu pricing, and computer applications. (3 hr. lecture)

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. 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. A.S. degree credit only. (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. A.S. degree credit only. (3 hr. lecture)

HFT1725**Airline & 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. A.S. degree only. (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 will be stressed. A.S. degree only. (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 only. (3 hr. lecture)

HFT1794**Psychology of****Leisure Travel****3 credits**

Principles and procedures in understanding travel behavior and motivation. Emphasizes an awareness to travelers' perceptions, personalities, attitudes and other psychological factors. A.S. degree only. (3hr. 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. A.S. degree only. (3 hr. lecture)

HFT1949**Co-op Work-study****Internships I****3 credits**

This is a course designed to continue training in student's fields of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-op department approval. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Cooperative Education Office to obtain registration approval. A.S. degree credit only. A.S. degree only. (3 hr. lecture)

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. A.S. degree only. (3 hr. lecture)

HFT2050**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)

HFT2400**Travel Accounting &****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. A.S. degree credit only. (3 hr. lecture)

HFT2702**Airline Tickets & Tariffs 4 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 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 reservation, 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 an industry standard computer reservations information system. Prerequisite: HFT 2728. A.S. degree credit only. (3 hr. lecture)

HFT2949**Co-op Work-study Internships 2 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 Cooperative Education Office to obtain registration approval. A.S. degree only. (3 hr. lecture)

Vision Care Technology/ Opticianry

OPT1110**Physical & Geometrical Optics 4 credits**

Behavior of light energy as it passes through air, plastic, glass and water with emphasis on how light is modified by prism and curved lens surfaces. These principles relate

to the effect these ophthalmic devices have in correcting the errors of human vision. Corequisites: OPT 1205, 1330. (4 hr. lecture)

OPT1150**Ophthalmic Lenses 2 credits**

Characteristic of unifocal and multifocal lens reference points for proper lens selection to meet visual needs of the patients. Emphasis is on accurate positioning of the optical centers and selected multi-focal addition design. ANSI and FDA standards; prescription ordering; verification procedures; absorptive lenses; and invisible and progressive multifocals are presented. Prerequisites: OPT 1110, 1205; corequisites: OPT 1331, 1331L. (2 hr. lecture)

OPT1205**Ocular Anatomy, Physiology & Pathophysiology 3 credits**

The structure and function of the systems of the human body, emphasizing the anatomy, physiology and pathophysiology of the human eye. Visual recognition of common eye disorders is also discussed. Corequisite: OPT 1330. (3 hr. lecture)

OPT1330**Clinical Data Collection 1 2 credits**

Techniques necessary in a clinical environment for the collection of patient case history, entrance visual acuity, basic visual skills of ocular mobility and accommodation, color discrimination, depth perception and binocular fusion. Emphasis is also placed on gaining familiarity with the medical terminology as it relates to the visual system. Corequisites: OPT 1110, 1205. (2 hr. lecture)

OPT1331**Clinical Data Collection 2 2 credits**

Techniques necessary in a clinical environment for the collection of subjective and objective patient diagnostic information including visual field plotting, tonometry, lensometry, keratometry, and sphugmomanometry. Prerequisites: OPT 1150, 1331L. (2 hr. lecture)

OPT1331L**Clinical Data Collection 2 Laboratory 1 credit**

Laboratory for OPT1331 in which students are under the supervision of a licensed practitioner. Corequisite: OPT 1331. Laboratory fee. (2 hr. lab)

OPT1450**Ophthalmic Dispensing Procedures 1 1 credit**

Basic procedures of ophthalmic dispensing such as frame selection, measurement and laboratory ordering. Emphasis will be placed on common ophthalmic frame materials; crown glass and CR-39 lenses; absorptive lenses; and frame alignment, adjustment and repair. The student will demonstrate skills necessary for entry level ophthalmic dispensing in Vision Care Clinic. Prerequisite: OPT 1330; corequisites: OPT 1331, 1331L, 1450L. (1 hr. lecture)

OPT1450L**Ophthalmic Dispensing Procedures 1 Laboratory 1 credit**

Laboratory for OPT 1450. Corequisite: OPT 1450. Laboratory fee. (2 hr. lab)

OPT2060**Ophthalmic Management Policy & Procedures 2 credits**

Procedures and terminology used in the handling of patients, correspondence, legal and ethical principles, inter- and intra-professional relationships, and office management. Develop feasibility report of opening a retail ophthalmic dispensary. The history of opticianry, optometry and ophthalmology is traced. Special emphasis is on a comprehensive review of the curriculum. Prerequisite: OPT 1330, 2800L. (2 hr. lecture)

OPT2070L**Computers for Vision Care 1 credit**

This course introduces students to the use of computers in ophthalmic practice. Students will learn computer basics and the use of application software for maintaining patient records and billing. Elements of ophthalmic coding are included. (2 hr. lab)

OPT2375**Refractometry 1 credit**

Students will learn the basic principles of refractometry, theoretical aspects of retinoscopy, and the use of cross cylinders. Students will be able to describe various refractive problems and their solutions. Prerequisites: OPT 1150, 1205, 1331, 1331L; corequisite: OPT 2375L. (1 hr. lecture)

OPT2375L**Refractometry Laboratory 1 1 credit**

Students will practice theoretical concepts of refractometry using a retinoscope, auto-refractor, and cross cylinders in a laboratory setting. Prerequisites: OPT 1205, 1331, 1331L; corequisites: OPT 2375. (2 hr. lab)

OPT2376L**Refractometry Lab 2 1 credit**

This course is designed to provide the student with the hands on experience of hand neutralizing a pair of glasses, retinoscopy, and the use of the phoropter and the Snellen chart. (2 hr. lab)

OPT2377L**Refractometry 3 Laboratory 1 credit**

This laboratory course will continue to advance the skills already introduced in the previous laboratories 1 & 2. The improved skills will enhance the student's ability to determine the refractive status of the eye and be able to practice these skills on patients in the clinic. (2 hr. lab)

OPT2420**Eyewear Fabrication 1 2 credits**

Theory of ophthalmic surfacing procedures. Students acquire knowledge to arrange single vision lenses; use lensometers and lens clock; operate project-o-makers for single vision lens layout; select or fabricate frame patterns; and utilize several systems for edging lenses for ophthalmic frames. Prerequisite: OPT 1150; corequisites: OPT 1450, 1450L, 2420L, 2505. (2 hr. lecture)

OPT2420L**Eyewear Fabrication 1****Laboratory 1 credit**

Laboratory for OPT 2420. Corequisite: OPT 2420. Laboratory fee. (2 hr. lab)

OPT2421C**Eyewear Fabrication 2 3 credits**

Advanced techniques in measurement, fabrication, and verification of unifocal and multifocal lenses. Students fabricate finished eyewear from written specifications ensuring that current ANSI and FDA standards are exceeded. Prerequisites: OPT 2420, 2420L. (1 hr. lecture; 4 hr. lab)

OPT2422C**Eyewear Fabrication 3 3 credits**

A continuation of OPT 2421. Theory of evaluation and analysis of eyewear for accuracy and quality. Advanced techniques in operation of automated lens analyzer and lens edgers, and maintenance of equipment. Prerequisites: OPT 2420, 2421C. (1 hr. lecture; 4 hr. lab)

OPT2451**Ophthalmic Dispensing Procedures 2 1 credit**

Theory and terminology of advanced ophthalmic dispensing. Emphasis will be placed on new technology in ophthalmic frame materials; multifocal lenses including progressive power and blended bifocals; and high index lenses. The process of analyzing the patient's specific needs for the proper frame and lens selection is highlighted. Prerequisites: OPT 1450, 1450L; corequisite: OPT 2451L. (1 hr. lecture)

OPT2451L**Ophthalmic Dispensing****Procedures Laboratory 1 credit**

Laboratory for OPT 2451. Corequisite: OPT 2451. Laboratory fee. (2 hr. lab)

OPT2505**Contact Lenses 1 3 credits**

Basic principles of contact lens fitting, emphasizing soft lenses. Topics include lens-relate 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 lens. Particular attention is devoted to the patient that is having problems with contact lenses after long-term wear due to corneal changes and sensitivity to solutions under direct supervision of an optometrist. Prerequisite: OPT 2830C. Laboratory fee. (3 hr. clinic)

OPT2875L**Ophthalmic Dispensing****Practicum 1 2 credits**

Externship in an approved finishing laboratory of a retail ophthalmic dispensing establishment. The student will gain a working knowledge of ophthalmic frame and lens stock, inventory system, layout and blocking, chemical and heat treating, edging, tinting assembly and alignment of eyewear according to the written prescription. Prerequisites: OPT 2420, 2420L, 2451, 2451L; corequisite: OPT 2801L. (6 hr. lab)

OPT2876L**Ophthalmic Dispensing****Practicum 2 2 credits**

Externship in an approved retail ophthalmic dispensing establishment in the area of frame styling, ordering of appropriately designed lenses, adjustment, repair and dispensing of eyewear. The student will gain a working knowledge of administrative management procedures of the practice. Prerequisite: OPT 2875L. (6 hr. lab)

Selected Studies

###1920**WORKSHOP****3 credits**

Designed to provide in-depth study in various occupational areas. It may be varied according to faculty and student planning. This offering is numbered 1920 or 2920, with prefix of the subject area, in the department or discipline of study. May be repeated for credit.

###2920**WORKSHOP****3 credits**

Designed to provide in-depth study in various occupational areas. It may be varied according to faculty and student planning. This offering is numbered 1920 or 2920, with prefix of the subject area, in the department or discipline of study. May be repeated for credit.

###2990**SELECTED STUDIES****3 credits**

Designed to offer an in-depth treatment of special areas under the various occupational categories; it may be varied each term according to faculty and student planning. This offering is numbered 2990, with prefix of the subject area, in the department or discipline of study. Credits apply only to an Associate in Science degree. Prerequisite: Permission of the instructor and department chairperson.

###2995**OCCUPATIONAL PRACTICUM 3 credits**

Serves the teachers in various occupational disciplines. To study practical problems of an assigned discipline or critical study or curriculum development, laboratory planning, literature, research, and practice. May be repeated for credit.

VOCATIONAL CREDIT COURSES

Miami Dade College Vocational Certificate programs are designed 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 hrs.)

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 hrs.)

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 hrs.)

ACO0111 Accounting (Lab) Applications 1 credit

This course is intended to provide additional time on task for students who are attempting to fulfill the requirements of the Accounting Operations Certificate Program. The course is individualized according to each student's need. Special fee. (30 contact hrs.)

ACO0202 Accounting (Lab) Applications 2 1 credit

This course is intended to provide additional time on task for students who are attempting to fulfill the requirements of the Accounting Operations Certificate Program. The course is individualized according to each student's need. Special fee. (30 contact hrs.)

ACO0511 Microcomputers in Bookkeeping and Business 2.5 credits

This course is concerned with the use of microcomputers for accounting applications. It includes the preparation, interpretation, and use of microcomputer information in

financial decision making. Other business applications will be explored. Special fee. (75 contact hrs.)

ACO0751 Income Tax Accounting 2.5 credits

This course provides the student with an overview of the federal income tax system, presents the accounting procedures and rules that need to be understood to minimize the tax amount due to the government, within the tax laws. Special fee. (75 contact hrs.)

ACO0752 Business Forms 2.5 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 hrs.)

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 hrs.)

Apprenticeship - Electricity

BCA0350 Electricity 1 3 credits

This course provides students with a foundation in electrical theory, electrical safety, OSHA standards, and mathematical principles and formulas for the electrical industry. (90 contact hrs.)

BCA0351 Electricity 2 3 credits

This course presents the National Electrical Code (NEC) and its application to electrical wiring. Students are also introduced to various types of test equipment, fittings, conductors, blueprints, and residential and commercial wiring. (90 contact hrs.)

BCA0352 Electricity 3 3 credits

Circuits, current, and motor theory and application are presented. The student also learns about grounding, conduit systems, and conductor installations. (90 contact hrs.)

BCA0353 Electricity 4 3 credits

This course presents techniques for cable tray assembly and installation, crimping and splicing cable, and installation of various types of electrical services. Students also learn about circuit breakers and fuses, contactors and

relays, as well as lighting and lighting fixtures. (90 contact hrs.)

BCA0354 Electricity 5 3 credits

This course focuses on calculating loads and conductors. It also presents information on requirements for overcurrent protection, outlet and junction boxes, and wiring devices. (90 contact hrs.)

BCA0355 Electricity 6 3 credits

Students are provided with information on transformer operations and principles of light. Motor calculations, maintenance, and controls are also presented. (90 contact hrs.)

BCA0356 Electricity 7 3 credits

This course provides skills in calculating loads and circuits for various types of electrical systems. It offers the first part in a two-part series on motor maintenance. It also presents information on basic electronic theory, standby and emergency systems, fire alarm systems, and specialty transformers. (90 contact hrs.)

BCA0357 Electricity 8 3 credits

This is the second part of a two-part series on motor maintenance. It also presents the topics of advanced controls, and heating, ventilation, and air conditioning controls. (90 contact hrs.)

BCA0358 Electricity Co-op 1 18.13 credits

This a Year One, Semester One, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the electricity Apprenticeship Program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

BCA0359 Electricity Co-op 2 18.13 credits

This a Year One, Semester Two, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Electricity Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

BCA0360 Electricity Co-op Summer 1 30.4 credits

This a Year One, Summer One, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Electricity Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (912 contact hrs.)

BCA0361**Electricity Co-op 3** 18.13 credits

This a Year Two, Semester One, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Electricity Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

BCA0362**Electricity Co-op 4** 18.13 credits

This a Year Two, Semester Two, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Electricity Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

BCA0363**Electricity Co-op Summer 2** 30.4 credits

This a Year Two, Summer Two, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Electricity Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (912 contact hrs.)

BCA0364**Electricity Co-op 5** 18.13 credits

This a Year Three, Semester One, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Electricity Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

BCA0365**Electricity Co-op 6** 18.13 credits

This a Year Three, Semester Two, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Electricity Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

BCA0366**Electricity Co-op Summer 3** 30.4 credits

This a Year Three, Summer Three, coordinated work-study program that reinforces the educational and professional growth of stu-

dents through parallel involvement in classroom instruction and field experience for the Electricity Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (912 contact hrs.)

BCA0367**Electricity Co-op 7** 18.13 credits

This a Year Four, Semester One, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Electricity Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

BCA0368**Electricity Co-op 8** 18.13 credits

This a Year Four, Semester Two, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Electricity Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

BCA0369**Electricity Co-op Summer 4** 30.4 credits

This a Year Four, Summer Four, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Electricity Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (912 contact hrs.)

BCV0850**Plumbing 1** 2.7 credits

This course covers the essentials of code law and careers related to plumbing, tools, pipes and fittings used in plumbing installation; safety and hazardous materials training; and review of basic mathematics and sciences applied to the plumber's craft. (80 contact hrs.)

BCV0852**Plumbing 2** 2.7 credits

This course provides an overview of installation practices of plumbing fixtures, faucets and valves, first aid, occupational safety and health, and blueprint reading and sketching. (80 contact hrs.)

BCV0853**Plumbing 3** 2.7 credits

Instruction includes plumbing installation techniques, including water pipes, distribution systems, water heaters, sewage and drainage fixtures and continued development of applied mathematics skills. (82 contact hrs.)

BCV0854**Plumbing 4** 2.8 credits

This course teaches welding techniques and safety, including soldering, brazing and cutting, metal-arc and oxy-acetylene welding and pipe tacking. Other topics include plumbing installation techniques involving sewage pumps and ejectors, venting, and hangers; scientific concepts of water and water pressure related to plumbing; rigging and hoisting techniques and safety are reviewed. (83 contact hrs.)

BCV0855**Plumbing 5** 2.5 credits

This course introduces residential and commercial installation of plumbing fixtures and appliances, develops more mathematical concepts used by plumbers, and covers gas codes for installation, inspection and testing. (76 contact hrs.)

BCV0856**Plumbing 6** 2.5 credits

This course covers more topics in applied mathematics used by plumbers including calculations of tank capacities, volume and weight of water, sizing storm drains and piping expansion. Advanced applied scientific topics include heat transfer, basic electricity, electric current, electrical safety and electrical troubleshooting and advanced structural blueprint reading, including floor plans, site plans, plumbing, electrical, HVAC, and detail plans. (76 contact hrs.)

BCV0857**Plumbing 7** 2.5 credits

This course introduces repairs and servicing of residential, commercial, institutional and industrial fixtures and piping systems. Mathematical concepts are advanced using formulas and tables to calculate pipe and system sizing. Heating systems are covered, including hot water boilers, steam boilers, hydronic, warm air, solar and humidification systems. (76 contact hrs.)

BCV0858**Plumbing 8** 2.6 credits

This course continues the science applications related to pumps and pump repair and maintenance. Advanced blueprint reading, sketching and materials take-off and estimates are covered. Plumbing codes are emphasized including regulations regarding sanitary drainage systems, medical facility plumbing, private sewage disposal, portable water supply pumps for mobile homes and trailer parks. (77 contact hrs.)

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 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 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 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 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

ACR0911 HVAC Co-op Summer 1 30.4 credits

This a Year One, Summer One, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the 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.)

ACR0912 HVAC Co-op Summer 2 30.4 credits

This a Year Two, Summer Two, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the 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.)

ACR0913 HVAC Co-op Summer 3 30.4 credits

This a Year Three, Summer Three, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the 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 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.)

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.)

ACR0932 HVAC Co-op 3 18.13 credits

This is a Year Two, Semester One, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Heating, Ventilation, and Air Conditioning Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

ACR0933 HVAC Co-op 4 18.13 credits

This is a Year Two, Semester Two, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Heating, Ventilation, and Air Conditioning Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

ACR0934 HVAC Co-op 5 18.13 credits

This is a Year Three, Semester One, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Heating, Ventilation, and Air Conditioning Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

ACR0935 HVAC Co-op 6 18.13 credits

This is a Year Three, Semester Two, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Heating, Ventilation, and Air Conditioning Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

ACR0936 HVAC Co-op 7 18.13 credits

This is a Year Four, Semester One, 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.)

ACR0940 HVAC 1 2.67 credits

This course provides an introduction to the Heating, Ventilation, and Air Conditioning Trade and presents information on mathematics and tools of the trade for first year apprentices. (80 contact hrs.)

ACR0941 HVAC 2 2.67 credits

This course continues the topics presented in HVAC 1, and introduces students to heating and cooling systems. (80 contact hrs.)

ACR0942 HVAC 3 2.67 credits

This course provides instruction for second year apprentices in gas laws and the properties of air, as well as the use and installation of various types of duct systems. The principles of combustion, mechanical maintenance, and basic electronics are also presented. (80 contact hrs.)

ACR0943 HVAC 4 2.67 credits

The focus of this course is in understanding the function and operation of control systems, metering devices, compressors, and heat pumps. Students will be able to complete the installation and servicing of this equipment. (80 contact hrs.)

ACR0944 HVAC 5 2.67 credits

This course provides skills in maintenance and troubleshooting of various types of HVAC systems and equipment for the third year apprentice. (80 contact hrs.)

ACR0945 HVAC 6 2.67 credits

This course is a continuation of HVAC 5, with the addition of information on air distribution and steam systems, as well as establishing and maintaining good customer relations. (80 contact hrs.)

ACR0946
HVAC 7 **2.67 credits**
 This course provides advanced blueprint reading, and presents the fourth year apprentice with information on energy conservation and management equipment and systems. (80 contact hrs.)

ACR0947
HVAC 8 **2.67 credits**
 Students learn about water quality and treatment, and how to design heating and cooling systems. This course also covers commercial and industrial refrigeration. (80 contact hrs.)

Apprenticeship - Plumbing

BCV0859
Plumbing Summer
Co-op 1 **16.7 credits**
 This is a Year One, Summer One coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Plumbing Apprenticeship Program. Field Activities. This summer cooperative experience is the continuation and completion of Plumbing Co-op 1 and 2. (500 contact hrs.)

BCV0860
Plumbing Summer
Co-op 2 **16.7 credits**
 This is a Year Two, Summer Two coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Plumbing Apprenticeship Program. Field activities. This summer cooperative experience is the continuation and completion of Plumbing Co-op 3 and 4. (500 contact hrs.)

BCV0861
Plumbing Summer
Co-op 3 **16.7 credits**
 This is a Year Three, Summer Three coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Plumbing Apprenticeship Program. Field activities. This summer cooperative experience is the continuation and completion of Plumbing Co-op 5 and 6. (500 contact hrs.)

BCV0862
Plumbing Summer
Co-op 4 **16.7 credits**
 This is a Year Four, Summer Four coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Plumbing Apprenticeship Program. Field activities. This summer cooperative experience is the continuation and completion of Plumbing Co-op 5 and 6. (500 contact hrs.)

BCV0940
Plumbing Co-op 1 **25 credits**
 This is a Year One, Semester One, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom studies and field experience for the Plumbing Apprenticeship Program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (750 contact hrs.)

BCV0941
Plumbing Co-op 2 **25 credits**
 This is a Year One, Semester Two, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom studies and field experience for the Plumbing Apprenticeship Program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (750 contact hrs.)

BCV0942
Plumbing Co-op 3 **25 credits**
 This is a Year Two, Semester One, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom studies and field experience for the Plumbing Apprenticeship Program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (750 contact hrs.)

BCV0943
Plumbing Co-op 4 **25 credits**
 This is a Year Two, Semester Two, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom studies and field experience for the Plumbing Apprenticeship Program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (750 contact hrs.)

BCV0944
Plumbing Co-op 5 **25 credits**
 This is a Year Three, Semester One, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom studies and field experience for the Plumbing Apprenticeship Program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (750 contact hrs.)

BCV0945
Plumbing Co-op 6 **25 credits**
 This is a Year Three, Semester Two, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom studies and field experience for

the Plumbing Apprenticeship Program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (750 contact hrs.)

BCV0946
Plumbing Co-op 7 **25 credits**
 This is a Year Four, Semester One, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom studies and field experience for the Plumbing Apprenticeship Program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills (750 contact hrs.)

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. They 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 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 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 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 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 a Year Two, Semester Two, coordinated work-study program that reinforces the edu-

cational 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 a Year One, Summer Two, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Sheet Metal Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (912 contact hrs.)

PMT0948**Sheet Metal Co-op 5****18.13 credits**

This a Year Three, Semester One, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Sheet Metal Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

PMT0949**Sheet Metal Co-op 6****18.13 credits**

This a Year Three, Semester Two, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Sheet Metal Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

PMT0950**Sheet Metal****Co-op Summer 3****30.4 credits**

This a Year Three, Summer Three, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Sheet Metal Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (912 contact hrs.)

PMT0951**Sheet Metal Co-op 7****18.13 credits**

This a Year Four, Semester One, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Sheet Metal Apprenticeship program. Field activities are coordinated with classroom activities

to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

PMT0952**Sheet Metal Co-op 8****18.13 credits**

This a Year Four, Semester Two, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Sheet Metal Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (544 contact hrs.)

PMT0953**Sheet Metal****Co-op Summer 4****30.4 credits**

This a Year Four, Summer Four, coordinated work-study program that reinforces the educational and professional growth of students through parallel involvement in classroom instruction and field experience for the Sheet Metal Apprenticeship program. Field activities are coordinated with classroom activities to provide students the opportunity to apply their knowledge and gain hands-on skills. (912 contact hrs.)

Architectural Drafting Technology

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 hrs.)

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 hrs.)

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 multistory building systems. Special fee. (90 contact hrs.)

ARV0307**Cooperative Education****Architectural Drafting 2****3 credits**

This course is an advanced internship in the field of architectural drafting. A signed agreement must specify the learning objectives that the student will accomplish, and must be signed by the student, faculty coordinator, and employment site supervisor. Special fee. (90 contact hrs.)

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 hrs.)

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 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 hrs.)

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 hrs.)

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 hrs.)

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 hrs.)

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 hrs.)

Business**MKA0250****Economic Principles of Import/Export 1 credit**

This course will help the student understand the economic forces which affect import and export activity. The course will demonstrate the effect of the economic decisions of both U.S. and foreign governments on international commerce. Emphasis will be placed on real-world solutions. Special fee. (30 contact hrs.)

MKA0251**Import/Export Financing 2 credits**

This course will show the student how public and private financing programs operate. A variety of financing vehicles, including letters of credit, will be discussed in a hands-on environment. Special fee. (60 contact hrs.)

MKA0300**Customer Service/Business 2.5 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 hrs.)

MKA0949**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 hrs.)

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 hrs.)

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 hrs.)

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 hrs.)

SBM0125**Personal Financial Businessperson 2.5 credits**

This course covers the basic topics of personal finance from the point of view of the business person who wishes to maximize economic well being by effective budgeting, borrowing, banking, investing, insurance coverage, and retirement planning. Special fee. (75 contact hrs.)

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 hrs.)

Business Law**BUL0243****Business Law I 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 hrs.)

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 hrs.)

Computer Science & Related Technologies**CGS0281****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. (75 contact hrs.)

CGS0282**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 that benefits the novice as well as the experienced network professional. Prerequisites: CGS 0286. Laboratory fee. (75 contact hrs.)

CGS0306**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 hrs.)

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 hrs.)

CGS0463**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 hrs.)

CGS0566**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 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 hrs.)

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 hrs.)

CTS0045**Advanced Programming in BASIC 2.5 credits**

This is the second programming course using QuickBASIC with complex concepts, applications, files, design and algorithms. Course emphasizes problem solving using applications for commercial and business problems encountered by professional programmers. Special fee. (75 contact hrs.)

CTS0048**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. Fundamentals programming techniques, concepts, and commonly used algorithms are covered. Special fee. (75 contact hrs.)

CTS0050**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 hrs.)

CTS0053**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 assigned a microcomputer to use during class. No previous computer training or experience is required. Special fee. (45 contact hrs.)

CTS0055**Electronic Spreadsheets with Applications 2.5 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 hands-on lecture/laboratory environment. The content of this course will continually change to keep pace with current technology. Prerequisite: CGV 0010 or equivalent. Special fee. (75 contact hrs.)

CTS0065**Database and Applications & Programming 2.5 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, and 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 hrs.)

CTS0066**Database Programming 2.5 credits**

This is not an introductory course. Basic familiarity with creating and manipulating dBASE IV data files from the dot prompt and control center a prerequisite. Previous familiarity with frequently used dBASE IV 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 hrs.)

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 hrs.)

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 hrs.)

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, 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: CTS 0093. 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: CTS 0093. Special fee. (75 contact hrs.)

CTS0095**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. Prerequisite: CTS 0091. Laboratory fee. (75 contact hrs.)

CTS0098**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 with begin online. A combination of lectures, demonstrations, discussions, online assignments, and scenario-based projects are used. This course may be repeated up to three (3) times with different versions of the software when there have been substantial or significant version changes. Laboratory fee. (75 contact hrs.)

EEV0554**Networking Essentials****2.5 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.)

Criminal Justice & Related Technologies

CJC0104**Correctional Officer****Basic Defensive****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 hrs.)

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.)

CJK0007**Introduction to****Law Enforcement****0.36 credits**

This is an introduction to law enforcement in Florida and students will learn the his-

tory of the Criminal Justice System in Florida and contemporary law enforcement issues. (11 contact hrs.)

CJK0008**Legal****2.3 credits**

This is an introduction to law and the students will learn the basics of law, ethics elements of a crime, professionalism, and court room procedure. (69 contact hrs.)

CJK0011**Human Issues****1.33 credits**

This course provides the student with a basic understanding of human relations with an emphasis on the student's ability as a Police Officer to influence others in a positive manner using interpretation skills. The student will learn the important role interpersonal skills play in the relationship between the police and community. For School of Justice students only. (40 contact hrs.)

CJK0015**Communications****2.57 credits**

This course is designed to teach trainees to take statements from victims, witnesses, and suspects; write incident and arrest reports; and engage in 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.)

CJK0017**Communications****2.53 credits**

In this course students will learn to take statements from victims, witnesses, and suspects; write clear concise and accurate incident and arrest reports; and will engage in note taking skills such as grammar, spelling and proper sentence structure. For School of Justice students only. (76 contact hrs.)

CJK0020**CMS Law Enforcement****Vehicle Operations****1.6 credits**

Students will learn the physiological and psychological factors affecting vehicle operations and the importance of vehicle maintenance, environmental conditions affecting driving, and elements of basic driving skills including skids and other causes of accidents. Students will demonstrate hands-on basic driving skills. For School of Justice students only. (48 contact hrs.)

CJK0031**CMS First Aid For****Criminal Justice Officers****1.33 credits**

Students will learn to initiate treatment for a variety of medical emergencies, understand and perform CPR, and know when to activate EMS and perform basic life support until help arrives. CPR and First Responder certification cards are issued upon successful completion. This course prepares criminal justice recruits for a variety of medical emergencies with minimal medical supplies. Basic training for School of Justice students only. (40 contact hrs.)

CJK0040**CMS Criminal****Justice Firearms****2.66 credits**

Students will learn how to use both handguns and shotguns. Students must qualify with both weapons under both daylight and night conditions. Students must also demonstrate ability for both accuracy and decision making. Students are also introduced to chemical weapons and their effects. (80 contact hrs.)

CJK0041**Public Service Aide****Basic Training****3.66 credits**

This course prepares students to become Community Service Officers/Police Service Aides by providing them with the basic knowledge needed to conduct preliminary property crimes investigations. For School of Justice students only. Special fee. (110 contact hrs.)

CJK0050**Criminal Justice****Defensive Tactics****2-3 variable 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. (80-100 contact hrs.)

CJK0051**CMS Criminal Justice****Defensive Tactics****2.66 credits**

Students will learn how to physically defend themselves, physically control persons under arrest, and know what level of force is appropriate under differing circumstances. Additionally, a physical conditioning program is part of this course. For School of Justice students only. (80 contact hrs.)

CJK0060**Patrol****1.9 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.)

CJK0061**Patrol 1****1.93 credits**

Students will learn problem solving, officer safety and survival, patrolling the assigned area and patrol functions. This course is the patrol 1 section of the Florida Department of Law Enforcement, Criminal Justice Standards and Training Commission New Basic Law Enforcement Recruit Training Program. CMS BRT Program, Version 2008.04. (58 contact hrs.)

CJK0062**Patrol 2****1.33 credits**

Students will learn about incident command, crowd control, criminal street gangs and extremist groups. Students will learn about

Hazmat and Weapons of Mass Destruction.

This is a vocational course in the patrol 2 section of the Florida Department of Law Enforcement, Criminal Justice Standards and Training Commission new Basic Law Enforcement recruit Training Program. CMS BRT PROGRAM VERSION 2008.04. (40 contact hrs.)

CJK0070**Investigations****1.77 credits**

This course provides training for new recruits in the search and location of physical evidence, along with the reproduction and identification collection, preservation and transporting of evidence to the crime laboratory. A basic understanding of the investigation of crimes needed by the street officer in their initial involvement of a crime scene will be provided. In addition, the fundamentals of interviewing, interrogation and statement taking will be addressed. For School of Justice students only. (53 contact hrs.)

CJK0071**Criminal Investigations****1.86 credits**

The students will learn what is required when doing searches and location of physical evidence, along with the reproduction and identification collection, preservation and transporting of evidence to the crime laboratory. The students learn the basic understanding of the investigation of various crimes encountered by a street officer in their initial involvement of a crime scene. In addition, the fundamentals of interviewing, interrogation and statement taking will be addressed. For School of Justice students only. (56 contact hrs.)

CJK0075**Investigating Offenses****1.33 credits**

This course includes the causes and effects of domestic violence; common facts and misconceptions about suicide and risks procedures for prevention and intervention and an officers responsibilities; identifying signs of adult, elder and child abuse and the proper procedure for reporting each. This course also includes methods and skills for conducting an initial investigation, a death: The definition, characteristics and situation in which an officer may encounter Sudden Infant Death Syndrome (SIDS); procedures for crime scene management; evidence collection and handling; developing information; and preparing and investigation report. (40 contact hrs.)

CJK0076**Crime Scene****Investigations****0.8 credits**

The students will learn the causes and effects of domestic violence; common facts and misconceptions about suicide and risks procedures for prevention and intervention and office's responsibilities; identifying signs of adult, elder and child abuse and the proper procedure for reporting each.. Students will learn the methods and skills for conducting an initial investigation, a death investigation, Sudden Infant Death Syndrome (SIDS) investigations, procedures for crime scene man-

agement; evidence collection and handling; developing information; and preparing an investigation report and characteristics and situations an officer may encounter. (24 contact hrs.)

CJK0082**Traffic Stops****0.8 credits**

This course is designed to teach students the necessary methods and skills for stopping a vehicle for a violation or other lawful reason. Students will learn traffic laws, professionalism, how to make traffic stops, the unknown risks of a traffic stop, and identifying, initiating and making high-risk traffic stops. Special Fee. For School of Justice students only. (24 contact hrs.)

CJK0083**DUI Traffic Stops****0.8 credits**

This course is designed to teach students to detect impaired driving. Students will learn to administer field sobriety tests, make arrests when appropriate, and record the evidence of a DUI violation. Special fee. For School of Justice students only. (24 contact hrs.)

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.)

CJK0086**Traffic Crash****Investigations****1.06 credits**

The student will learn traffic crash investigations; knowledge of common violations resulting in crashes; information gathering skills; identification and handling of evidence; photographing evidence; crash scene management, determining cause of accident; and completion of crash reports and driver exchange forms and returning the scene to normal. (32 contact hrs.)

CJK0090**Tactical Applications****1.8 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.)

CJK0096**Criminal Justice Officer****Physical Fitness Training****2 credits**

The student will learn the benefits of maintaining physical fitness to include nutrition and diet. The student will also learn the effects of and how to deal with stress, how to build up muscular and cardiovascular endurance and perform the exercises as required. For School of Justice students only. (60 contact hrs.)

CJK0100**Interpersonal Skills 1****2.07 credits**

This course provides an understanding of human behavior competencies as it relates to correction work. This course includes facts, information, and data concerning human behavior, with emphasis not only of the inmate population, but also on the Correction Officer as well. For School of Justice students only. (63 contact hrs.)

CJK0101**Interpersonal Skills 2****1.67 credits**

This course is a continuation of CJK 0100 with greater emphasis on the inmates, their culture, how to communicate effectively, and ultimately to control inmate behaviors. The student will comprehend the characteristics, categories, purposes and functions of inmate societies. The factors of pressures, deprivations, and adjustments to imprisonment are also discussed. Students will learn the basic responsibilities and objectives of supervising inmates. For school of Justice students only. (51 contact hrs.)

CJK0102**Correctional Operations****4.6 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 hrs.)

CJK0109**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 basic Correctional Officer curriculum. Diligent use of review materials in this course will serve as excellent preparation for the FDLE Correctional Officer Certification Exam. This course is for SJSA Correctional Officers only. (21 contact hrs.)

CJK0212**Cross-Over CO to LE****0.26 credits****CMS High-Liability**

Basic recruit students will learn the required Firearms High-Liability Proficiency Skills using a handgun (revolver or semi-automatic pistol for both daylight and night) and a long gun (shotgun or semiautomatic rifle/carbine), pursuant to Rule 11B-3 5.0024, F.A.C. (8.0 contact hrs.)

CJK0221**Correctional Cross-Over****to LE Introduction and Legal****1.56 credits**

The students will learn and understand the importance of ethics, values, and professionalism, both in their personal lives and in their role as law enforcement officers. (47 contact hrs.)

CJK0222**Correctional Cross-Over****to LE Communications****1.86 credits**

Students will learn to take statements from victims, witnesses, and suspects; write clear concise and accurate incident and arrest reports; and will engage in note taking skills such as grammar, spelling and proper sentence structure. For School of Justice students only. (56 contact hrs.)

CJK0223**Correctional Cross-Over****to LE Human Issues****1.06 credits**

This course provides the student with a basic understanding of human relations with an emphasis on the student's ability as a Police Officer to influence others in a positive manner using interpretation skills. The student will learn the important role that interpersonal skills play in the relationship between the police and community. For School of Justice students only. (32 contact hrs.)

CJK0255**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 SJSA basic Correctional Officer training only. (9 contact hrs.)

CJK0270**Criminal Justice Legal 1****1.53 credits**

This section introduces the students to some historical and legal foundations. It also covers ethical considerations in Corrections and them provides the student with a foundation in Substantive and Procedural Law. The student is acquainted with constitutional rights of inmates through Inmate Rights and Responsibilities. For School of Justice students only. (46 clock hours)

CJK0271**Criminal Justice Legal 2****0.73 credits**

This section introduces the student to the foundation of Constitutional Law, establishing this country as a "Rule of Law" nation. It also presents concepts and rules of evidence.

Substantive crimes such as homicide and theft are covered, in addition to some procedural matters such as involuntary admission procedures. For School of Justice students only. (21 contact hrs.)

CJK0272**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 hrs.)

CJK0280**CMS Criminal Justice****Officer Physical****Fitness Training****1.33 credits**

Students will learn the benefits of maintaining physical fitness to include nutrition and diet. Students will learn of the effects of stress and how to deal with it; how to build up muscular and cardiovascular endurance and perform the exercises as required. For School of Justice students only. (40 contact hrs.)

CJK0422**Dart-Firing Stun Gun****0.26 credits**

Students will learn how a dart-firing stun gun works, what effects a dart-firing stun gun has on the human body, and the necessary medical considerations for individuals exposed to a dart-firing stun gun. This course satisfies the statutory requirements of F.S. 943.1717(2) for an officer to use a dart-firing stun gun in Florida. (8 contact hrs.)

CJK0441**Public Service Aide****Basic Training****3.66 credits**

This course prepares students to become Community Service Officers/Police Service Aides by providing them with the basic knowledge needed to conduct preliminary property crimes investigations. For School of Justice students only. Special fee. (110 contact hrs.)

CJK0451**Parking Enforcement****Specialist Training 1****0.53 credits**

This course prepares students to become Parking Enforcement Specialists by teaching them traffic law, enforcement and control concepts. Course content will also include interpersonal skills, courtroom procedures and how to complete traffic citations. This course is limited to School of Justice students only. (15.9 contact hrs.)

CJK0480**Emergency Preparedness****0.86 credits**

Students will learn how to handle emergency situations in a correctional setting such as fires, hostage situations, riots and disturbances, and hazardous materials, etc. For School of Justice students only. Special fee. (26 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 hrs.)

CJT0801**Private Security Guard****Training 2:
Class "G" License 0.94 credits**

This course is necessary for compliance with the state minimum training standard for a Class "G" (armed Security Guard License. (28.20 contact hrs.)

SCY0010**Surety Agent****4 credits**

This course includes introduction to the Criminal Justice system, duties of surety and bail bonding agents; bail bonding process, bail bond laws and regulations; contract law, civil and criminal laws, laws of arrest and arrest techniques, judgment and indemnifications, courtroom organizations, community relations, employability skills and firearm safety. Special fee. (120 contact hrs.)

SCY0051**Private Investigator****Intern Course A 0.8 variable credits**

This course requires twenty four hours of training as required by Section 493.6203(b) ES. for Private Investigator Interns. Students will learn topics which include Florida Statutes and Florida Administrative Code, the Intern/Sponsor Relationship, Ethics, Liability, Surveillance, Report Writing, Equipment, Interviewing, Sources of Information, the Computer and Investigations, and Restrictions on Records. (24 contact hrs.)

SCY0052**Private Investigator****Intern Course B 0.53 variable credits**

This course requires sixteen hours of training as required by Section 493.6203(b) ES. for Private Investigator Interns. Students will learn topics which include locating people and performing background investigations, evidence, executive protection, anti-terrorism, courtroom and formal hearing demeanor, pretrial responsibilities, and the investigator as a witness. Prerequisite: SCY 0051 (16 contact hrs.)

SCY0503**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 hrs.)

Engineering Technology-General**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 hrs.)

EEV0520C**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 hrs.)

EEV0555**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 hrs.)

EEV0561**Microcomputer Maintenance****& 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 hrs.)

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 hrs.)

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 hrs.)

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. (126 contact hrs.)

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 hrs.)

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 hrs.)

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 hrs.)

EEV0852**Microcomputer****Maintenance****& Repair 2****2.5 credits**

This course teaches troubleshooting skills to repair microcomputers and printers, with emphasis on a hard disk maintenance and repair. Special fee. (75 contact hrs.)

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 hrs.)

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 hrs.)

TDR0106C**Technical Drawing 4 credits**

This course focuses on the dimensioning practice, tolerancing, welding drafting, screw thread drafting and developments are covered. Drafting is accomplished on conventional paper medium and in a CAD environment. Lab time is required. Prerequisite: TDR 0301C. Special fee. (120 contact hrs.)

TDR0301C**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 hrs.)

TDR0356C**Advanced CAD-Technical 4 credits**

This course focuses on the preparation of detailed drawings in 2-D and 3-D utilizing advanced practices with AutoCAD. Drawing will be generated as machine assemblies, foundation plans, roofing schedules, wall and window sections, piping drawings and sheet metal developments. Bills of materials and scheduling are presented as integrated drawings. Prerequisite: ETD 0542C. Lab time required. Special fee. (120 contact hrs.)

TDR0591C**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. Special fee. (150 contact hrs.)

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 style-book applications. The students will write several news stories and a newscast. Special fee. (45 contact hrs.)

RTT0003**Careers in Video 1 credit**

This course is designed to confirm an overview of the varied possible professional choices in the entertainment field. To emphasize that the video industry is comprised of ever changing 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 hrs.)

RTT0170**Television Graphics Procedures 3 credits**

This course requires the students to participate in the practical use of and production of visual graphics material for television, covering the standards and procedures established in the field, and the most common techniques and materials. Special fee. (90 contact hrs.)

RTT0176**TV Production Procedures 2 5 credits**

Students will refine skills as a member of a TV Studio Production Crew. Students will perform crew operations during various studio productions. Special fee. (150 contact hrs.)

RTT0177**Field Production Procedures 1 5 credits**

Students will participate in several single camera field productions. Students will shoot; edit and post produce single camera field productions. Special fee. (150 contact hrs.)

RTT0178**Field Production Procedures 2 5 credits**

Students will learn and participate in advanced single-camera production. Students will edit single-camera production using BetaCam SP A/B Roll Equipment. Students will learn and participate in a multi-camera format production outside the studio environment. Each student will perform various job functions, resulting in a class project. Special fee. (150 contact hrs.)

RTT0181**TV Production Procedures 1 5 credits**

This course is to familiarize the student with the different equipment that prepares them to function as a member of a technical team for a video production in a Television Studio. Special fee. (150 contact hrs.)

RTT0182**Television Directing Procedures 5 credits**

Students will learn the disciplines, techniques and procedures used by the Television Director during the studio production process. The student will assume the responsibilities of the Television Director and coordinate the various production elements from the Control Room. Students will learn key terms used by the Director and master the Control Room equipment. Prerequisite: RTT 0176. Special fee. (150 contact hrs.)

RTT0184**TV Editing Procedures 5 credits**

This course is designed to familiarize the student with an editing suite and to give the student the opportunity to perform the functions of an editor. In order to do this, we will use BetaCam editing equipment and the Sony BVE 910 edit control. Students will also operate Character Generators, switchers and DVE generators to enhance assignments. Non-Linear editing has been added to this course. Students will work with and get an appreciation on the AVID non-linear editing system. Prerequisite: RTT 0177. Special fee. (150 contact hrs.)

RTT0189**TV Film Computer Applications Procedures 3 credits**

Applications of software and computer languages in the television industry. Includes introduction to integrated software for script-writing, storyboarding, production scheduling, cost controls, project inventory and computer generated graphics. Special fee. (90 contact hrs.)

RTT0193**Advanced Editing Procedures 5 credits**

This course is designed to familiarize students with non-linear editing. The course also gives the student the opportunity to perform the activities of a non-linear editor.

In order to accomplish this, the course will use three non-linear editing systems; the AVID and Media 100 non-linear computer editing system for video and audio editing and DegiDesign with Pro Tools for audio only non-linear editing. Prerequisite: RTT 0184. Special fee. (150 contact hrs.)

RTT0200**Broadcast Communication Survey 1.5 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 hrs.)

RTT0201**Radio Productions 3 credits**

The purpose of this course is to prepare students for initial employment as a radio programming announcer broadcast technician, or to provide supplemental training for persons previously or currently employed in these occupations. Special fee. (90 contact hrs.)

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 station organization and procedure is combined with announcing in a manner required of announcer-operators in smaller radio stations. Special fee. (75 contact hrs.)

RTT0222**Announcing on Radio 2.5 credits**

This course emphasized the fundamentals of good speech, effective oral delivery, interview materials that are included in the third class license exam, and introduces employability skills needed in the industry. Special fee. (75 contact hrs.)

RTT0400**TV Master Control Operations 3 credits**

This course is designed to familiarize the student with master control operations typical of a commercial broadcast station, cable company or independent provider. The course includes station operation, programming, 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 hrs.)

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 hrs.)

RTT0944**Radio Internship 1**

5 credits

This course provides practice in the skills needed for employment in a smaller type radio station. The course is established by determination of six learning objectives which are approved and evaluated in writing by student, supervisor and faculty coordinator. Special fee. (150 contact hrs.)

RTT0945**Radio Internship 2**

5 credits

This course provides more advanced practice in the skills needed for employment in a smaller type radio station. The course is established by determination of learning objectives which are approved and evaluated in writing by student, supervisor and faculty coordinator. Special fee. (150 contact hrs.)

Fire Science

FFP0021**Fire Fighter Minimum Standards**

15 credits

This course teaches the initial and intermediate knowledge and skills for prospective firefighters. Via lectures, drills, and evolutions, students will learn to operate as a team under supervision. Successful completion of all examinations, performance objectives and adherence to the Student Manual are required. Fire Academy Students Only. (450 contact hrs.)

FFP0077**First Responder**

1.5 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 hrs.)

General Business

GEB0036**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, busi-

ness law concepts and characteristics of the American enterprise system. Special fee. (75 clock 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 hrs.)

Graphic Arts

GRA0420**Computer Graphic Design** 4 credits

This course is intended to train the desktop publishing student in programs that enable one to create and manipulate graphic illustrations. The two standard programs that are used in the industry are utilized, with lab activities that highlight important program features. Special fee. (120 contact hrs.)

GRA0430**Desktop Publishing** 4 credits

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 hrs.)

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 hrs.)

GRA0446**Principles of Typography** 4 credits

Typography is the art of designing printed matter using type as a medium. The history and development of typography, the use of printer's measurements and the aesthetic uses of type will be covered in the lecture form. The production of learned through hands-on project assignments. Instruction also will include industry standard typeset-

ting equipment and desktop publishing personal computers and software. Special fee. (120 contact hrs.)

GRA0451**Graphic Photography****Processes** 4 credits

Graphic photo processes-line is a basic course in the use of a graphic arts process camera, films, and chemistry. Numerous hands-on projects will include determining exposure and development times, enlargements and reductions, copying, scaling, print making, and proofing. Special fee. (120 contact hrs.)

GRA0452**Halftone Processes****for Graphic Arts** 4 credits

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 hrs.)

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 are discussed throughout this class. Special fee. (60 contact hrs.)

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 hrs.)

GRA0460**Graphic Design 1** 4 credits

This is an introduction to the basic skill technique of visual communication problems such as those involving perspective, proportion, and representative drawing. Special fee. (120 contact hrs.)

GRA0461**Graphic Design 2** 4 credits

This course trains on the process of quality layout and graphic design. It covers studio projects such as ads, brochures, and logo designs. The basics of formal graphic design are covered in a creatively professional standard. Special fee. (120 contact hrs.)

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 hrs.)

GRA0463**Graphic Design 4 4 credits**

This is a problem-solving course in graphic communications. Studio projects such as self-identity campaigns, book covers, label design and similar are covered. Electronic publishing skills in packages as Illustrator, Freehand, and Photoshop are utilized. Special fee. (120 contact hrs.)

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 hrs.)

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 student to use a wide variety of digital tools and surfaces to create electronic illustrations. Special fee. (120 contact hrs.)

GRA0472**Offset Stripping 2 4 credits**

This is a vocational credit course that is an advanced course in film assembly for multi-color and 4 color process film assembly using the emulsion-up method. Hands-on projects will range from simple mechanically separate (fake color) projects to 4-color process separations for an 8 page brochure. This course is highly recommended because of the increased demand for color within the advertising field. Special fee. (120 contact hrs.)

GRA0474**Offset Presswork 1 4 credits**

This is a vocational credit course that is divided into two sections: theory/practice and co-op training. The theory/practice section will cover the six main systems of a press covering the names of each part, its function, techniques and make-ready. The six systems are the feeder, register, main printing, delivery, dampening, and inking. Practice sessions setting up each system for each different paper sizes and stocks will be given to each student. The Co-op training section will have the student working in a local printing plant with live jobs to gain additional skills and to increase efficiency. Special fee. (120 contact hrs.)

GRA0481**Paper in Graphics 1.5 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 hrs.)

GRA0482**Graphic Arts Estimating 1 2 credits**

Estimating is the developing of a price of a print job for the customer before it is actually printed, based on the jobs 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. Special fee. (60 contact hrs.)

GRA0840**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 hrs.)

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 hrs.)

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 hrs.)

Health Information Management

HIM0001**Introduction to Health Information Management****1-2 variable credits**

This is an introductory course in the principles of health information management. Students will learn ethical aspects and components of the health record, proper docu-

mentation, purposes and uses; legal principles that govern the health information field including access to patients' records, confidentiality, and informed consent. (30-60 contact hrs.)

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.)

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 0061, 0061L, 0062, 0062L. (150 contact hrs.)

HIM0061**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 hrs.)

HIM0061L**Medical Record****Transcription 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 0061. Special fee. (180 contact hrs.)

HIM0062**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 hrs.)

HIM0062L**Medical Record****Transcription Applications 2 6 credits**

This course is the applications for HIM 0032. Transcription from selected medical specialties. Prerequisite: HIM 0062. Special fee. (60-180 contact hrs.)

HIM0063**Medical Record****Transcription 3 1-2 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 hrs.)

HIM0063L**Medical Record****Transcription****Applications 3 2-7 variable credits**

This course is the laboratory for HIM 0033. Transcriptions of reports and paraphrasing according to the content of dictation and terminology used in pathology and autopsies. Basic principles of word processing are practiced. A level of speed and accuracy consistent with employment standards is required. Prerequisite: HIM 0063. Special fee. (60-120 contact hrs.)

HIM0220**ICD-9-CM Coding 1****1 credit**

The organization and development of nomenclatures and classification systems. Introduction to the international classification of disease (ICD-9-CM), volumes 1, 2, and 3. The characteristics and conventions of ICD-9-CM. Special fee. (30 contact hrs.)

HIM0220L**ICD-9-CM Coding****Applications Laboratory 1 1 credit**

This course deals with the application of the basic principles, characteristics and conventions of ICD-9-CM. Special fee. (30 contact hrs.)

HIM0228**ICD-9-CM Coding 2****1.5 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 hrs.)

HIM0228C**ICD Coding Systems****5 credits**

This is a core International Classification Disease (ICD) coding course. Students will learn ICD coding systems using sample exercises and medical records to develop skill and accuracy in coding in various health care settings, including use of official coding guidelines and reporting requirements appropriate to the coding situation. Corequisite: HIM 0472. (150 contact hrs.)

HIM0228L**ICD-9-CM Coding****Applications Laboratory 2 2 credits**

This course focuses on analyzing and coding of diagnosis, procedures, and symptoms with ICD-9-CM. Application of principles of the Uniform Hospital Discharge Data Set (UHDDS), selection of the principle diagnosis, and sequencing. Prerequisite: HIM 0220L; corequisite: HIM 0228. Special fee. (60 contact hrs.)

HIM0230**ICD-9-CM Coding 3****1.5 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 hrs.)

HIM0230L**ICD-9-CM Coding****Applications 3 Laboratory 2 credits**

This course focuses on the application of the Prospective Payment Regulations for DRG validation assignment of the DRGs and procedures for ensuring data quality. Prerequisite: HIM 0228L; corequisite: HIM 0230. Special fee. (60 contact hrs.)

HIM0250**Current Procedural****Terminology****(CPT-4) Coding 1.5 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 fees. (45 contact hrs.)

HIM0250C**Ambulatory Care****Coding Systems****2 credits**

This is an introductory course on coding using HCPCS/CPT systems in the ambulatory care environment. Students will learn ambulatory care coding of all body systems, coding guidelines and reporting requirements, using sample exercises to develop skill and accuracy. Prerequisites: HIM 0472, 0228C. Corequisite: HIM 0285C. (60 contact hrs.)

HIM0260C**Physician Coding****2 credits**

This course will examine coding, data quality, and physician services billing. Students learn to read and interpret physician office documentation. Special emphasis is placed on assigning Evaluation and Management (E/M) codes, outpatient diagnostic coding guidelines, Current Procedural Terminology (CPT), Health Care Financing Administration Common Procedure Coding Systems (HCPCS) codes, and local codes. Prerequisite: HIM 0250; corequisites: HIM 0271, 0271L. Special fee. (60 contact hrs.)

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 hrs.)

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 hrs.)

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 0228, 0228L; corequisites: HIM 0230, 0230L. Special fee. (45 contact hrs.)

HIM0274C**Health Care Billing****and Reimbursement****4 credits**

This is a foundation course in healthcare reimbursement. Students will learn the reimbursement methods and concepts related to healthcare and prospective payment system including DRGs, APCs and ASC groups, patient billing and accounting software in claims processing, compliance, the role HIM plays in the Chargemaster maintenance and revenue cycle. Prerequisite: HIM 0650. (120 contact hrs.)

HIM0285C**Advanced Coding Systems****3 credits**

This is an advanced course in ICD, CPT and HCPCS coding systems. Students will learn guidelines and applications to more complex case studies and health records according to current ethical standards of practice, Inpatient and Outpatient Prospective Payment Systems, encoding software and grouper practice applications. Prerequisite: HIM 0228C. Corequisite: HIM 0250C. (90 contact hrs.)

HIM0434**Basic Principles of Disease****2 credits**

This is a basic course in human disease. The student will learn all body systems diseases and conditions, including etiology, clinical features, therapy and prognosis; basic pharmacology by body systems including antivirals, antibiotics, vaccines, immunizations, and chemotherapy agents. Prerequisite: HIM 0450. (60 contact hrs.)

HIM0450**Human Anatomy &****Physiology for Health****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 hrs.)

HIM0473**Medical Terminology****2.5 credits**

This is a foundation course in the structure of medical terms with emphasis on spelling, pronunciation and definition. Students will learn medical terms related to major disease processes diagnostic procedures, laboratory tests, abbreviations, drugs and treatment modalities. Corequisite: HIM 0228C. (75 contact hrs.)

HIM0615**Computer Operations
for Medical Applications 1 credit**

This course provides instruction in basic wordprocessing skills that are required to perform computer operations in health care facilities. Special fee. (30 contact hrs.)

HIM0650**eHealth Care
Delivery Systems 2 credits**

This is an introductory course in basic computer software skills. Students will learn about commonly available software tools used in healthcare, including introduction to encoding tools and computer assisted coding software, electronic health record processes and the unique computerized systems environment found in U.S. healthcare delivery systems. (60 contact hrs.)

HIM0817**Professional
Practice Experience 3.8 credits**

This course is an advanced coding/billing professional practice. Students will learn advanced coding and abstracting of actual inpatient and outpatient health records, with an emphasis on compliance and improving accuracy and productivity. Prerequisite: HIM 0228C, 0250C, 0285C. (120 contact hrs.)

Health Science

HSC0003**Introduction to Health Care 3 credits**

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

MAN0001**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 hrs.)

MAN0005**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 hrs.)

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 hrs.)

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 hrs.)

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 hrs.)

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 hrs.)

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 hrs.)

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 hrs.)

MNA0789**Presentation Skills Business 1 credit**

This course intends to make the participant aware of the specific steps necessary for making an oral or written communication. Special fee. (30 contact hrs.)

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, and hands-on application is the focus of the course. Special fee. (75 contact hrs.)

MKA0023**Effectiveness in Sales 1 credit**

This course helps participants identify strengths and weaknesses in sales effectiveness, analyzes one's sales approach with a selected customer, helps improve negotiating skills, and review suggestions from experts in salesmanship. Special fee. (30 contact hrs.)

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 hrs.)

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 hrs.)

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 that is of the major international marketing areas in the world. A step-by-step application of procedures is followed. Special fee. (75 contact hrs.)

MKA0243**Introduction to Foreign Trade 1 credit**

This course will serve as an overview of the international business environment and the institutions which affect business in the international arena. International economic, political, cultural, and trade business issues will be analyzed and international business theory will be introduced within a practical application format. A broad view of the international economy will be included as well as the importance and impact of economic interdependence. Special fee. (30 contact hrs.)

MKA0244**Gathering Facts for
International Marketing 1 credit**

This course will help participants identify profitable international markets and business areas, as well as new product lines. Sources of information for successful international marketing will be identified and discussed. Special fee. (30 contact hrs.)

MKA0245**Import/Export 1 1 credit**

This is a nuts and bolts class for the novice and the experienced importer or exporter. The student will learn how to start and maintain an import/export company, how to identify the market, find the supplies and customers, and buy and sell overseas. Special fee. (30 contact hrs.)

MKA0246**Import/Export 2****1 credit**

This is a continuation of Import/Export 1. Previous topics will be reviewed and will continue with these topics; buying and selling overseas, how to ship and document correctly, maintaining business records, what taxes are to be paid, and to make a profit. Special fee. (30 contact hrs.)

MKA0248**Marketing Strategies for Foreign Trade****1 credit**

This course will address the international trade globalization and the specific characteristics of different markets, not only from a strategic viewpoint but also from a product-specific perspective. Geo-demographic distribution of the "common markets" will also be discussed. Special fee. (30 contact hrs.)

MKA0516**Public Relations****2.5 credits**

The goal of Public Relations, is for students to gain valuable skills and insights related to the Public Relations professional, which will enable them to become more productive employees and entrepreneurs. Students will gain insight into business problem analysis, and will receive practical experience in both written and oral communication skills. Special fee. (75 contact hrs.)

MKA0623**Food Store Sanitation****1.5 credits**

This course provides food store personnel with a comprehensive understanding and basic knowledge needed to plan and implement a workable sanitation plan and to show how to keep it going while saving money too! Special fee. (45 contact hrs.)

MKA0624**Food Store Security****1 credit**

This course provides food store personnel with a comprehensive procedures and policies to follow to prevent employee theft, vendor theft, front end losses, shoplifting, robberies, and burglaries, thereby reducing figures and increasing store profits. Special fee. (30 contact hrs.)

MKA0625**Food Merchandising: Principles and Practices****1.5 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 hrs.)

MKA0626**Grocery Management Operations****1 credit**

This course provides practical instruction in essential management areas such as inventory management, merchandising, operating for profit, as well presenting a product breakdown of the grocery department such as dairy, frozen foods, general merchandise, health and beauty aids. Special fee. (30 contact hrs.)

Massage Therapy

MSS0156**Anatomy and Physiology for Massage Therapy****2.5 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 on those systems. Special fee. (75 contact hrs.)

MSS0215**History and Standards for Massage Therapy****1 credit**

This course examines the history and development of massage therapy, basic legal concepts related to health care employment, and legal requirements for practice as a Massage Therapist in the State of Florida. Special fee. (30 contact hrs.)

MSS0250**Introduction to Massage Therapy****1 credit**

This course focuses on the theories and principles of therapeutic massage. The Massage Therapist/Client Relationship, the effects on massage on the systems of the body, massage facilities, equipment/supplies, and furniture requirements will be discussed. Special fee. (30 contact hrs.)

MSS0250L**Introduction to Massage Therapy****Laboratory 6 credits**

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, trigger 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 hrs.)

MTB0311
Technical Mathematics 3 credits

This course focuses on the orientation and usage of the scientific calculator as used in all field 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 hrs.)

Medical Assisting

HIM0540
**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 hrs.)

MEA0204
**Theoretical Aspects
 of Clinical Skills** 1 credit

This course is designed to develop and further support students' knowledge and ability to organize and work efficiently and effectively in both performing and assisting with clinical procedures performed in medical offices. Emphasis will be on the role and responsibility of the Medical Assistant. (30 contact hrs.)

MEA0204L
**Application of
 Clinical Skills** 2 credits

This course is designed to develop and support students' ability to perform and assist in basic clinical skills. Emphasis will be on the role and responsibility of the medical assistant in performing sterile techniques and the use of organization and efficiency in performing and assisting with patient examination, sterile procedures, and diagnostic procedures and treatment performed in medical offices. Special fee. (60 contact hrs.)

MEA0231
**Anatomy and Physiology
 and Medical Terminology** 2.3 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 hrs.)

MEA0234
**Pathophysiology & Disease
 for Medical Assistants** 4 credits

This course is designed to introduce students to common diseases and medical condi-

tions which affect patients who present themselves to medical offices for diagnosis and treatment. Emphasis will be on the role and responsibility of the Medical Assistant in prevention, diagnosis, and treatment. (120 contact hrs.)

MEA0242
**Pharmacology
 for the Medical Assistant** 3 credits

This course is designed to introduce students to principles of pharmacology and provide a basis to comprehend the role and responsibility of Medical Assistants in administering medication. Emphasis will be placed on calculation of dosages, frequently used drugs, and classification of drugs as they relate to the body systems. Special fee. (90 contact hrs.)

MEA0254
**Physician Office
 Laboratory Procedures** 2 credits

Theoretical concepts of specimen collection and processing. This course focuses on the fundamentals of diagnostic tests, including urinalysis, basic office bacteriology, hematology, and blood chemistry. The principles of aseptic techniques, infection control, and safety procedures are discussed. Compliance with quality assurance practices are emphasized. (60 contact hrs.)

MEA0254L
**Physician Office
 Laboratory Procedure
 Applications** 2 credits

A clinical laboratory course designed for the Medical Assistant student to practice specimen collection, microscopy and urinalysis. Includes basic office bacteriology, hematology, and blood chemistry. The student will apply principles of aseptic techniques and infection control. Special fee. (60 contact hrs.)

MEA0258
**Radiology for the
 Medical Assistant** 3 credits

This course focuses on the basic principles of x-ray, film handling and processing, radiographic technique, and radiation biology. The course prepares the student to take the examination given by the Florida Department of Professional Regulations (DPR) for the Basic Radiographer License. Special fee. (90 contact hrs.)

MEA0322
**Office Management
 and Professional Issues
 for the Medical Assistant** 3 credits

Office management procedures, including planning and organization; financial and medical record keeping procedures; billing and collection; processing insurance claims using procedural and diagnostic coding. Legal and ethical responsibilities; credentialing and other professional issues of Medical Assisting. Special fee. (90 contact hrs.)

MEA0334C
**Medical Coding/Insurance
 Billing with Collections** 4 credits

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 hrs.)

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 hrs.)

MEA0540
**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 hrs.)

MEA0802
**Clinical Externship
 for the Medical Assistant** 3 credits

This course is designed to provide students with experiences in the practice of the clinical aspect of medical assisting. Students will be assigned to physician's office or clinics where they will provide direct patient care under the guidance of an experienced Medical Assistant. Special fee. (90 contact hrs.)

MEA0810
**Administrative Externship
 for the Medical Assistant** 3 credits

The student is assigned to a physician's office, clinic, laboratory, or other community health care facility. Emphasis is on integrating basic administrative skills demonstrated in previous courses. (90 contact hrs.)

MEA0832
**Diagnostic Externship
 in Medical Assistant** 3 credits

This course is designed to provide students with experiences in the diagnostic aspect of Medical Assisting. Students will be assigned to physician's office or clinics where they will perform diagnostic clinical laboratory procedures, electrocardiographic and basic x-ray procedures under the guidance of an experienced Medical Assistant. Special fee. (90 contact hrs.)

Medical Laboratory Technology

MLT0041

Phlebotomy Theory 0.5 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 hrs.)

MLT0048

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 hrs.)

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 hrs.)

Office Technology

OCA0301

Beginning Word Processing 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 hrs.)

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 hrs.)

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 hrs.)

OTA0102

Intermediate Keyboarding 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 hrs.)

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 hrs.)

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 hrs.)

OTA0301

Oral Business Communication 0-1 variable credits

This course provides training for effective listening, verbal and non-verbal communications 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 hrs.)

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 hrs.)

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 hrs.)

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 hrs.)

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 hrs.)

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 Fields. The differences and similarities in litigation/court process as it relates to criminal procedures, estate planning, real estate and business organizations will be discussed. Special fee. (30 contact hrs.)

OTA0753

Legal Secretary Preparation 1 credit

This course is designed to introduce the federal and Florida course 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 hrs.)

OTA0905

Open Office Technology Lab 1 credit

This course is intended to provide additional time-on task for students who are attempting to fulfill the requirements of the Wordprocessing or Secretarial Vocational Credit Certificate Programs. The course is individualized to accommodate itself to each student's needs. Special fee. (30 contact hrs.)

OTA0906

Open Wordprocessing 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 hrs.)

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 hrs.)

Pharmacy Technician

PTN0003

Introduction to Pharmacy Practice & Medical Terminology 3 credits
This course is an orientation to the overall functions and services of a hospital pharmacy. Students will learn medical abbreviations, terminology, chemical symbols, formulas, and incompatibilities. Prerequisite: HSC 0003; corequisite: PTN 0006. (90 contact hrs.)

PTN0004

Pharmacy Practitioner Applications 3 credits
This course focuses on pharmacy practitioner applications. Students will learn to develop skills relating to the specific, technical, manipulative and clerical tasks involved with the preparation and distribution of medications under the supervision of Licensed Pharmacists. Prerequisite: HSC 0003; corequisite: PTN 0021. Special fee. (90 contact hrs.)

PTN0006

Pharmacy Calculations 3 credits
This is a course in Pharmacy Calculations. Students will learn to define systems of measurement, convert from one system to another, and calculate pharmacology problems. Prerequisite: HSC 0003; corequisite: PTN 0003. (90 contact hrs.)

PTN0021

Drug Classifications 3 credits
This course covers the major classifications of pharmaceuticals, standards for quality and purity of drugs, and authoritative information on dosage and administration. Students will learn about poisons, placebos, and the sources from which medications are produced. Prerequisites: HSC 0003, PTN 0003, 0006; corequisite: PTN 0004. (90 contact hrs.)

PTN0041

Pharmacy Technician Hospital Field Experience 10 credits
This course covers clinical hospital training to develop the student's knowledge and skills on the job. Students will learn how to properly prepare doses of medications and intravenous admixtures. Prerequisites: HSC 0003, PTN 0003, 0004, 0006, 0021; corequisite: PTN 0049. (300 contact hrs.)

PTN0049

Pharmacy Technician Retail Store Field Experience 10 credits
This course covers the clinical field experiences in a retail establishment. Students will learn about pharmaceutical chemistry, proper medication, and how to deliver medications correctly. Prerequisites: HSC 0003, PTN 0003, 0004, 0006, 0021; corequisite: PTN 0041. (300 contact hrs.)

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 parental nutrition therapy. Special fee. (75 contact hrs.)

Photography

PGY0296

Electronic Workshop 4 credits
This course is designed for the experienced electronic publisher, graphic designer of graphic arts person who wishes to integrate black and white and color photography into their page layouts or paint programs. It will provide the basics of desktop scanning, retouching and color correcting. Special fee. (120 contact hrs.)

Practical Nursing

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 0003. Special fee. (75 contact hrs.)

PRN0003C

Practical Nursing 1 - Fundamentals 9 credits
This course assists the Practical Nursing student to develop fundamental knowledge and technical skills 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 hrs.)

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 tis-

sue, cells, metabolism, and homeostatic processes. Prerequisites: PRN 0001C. Special fee. (60 contact hrs.)

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 hrs.)

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, sub-acute, and long-term care settings. Special fee. (360 contact hrs.)

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 hrs.)

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 hrs.)

Real Estate

REE0032

Principles & 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 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 hrs.)

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 prorating for closing statements. Special fee. (45 contact hrs.)

REE0044**Real Estate Sales****2.1 credits**

Principles & Practices 1 is the beginning course for a student wishing to enter the Real Estate business and receive a Real Estate License. This is a survey course that looks into the legal relationship between salesman and client, salesman and customer, and salesman and broker. It is a study of many of the mechanical principles of the Real Estate business such as deeds, surveys, financing and appraising. Special fee. (63 contact hrs.)

REE0183**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 hrs.)

REE0184**Certified General****Appraisal Course 3****2 credits**

This course, subsequent to successful completion of the two Real Estate Residential Appraiser courses, leads to a certification as a Certified General Appraiser by FREC. Commercial site and evaluation and capitalization techniques are covered. Special fee. (60 contact hrs.)

REE0272**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 hrs.)

REE0301**Real Estate****Post-Licensing Brokers 2****1 credit**

This course is the investment portion (part 2) of the State required Post-Licensing for Brokers. The objective of the course is to provide the licensee with advanced knowledge of Real Estate investment and finance. Prerequisite: REE 0801. Special fee. (30 contact hrs.)

REE0801**Real Estate****Post-Licensing Brokers 1****1 credit**

This is the management portion (Part 1) of the State required Post-Licensing course for Real Estate Brokers. The objective is to provide the licensed Brokers with advanced knowledge of the management and operation of a brokerage office. Special fee. (30 contact hrs.)

REE0802**Broker Estate 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 hrs.)

Risk Management and Insurance

RMI0003**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 hrs.)

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 hrs.)

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 hrs.)

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 hrs.)

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 hrs.)

RMI0234**Investment Vehicles****1 credit**

This course is affiliated with the American College of Life Insurance at Bryn Mawr. Topics include the role and scope of investments, security markets, investment strategies, financial statements, common stock analysis, bonds, options, futures, and tax considerations. Special fee. (30 contact hrs.)

RMI0235**Wealth Accumulation****Planning****1 credit**

This course covers personal tax principles and planning, investing for tax advantages, various investment vehicles, and tactical and strategic tax planning for wealth accumulation. Special fee. (30 contact hrs.)

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. (240 contact hrs.)

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 hrs.)

Student Life Skills

SLS0200**Increasing****Personal Effectiveness****1 credit**

This course reviews key strategies for personal growth, analyzes personal strengths and weaknesses, identifies the personal goal and motivated the participant towards them, and demonstrate techniques for improving interpersonal relationships. Special fee. (30 contact hrs.)

SLS0228**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 hrs.)

SLS0270**Practical Leadership Skills****1 credit**

This course employs a small-group approach to improve leadership skills of individuals training for supervisory positions. Students will improve in problem identification and resolution, planning, and effective methods of communication with subordinates and co-workers. Special fee. (30 contact hrs.)

SLS0306**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 hrs.)

SLS0307**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 hrs.)

SLS0341**Employability Skills 1 credit**

This course teaches the student the skills necessary to conduct a successful job search and to be successful in a job requiring positive human relation skills. Clothing, behavior, personal presentation and interpersonal relations are covered. Special fee. (30 contact hrs.)

Surveying

SUR0001**Construction Survey 4 credits**

This course focuses on the practice of surveying as related to the Building and Construction industry. This course includes a combination of classroom and practical field problems with the tape, level and transit. Lab time is required. Special fee. (120 contact hrs.)

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 measurements of distance, use of the compass, sextant, transit traverse, and basic mapping. Field and laboratory practice are required. Special fee. (120 contact hrs.)

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 hrs.)

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 hrs.)

HMV0031**Introduction to the Travel Industry 1 3 credits**

The objective of this is to create an understanding of the domestic travel industry. Manual and computerized reservation procedures for airline reservations. A minimum of 30 hours hands-on in the computer lab is required. Special fee. (90 contact hrs.)

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 hrs.)

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 hrs.)

HMV0642**Convention and Meeting Planning 1 credit**

Meeting and convention planners specialize in business conferences. Students will learn the skills necessary to plan from 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 hrs.)

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 hrs.)

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 hrs.)

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 hrs.)

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 hrs.)

HMV0722**Sales in the Travel Industry 2.5 credits**

A concentration on the behavioral relationships necessary for the successful closing of a sale. Covers personal appearance, verbal skills, situational factors, telephone competencies, group presentation capabilities, customer service. Special fee. (75 contact hrs.)

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 hrs.)

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 hrs.)

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 hrs.)

HMV0950**Communications for****the Travel Professional****2 credits**

Communications for the Travel professional will help students develop their writing and speaking skills so that they can effectively and confidently communicate on the job. Special fee. (60 contact hrs.)

Vocational Preparatory

VPI0111**Vocational Preparatory****Reading****1-6 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 hrs.)

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 in a computer is prescribed to enable the student to test out at an appropriate level to be successful in a Vocational program. (30-180 contact hrs.)

VPI0311**Vocational Preparatory****English****1-6 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 hrs.)

Selected Studies

###947**Co-Op Work Experience 2****3 credits**

This course is designed to continue training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisites: Co-Op Department approval and completion of 0948 Co-Op Work Experience. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the 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: it may be varied each term according to faculty and student planning. This offering is numbered 0991, with prefix of the subject area, in the department or discipline of study: Credits only apply to a Vocational Credit certificate. Prerequisite: Permission of the instructor and department chairperson. (30-150 contact hrs.)

###999**Diagnostic Medical Externship****3 credits**

This course provides experience in a variety of vocational disciplines. The externship will be provided in an approved establishment within the identified discipline area. May be repeated for credit. (90 contact hrs.)



Educator Preparation Institute

EPI0001

Classroom Management 3 credits

This segment prepares the participant to generate and maintain a record keeping system, establish classroom policies and procedures, plan and conduct lessons in a variety of learning environments, create objective-based lesson plans, develop effective communication skills, create and administer various forms of assessment, integrate Sunshine State Standards into lesson development and apply the code of ethics and school law. (3 hour 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 assess-

ment, 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 hour 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 hour lecture)

EPI0004

The Teaching & 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 hour lecture)

EPI0010

Foundations of Research-Based Practices in Reading 3 credits

This module provides substantive knowledge of language structure and function and cognition of phonemic awareness, phonics, fluency, vocabulary, and comprehension. 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 hour 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 hour 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 hour 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 hour lecture)

EPI0945

Field Experience 1 credit

Participants will complete a series of experiences designed to give prospective teachers a perspective on effective learning environments, educational strategies, and classroom management principles. Cohorts will meet together to discuss these experiences and to relate them to their observations of students as well as student behaviors and interactions in schools. Corequisite: EPI 0030. (1 hour lecture)



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HELEN AGUIRRE FERRÉ is an award-winning, bilingual journalist in both print and broadcast media. With more than two decades of reporting, she is the Opinion Page Editor of *Diario Las Américas*, an independent, family-owned Spanish-language newspaper founded in Miami in 1953. Her commentary also extends to a Sunday column in *Diario Las Américas*, covering current, national and international affairs.

In the broadcast arena, Aguirre Ferré is the moderator of the weekly WPBT public affairs series *Issues*, reaching television audiences from the Treasure Coast to the Florida Keys. She also co-hosts "Yo Cuento" for Radio Cadena Univision and provides regular political analysis on WQBA radio's highest-rated afternoon show, "Prohibido Callarse."

Committed to community service, particularly in education, she is the first woman to chair the Board of Trustees of Miami Dade College, the largest community college in the country, and serves on the board of directors of the Association of Governing Boards of Universities and Colleges (AGB) in the United States, and the Council of Board Chairs of the AGB. Additionally, she is a member of the board of WPBT Channel 2, a PBS affiliate in Miami; a member of the Florida Chapter of the International Women's Forum; a national member of the Council on Foreign Relations; a director of the Inter American Democracy Institute; an advisory board member of the New Hampshire Institute of Politics, the Angels of Mercy, Mercy Hospital, The Mater Center, and the American Nicaraguan Foundation.

Through all her professional and community engagements, Aguirre Ferré has received many awards, including: Alumni of Distinction in Journalism Barry University 2009; Honorary Doctorate Degree in Journalism from Saint Anselm College 2008; the Chairman's Award of the South Florida Chapter of the American Red Cross 2007; Women's History Coalition Women of Impact Award 2007; Award of Distinction American Nicaraguan Foundation 2006; Distinguished Woman Professional Cuban Woman's Club 2006; CAMACOL Woman Business Professional 2006; Distinguished Alumni Archbishop Curley Notre Dame Academy 2005; Barry University Outstanding Alumni of the Year Award 2000; Dynamic Woman's Award American Cancer Society; and is named on the Professionals of Hispanic Media 100 list.

Aguirre Ferré co-founded Operation Saving Lives, which was a humanitarian task force responsible for sending money, medicine, food and clothing to victims of Hurricane Mitch in Central America. She was also appointed to the Florida State Committee of Higher Education Access Task Force in 2005 and the Florida Energy 2020 Commission, among others.

Aguirre Ferré holds a Bachelor of Arts in Political Science from Barry University and a Master's in Interamerican Studies from the University of Miami, Florida. She is married and has three children.

ARMANDO J. BUCELO JR. is an attorney in private practice. His firm, the Law Offices of Armando J. Bucelo, Jr., has been based in the Coral Gables area since 1979.

For more than twenty years, he has served as special counsel to the Code Enforcement Board of the City of Miami, and special advisor to the City of Miami.

Bucelo has served as national chairman for the Cuban-American National Republican Senatorial Committee, and committeeman for the Republican Party. He was appointed by President George W. Bush to serve as chairman of the Board of Directors of the Securities Investor Protection Corporation, one of the administration's highest appointments made to a Hispanic. He was also appointed as a member of the Board of Directors of the National Housing Development Corporation, one of the most prestigious national institutions dealing with affordable housing. Under President Bush, he was the first Hispanic and first Floridian selected as a member of the Board of Directors of the Federal Home Loan Mortgage Corporation (Freddie Mac).

He has been involved in a myriad of community activities, including serving on the Board of Directors of the YMCA International, and the American Red Cross. Bucelo is a past President of both the Downtown Miami Business Association and the Cuban-American Bar Association.

He has been honored as one of the 100 Most Influential Hispanics on numerous occasions and has received proclamations from the U.S. House and Senate, the Florida House and Senate, and the cities of Coral Gables, Miami, Hialeah, West Miami, Sweetwater, and Miami-Dade County. Bucelo earned his Juris Doctor and Bachelor of Arts degrees from the University of Miami and is an alumnus of Miami Dade College.

MIKKI CANTON has earned widespread respect in legal, business and political circles as an elite attorney and a guiding force in local relations with China.

Canton currently chairs the China and Asia Committees at the World Trade Center of Miami. She is also the founding co-chair of The Florida Bar International Law China Committee. In her capacity as Miami Dade College trustee, she was an enthusiastic proponent of bringing the nascent Confucius Institute to the College.

Following 20 years with Holland & Knight, where she was practice area leader in public law, Canton became the Miami

managing partner with the law firm Gunster Yoakley & Stewart. At Gunster, she honed a keen interest in China's international investment strategies, with a specific focus on Latin America.

Canton was appointed to consecutive terms with the Florida Commission on Ethics by Republican Florida Governor Bob Martinez and Democratic Florida Governor Lawton Chiles.

Canton is also a past member of the Harvard University John F. Kennedy School of Government's Women's Leadership Board and of the International Board of the University of Chicago Harris School of Public Policy Studies.

Canton recently founded CIVILITY USA as a vehicle for restoring manners, mutual respect, and empathy in our public discourse.

In response to her work, Canton received the American Jewish Committee's prestigious Learned Hand Award in 2005, given by the national civil rights organization to outstanding leaders in the legal profession.

Canton lives in Coral Gables with her husband of 39 years and has three children. She graduated with a bachelor's from Barry University prior to earning a master's degree in psychology from Florida International University. Canton is also an honors graduate of St. Thomas University School of Law.

ROBERT H. FERNANDEZ is an attorney with the highly regarded boutique law firm of Infante Zumpano Hudson & Miloch, specializing in the areas of complex business litigation, government bid-protest disputes and election law.

He is the former deputy general counsel for the Executive Office of the Governor, serving as advisor to Florida Governor Jeb Bush and the state General Counsel.

Among his many professional activities, Fernandez was a past regional president for Florida for the Hispanic National Bar Association. He is chair of the Board of Directors of the Family Resource Center, a non-profit that provides a variety of support services to children who have been abused or neglected and are currently in the Miami-Dade County's foster care system.

He is a graduate of Columbia University and New York University School of Law, where he was an editor of the *Journal of International Law and Politics*.

BENJAMIN LEON III is president and COO of Leon Medical Centers, a managed health care system offering superior comprehensive services to the residents of Miami-Dade County.

Leon has served at the helm of the organization since 1996, guiding the delivery of

primary care, outpatient services and various specialty services to Medicare members. He began his career as a customer service representative for Clínica Cubana, which his family opened in the 1960s to satisfy the health care needs of South Florida's growing Hispanic population.

Leon serves on the board of the Latin American Chamber of Commerce (CAMACOL) and is involved in numerous philanthropic organizations, such as the American Diabetes Association and the American Cancer Society.

He holds a bachelor's degree in organizational leadership from St. Thomas University.

PETER W. ROULHAC is the former CEO of the Orange Bowl Foundation, who has sought to affect positive change for the youth of our community through philanthropy, athletics and academics.

Prior to assuming his role at the Orange Bowl Foundation, he was vice president and senior director of Community Development for Wachovia National Bank for Miami-Dade and Monroe Counties, where he oversaw business development and the bank's Community Reinvestment Program. He also worked extensively to ensure bank products and services were provided in low- and moderate-income communities.

Previously he administered equal opportunity, affirmative action and human resource policies for Southeast Bank and also worked for the U.S. Treasury Department, monitoring compliance of banks, and savings and loan associations, with equal opportunity and affirmative action programs.

Additionally, he is a past chair of the Greater Miami Chamber of Commerce.

He holds a Bachelor of Arts and Master of Arts in Political Science from Fisk University and the University of Illinois respectively.

MARIELENA A. VILLAMIL is the CEO, president and co-founder of the Washington Economics Group, Inc. (WEG), an economic, financial and educational consulting firm. She has led this well-respected organization since 1993 and has been an esteemed contributor to the South Florida community.

Prior to joining WEG, she worked for 17 years as a professor and associate dean at Miami Dade College. She has significant experience in governmental relations and in the education and training of multicultural and multilingual workforces.

Her community involvement is far reaching. Since June 2009, she has served as the chairman of the Board of the American Red Cross of Greater Miami and Keys, who awarded her the first Dr. Mario Villarreal International Leadership Award.

Presently, she serves on the South Florida Advisory Board of the Hispanic Scholarship Fund, on the National Board of the Cuban American National Council, and on the Board of the Coral Gables Community Foundation.

She also serves as the chair of both the Advisory Board of the South Florida Campus of the Sistema Universitario Ana G. Mendez and the South Florida Humanitarian Network for Cuba.

Villamil holds a Bachelor of Arts in Spanish and English from St. Mary's Dominican College and a Master of Arts in Spanish from Middlebury College.

An American by choice, **DR. EDUARDO PADRÓN** has served as president of Miami Dade College (MDC) since 1995. In 2009, he was named one of "The 10 Best College Presidents" in America by *TIME* magazine and "Floridian of the Year" by Florida Trend magazine. During his career, he has been selected to serve on posts of national prominence by five American presidents. Dr. Padrón's pace-setting work at MDC has been hailed as a model of innovation in higher education. He is credited with engineering a culture of success that has produced impressive results in student access, retention, graduation and overall achievement. MDC enrolls and graduates more minorities than any other institution in the country, including the largest numbers of Hispanics and African-Americans.

Dr. Padrón's energetic leadership extends to many of the nation's leading organizations.

He was recently appointed to the Advisory Commission of the National Museum of the American Latino and serves on the boards of the Association of American Colleges and Universities; American Council on Education; Carnegie Foundation for the Advancement of Teaching; Business/Higher Education Forum; League for Innovation in the Community College; RC 2020; the Collins Center for Public Policy; and the International Association of University Presidents.

Under Dr. Padrón's direction, MDC has received numerous accolades, including recent honors from the College Board, the *Chronicle of Higher Education*, the Florida Department of Education and Florida Campus Compact. Dr. Padrón holds a doctorate in economics from the University of Florida and is an MDC alumnus.



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Academic Definitions

The following are definitions of terms with which the reader may not be familiar:

Academic Year: Beginning of the fall term to the end of the summer term; approximately from the end of August to the end of the following July.

Advanced Technical Certificate: These are state-approved advanced specialized programs designed for students who already have an Associate in Science degree and wish to supplement their degree.

Basic Skills Assessment: A test that enables the College to identify the student's academic strengths and weaknesses in reading, writing, and math skills

to be used to provide advisement and placement in courses. See Computerized Placement Test (CPT).

College Credit: A unit of work in a subject, generally equivalent to one hour of class or two hours of laboratory a week for a regular sixteen (16) week term. Thus, a three-credit class meets for three class hours a week or two class and two laboratory hours. There is some variance in this rule for laboratory, clinical, and studio courses.

College Credit Certificate Programs: These are state-approved programs that are an integral part of an Associate in Science 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 prep 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.

Corequisite: A course, which must be taken simultaneously with another course.

Curriculum: A specific program of study comprised of courses leading to a degree or certificate.

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 on page 40.

Supplemental Vocational Education Courses: These courses are for students currently or previously employed in a job category where skill upgrading is required to maintain current employment or to advance within their career field.

TABE: Test of Adult Basic Education administered to students enrolled in Career Technical Education Programs.

Term: A subdivision of the academic year, i.e., fall, spring, summer A and summer B terms.

Major term: fall and spring, approximately sixteen (16) weeks each.

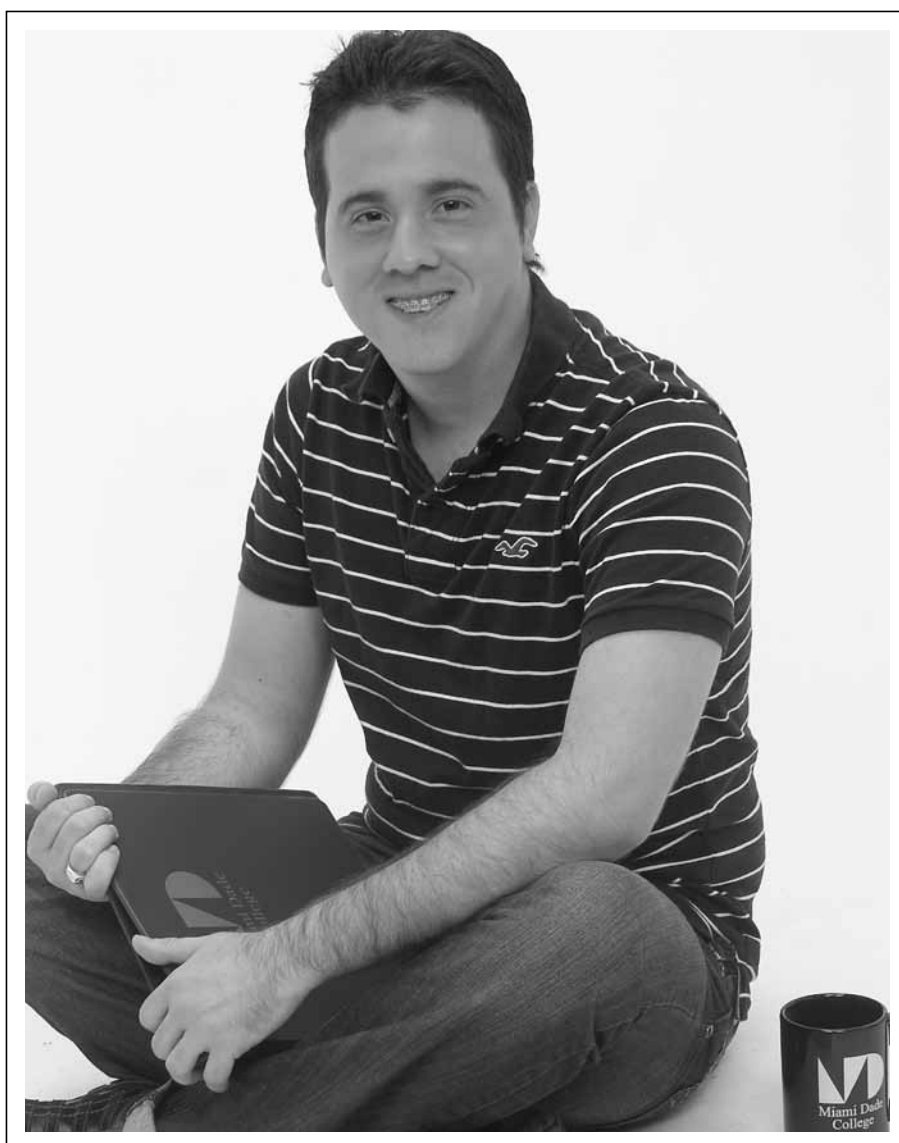
Short Term: summer A and summer B, *six (6) weeks each. Courses meet additional contact hours per week during the summer A/summer B terms.

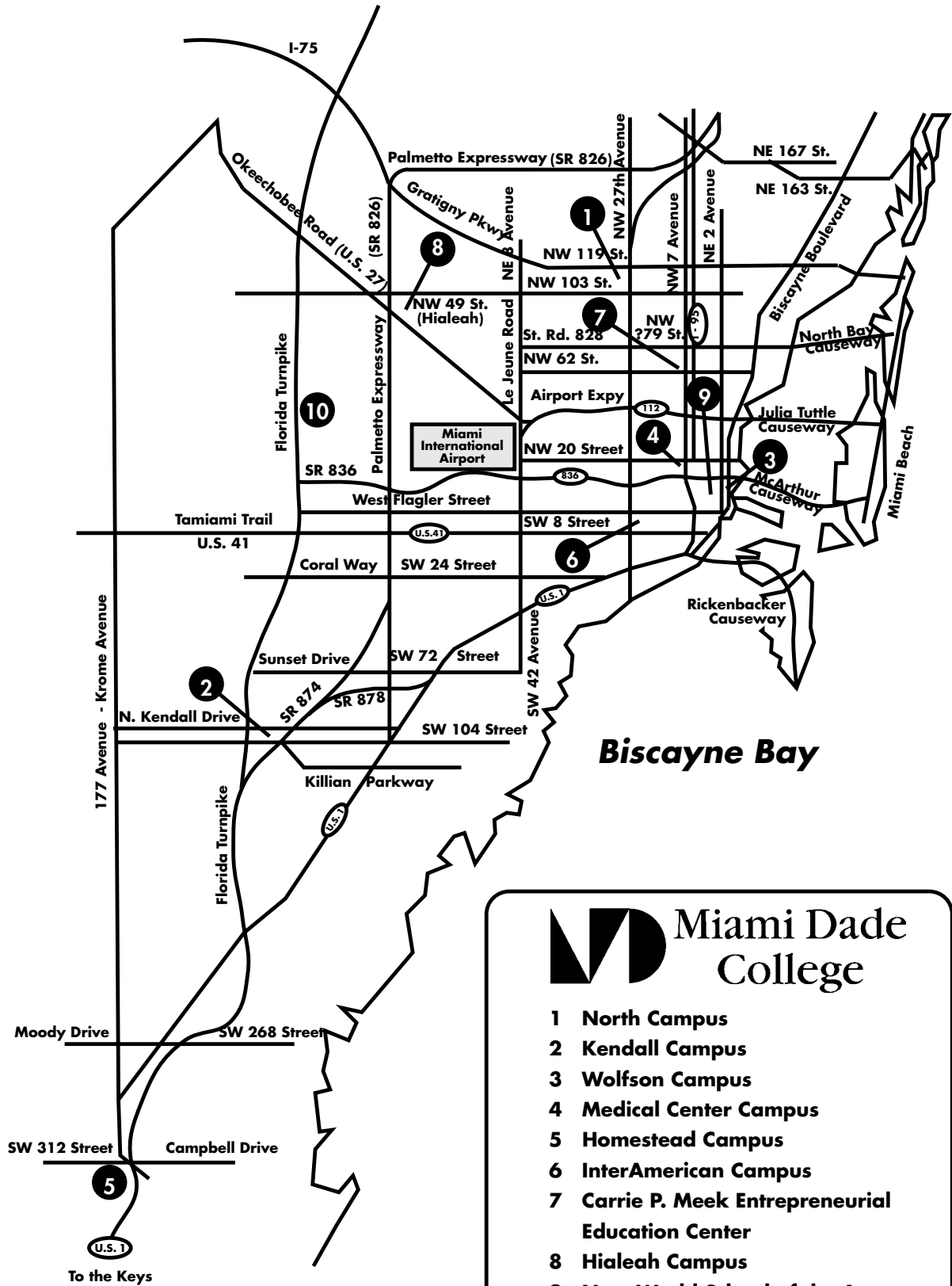
* Note: Some courses are scheduled for the combined summer A/summer B term of 12 weeks.

Transcript: A certified copy of the student's academic record.

Vocational Credit: A unit of work in a subject based on 30 contact hours of classroom participation (or equivalent for work experience).

Career Technical Education Programs (CTE): These programs are defined by the state of Florida and consist of courses valued in vocational credits. Career Technical Education programs are designed to lead to immediate job entry upon completion. Those who complete a Career Technical Education program receive a Career Certificate and are entitled to attend graduation exercises.





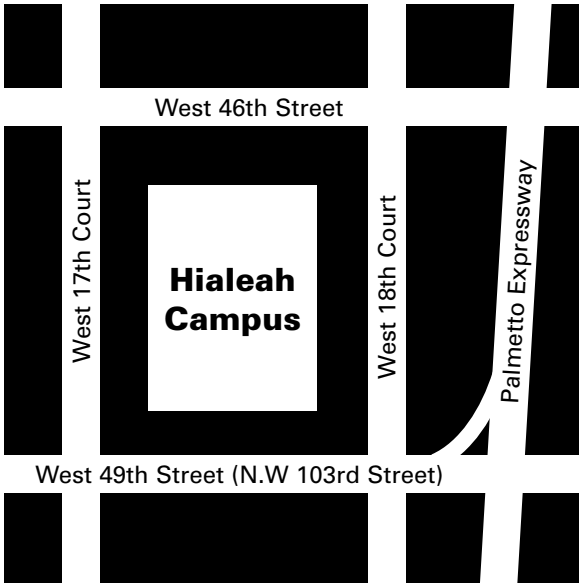


Miami Dade College

- 1 North Campus**
- 2 Kendall Campus**
- 3 Wolfson Campus**
- 4 Medical 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

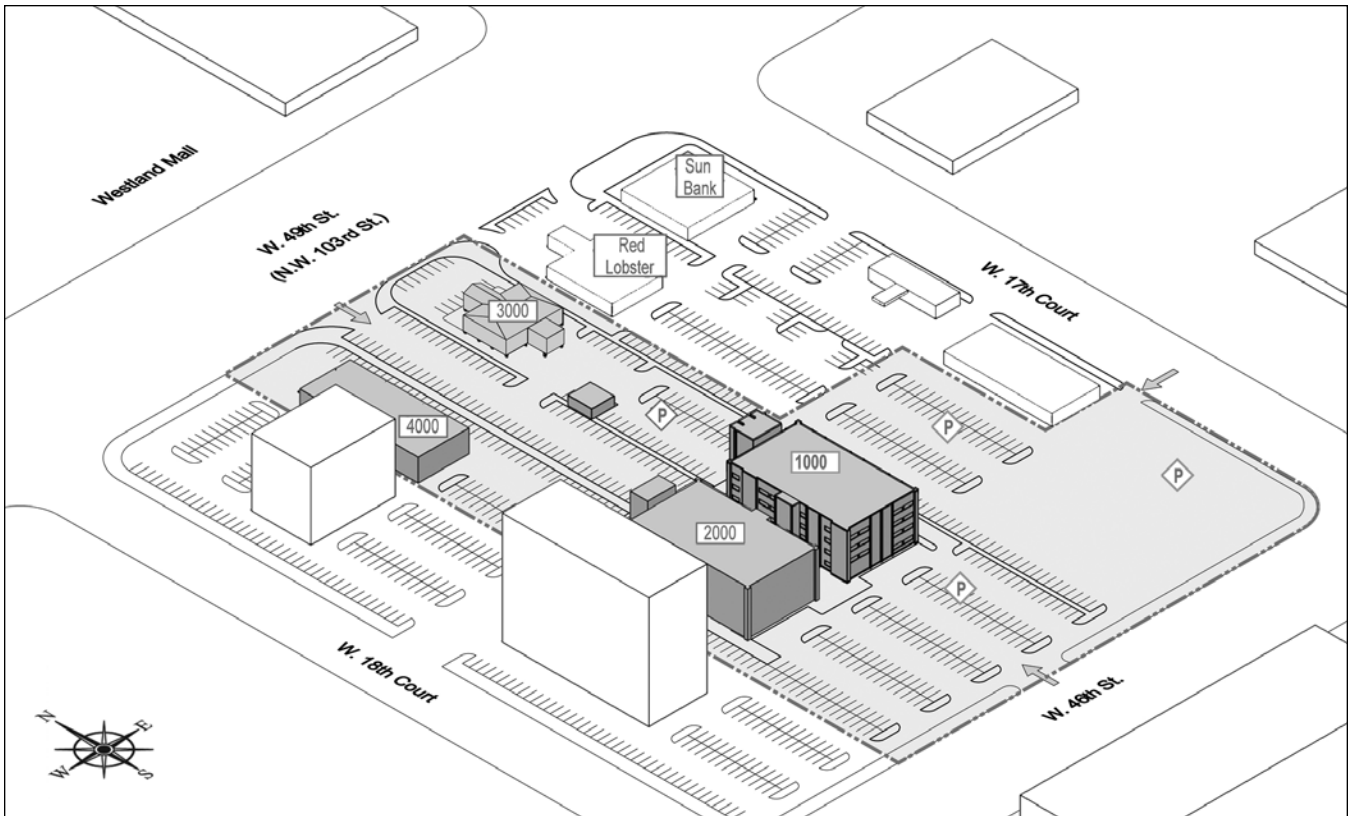


Important Phone Numbers

- 305-237-8775 • Admissions Information
- 305-237-8775 • Registration Information
- 305-237-8794 • Academic Advisement Information
- 305-237-8773 • Financial Aid Information
- 305-237-8701 • Campus Security
- 305-237-8791 • Testing Information

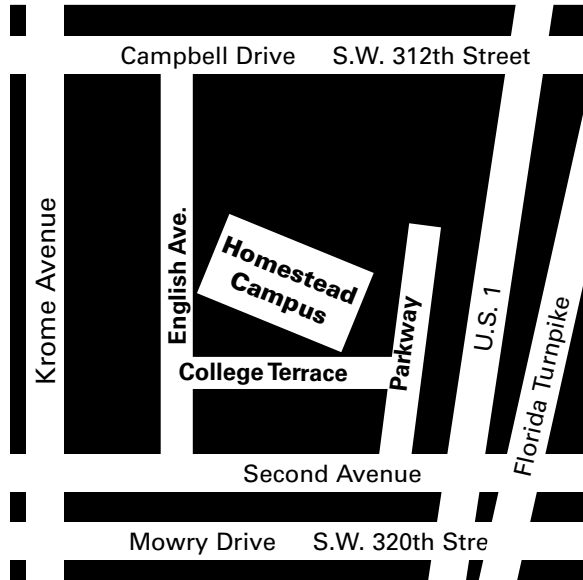
Key to Campus Locations

- 1000 Classrooms Building
- 2000 Hialeah Building 2
- 3000 Student Services Building
- 4000 Administration Building
- P Parking



Homestead Campus

500 College Terrace
Homestead, FL 33030

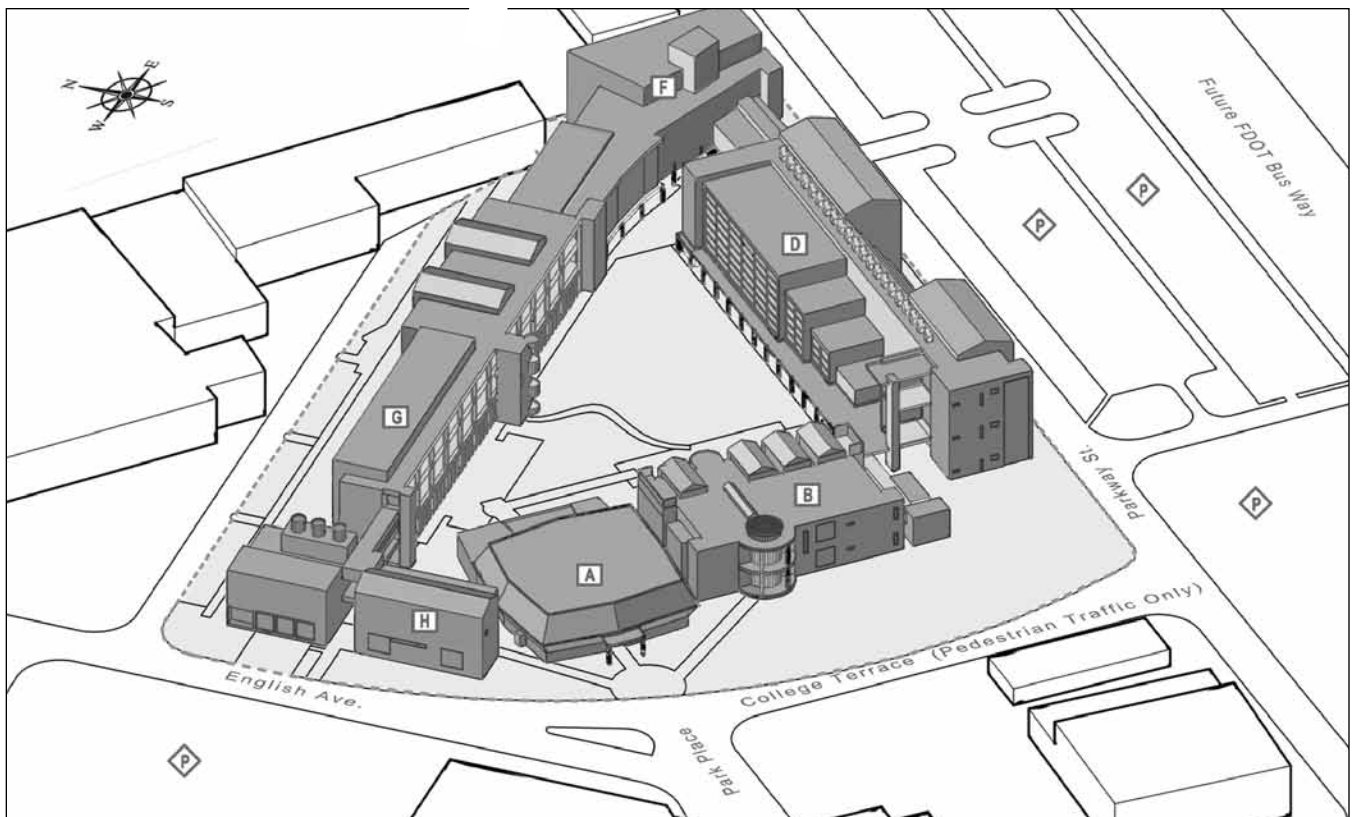


Important Phone Numbers

- 305-237-5555 • Admissions Information
- 305-237-5555 • Registration Information
- 305-237-5046 • Academic Advisement Information
- 305-237-5024 • Financial Aid Information
- 305-237-5100 • Campus Security
- 305-237-5105 • Testing Information

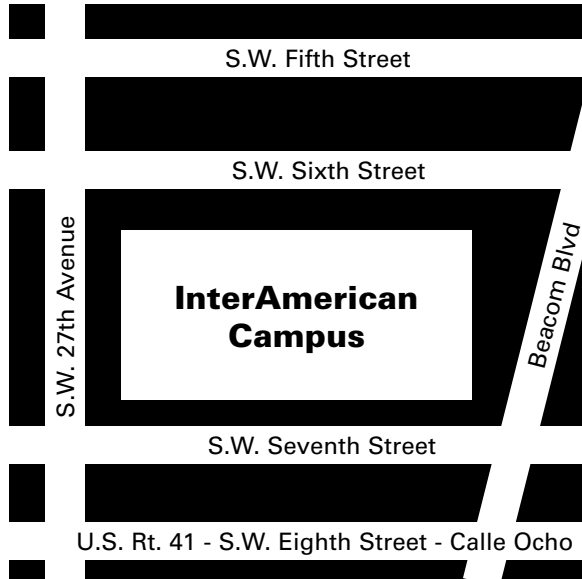
Key to Campus Locations

- A Registration and Student Services
- B Faculty/Administration
- D Information and Technology Center
- F Aviation Training Complex
- G Classrooms/Laboratories
- H Central Physical Plant
- P Visitors' Parking on Parkway Street



InterAmerican Campus

627 S.W. 27th Ave.
Miami, FL 33135

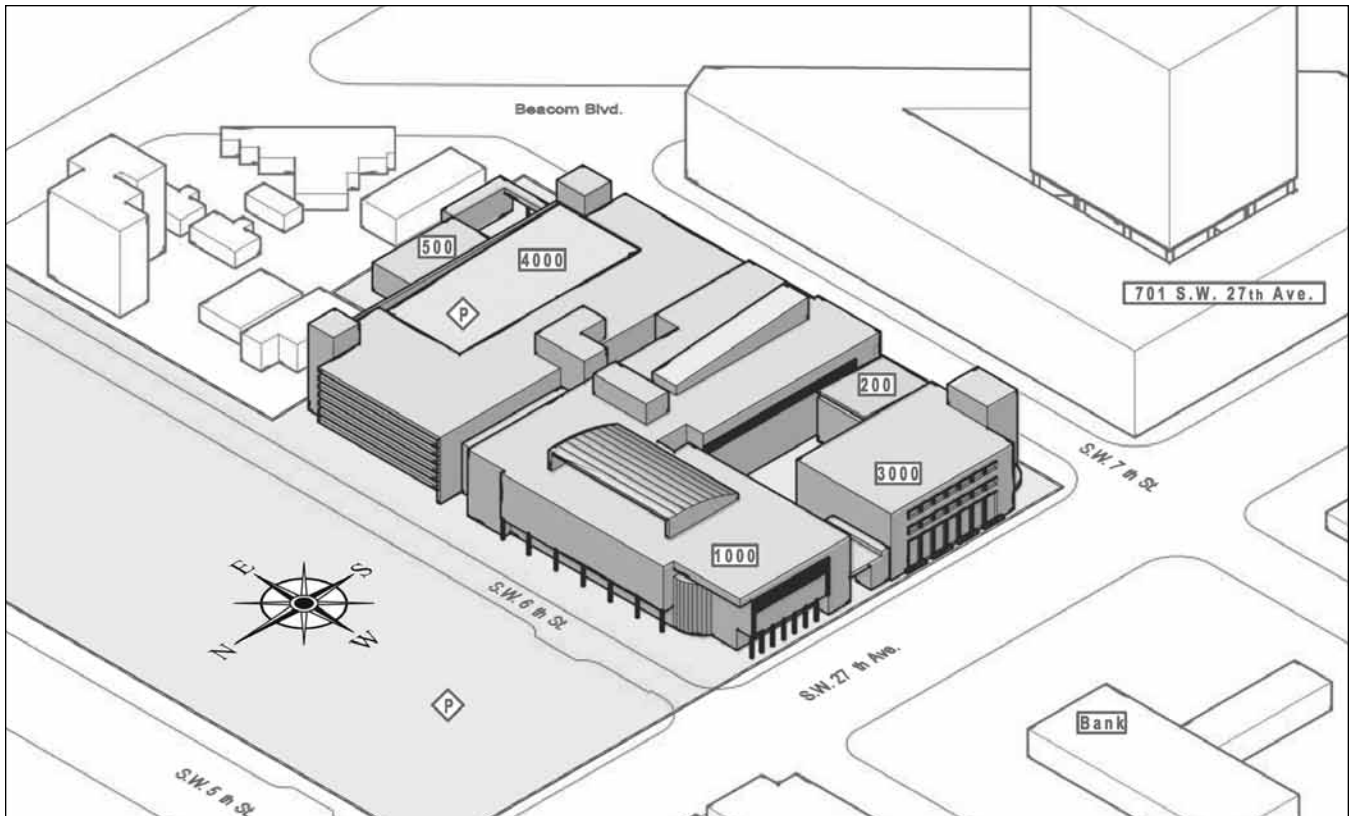


Important Phone Numbers

- 305-237-6052 • Admissions Information
- 305-237-6052 • Registration Information
- 305-237-6133 • Academic Advisement Information
- 305-237-6040 • Financial Aid Information
- 305-237-6100 • Campus Public Safety
- 305-237-6041 • Testing Information
- 305-237-6000 • Campus Main Number
- 305-237-6045 • Student Services Information

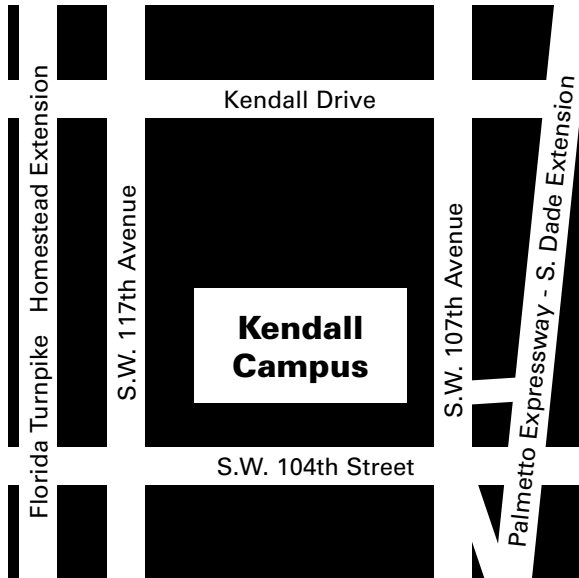
Key to Campus Locations

- 1000 Administrative & Faculty Offices, Classrooms, Student Services, Computer Courtyard and Other Labs
- 200 Instructional Building
- 3000 Classrooms and Laboratories
- 4000 Parking Structure
- 500 Service Building
- P Public Parking



Kendall Campus

11011 S.W. 104th St.
Miami, FL 33176

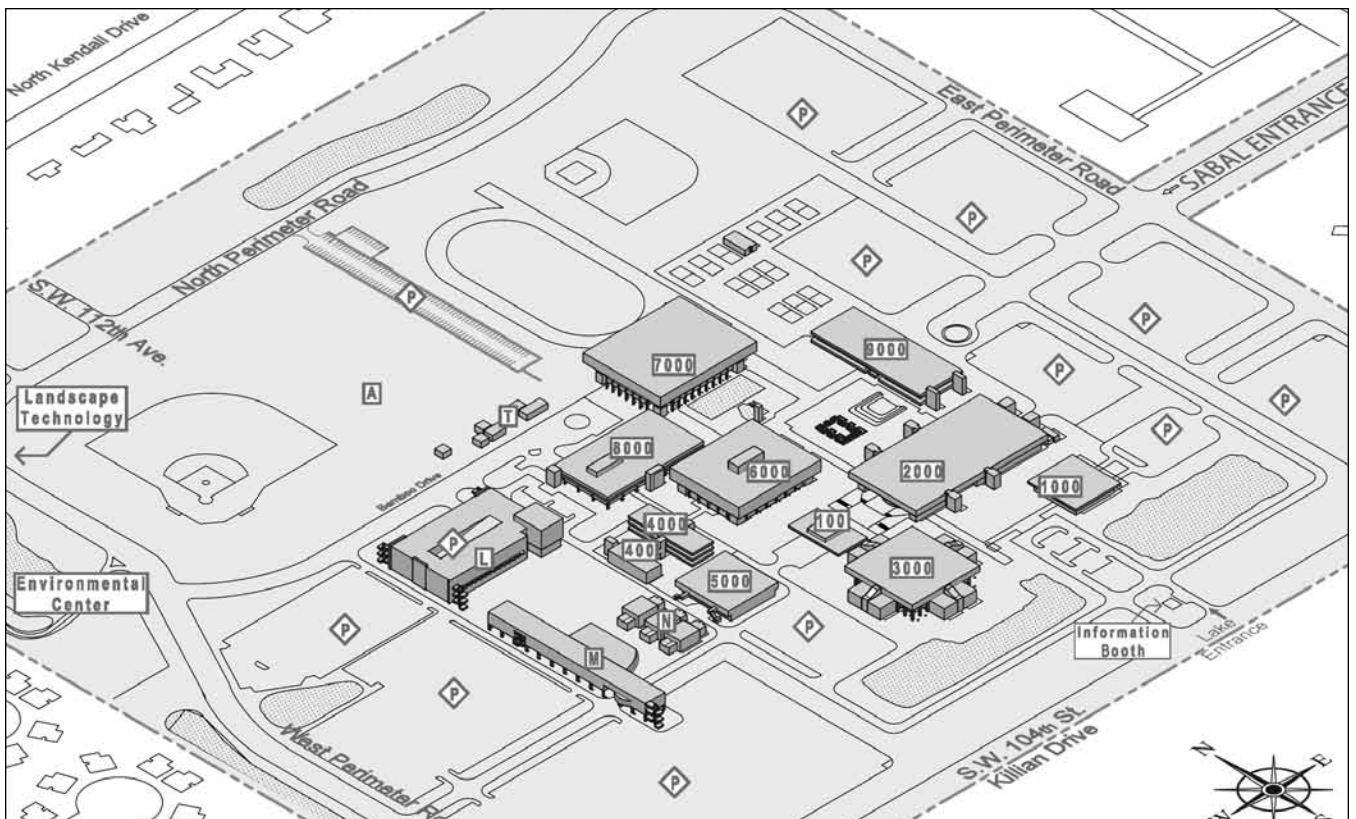


Important Phone Numbers

- 305-237-2222 • Admissions Information
- 305-237-2222 • Registration Information
- 305-237-2125 • Academic Advisement Information
- 305-237-2325 • Financial Aid Information
- 305-237-2100 • Campus Security
- 305-237-2341 • Testing Information
- 305-237-2161 • Community Education

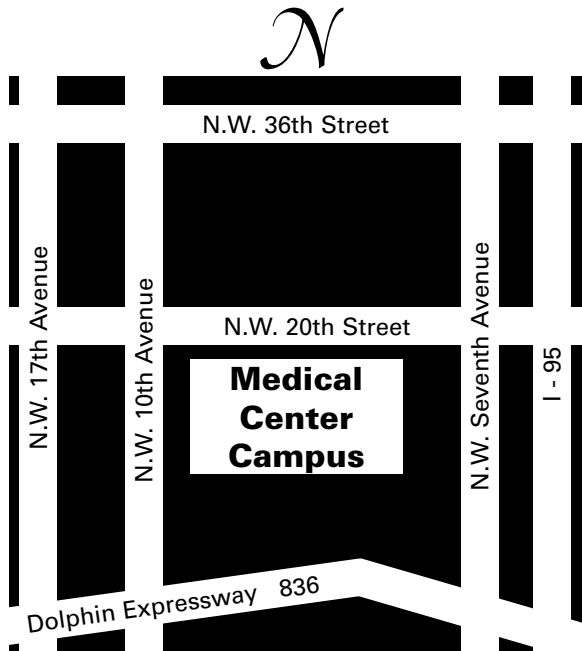
Key to Campus Locations

- 100 Student Life
- 1000 Peter Masiko Hall/Human Resources
- 2000 Niles Trammel Center/Library/Computer Courtyard
- 3000 Leonard Usina Hall/Student Services
- 4000 Daniel K. Gill Hall
- 5000 Fine Arts Building Annex/Public Safety
- 6000 Alfred L. McCarthy Hall
- 7000 Theodore R. Gibson Center/Gym
- 8000 Maria C. Hernandez Center/Bookstore, Cafeteria
- 9000 Jack Kassewitz Hall
- 400 Dante & Jeanne-Marie Fascell Conference Center
- A Athletic fields
- E Environmental Center
- L Parking Garage
- M Martin & Pat Fine Center for the Arts
- N Art Studio Building
- P Parking
- T Trailers



Medical Center Campus

950 N.W. 20th St.
Miami, FL 33127

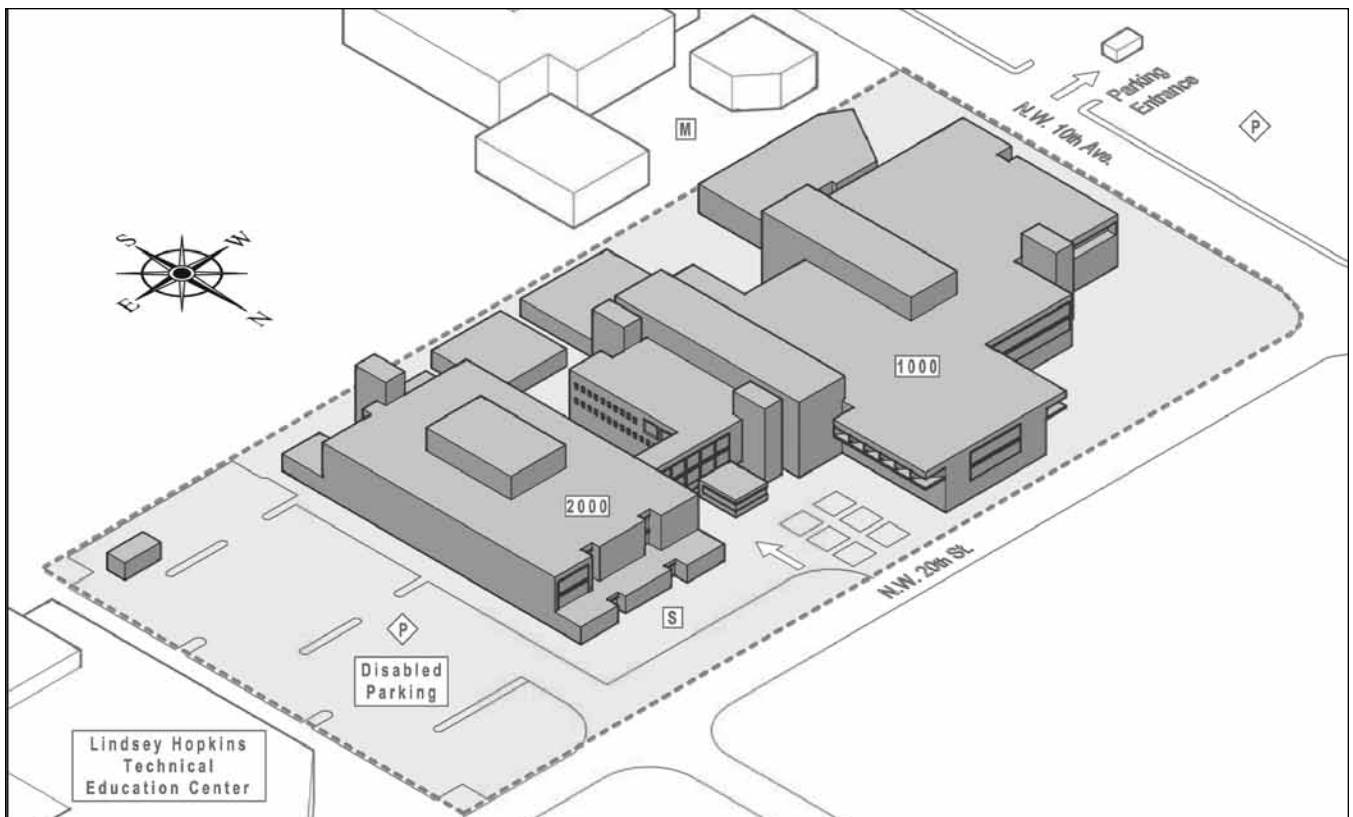


Important Phone Numbers

- 305-237-4444 • Admissions Information
- 305-237-4444 • Registration Information
- 305-237-4141 • Academic Advisement Information
- 305-237-4160 • Financial Aid Information
- 305-237-4141 • New Student Center
- 305-237-4100 • Campus Security
- 305-237-4275 • Testing Information

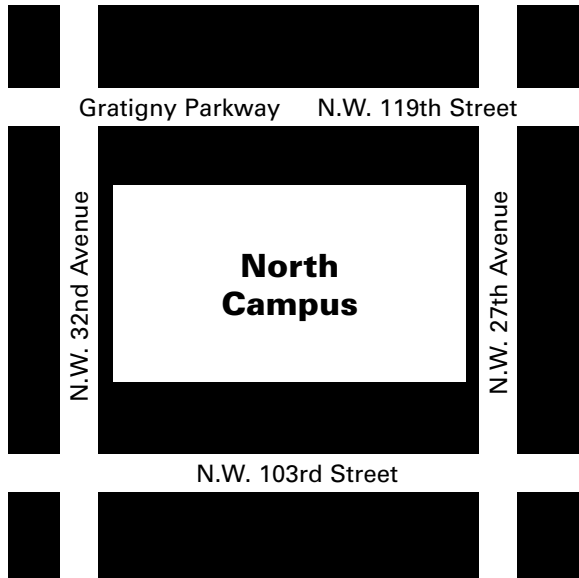
Key to Campus Locations

- 1000 Anna Brenner Meyers Hall
- 2000 Nursing/Allied Health
- P Parking
- M Medical Examiner Center - Dr. Joseph Davis Forensic Pathology
- S Shuttle Pick Up/Drop Off



North Campus

**11380 N.W. 27th Ave.
Miami, FL 33167**

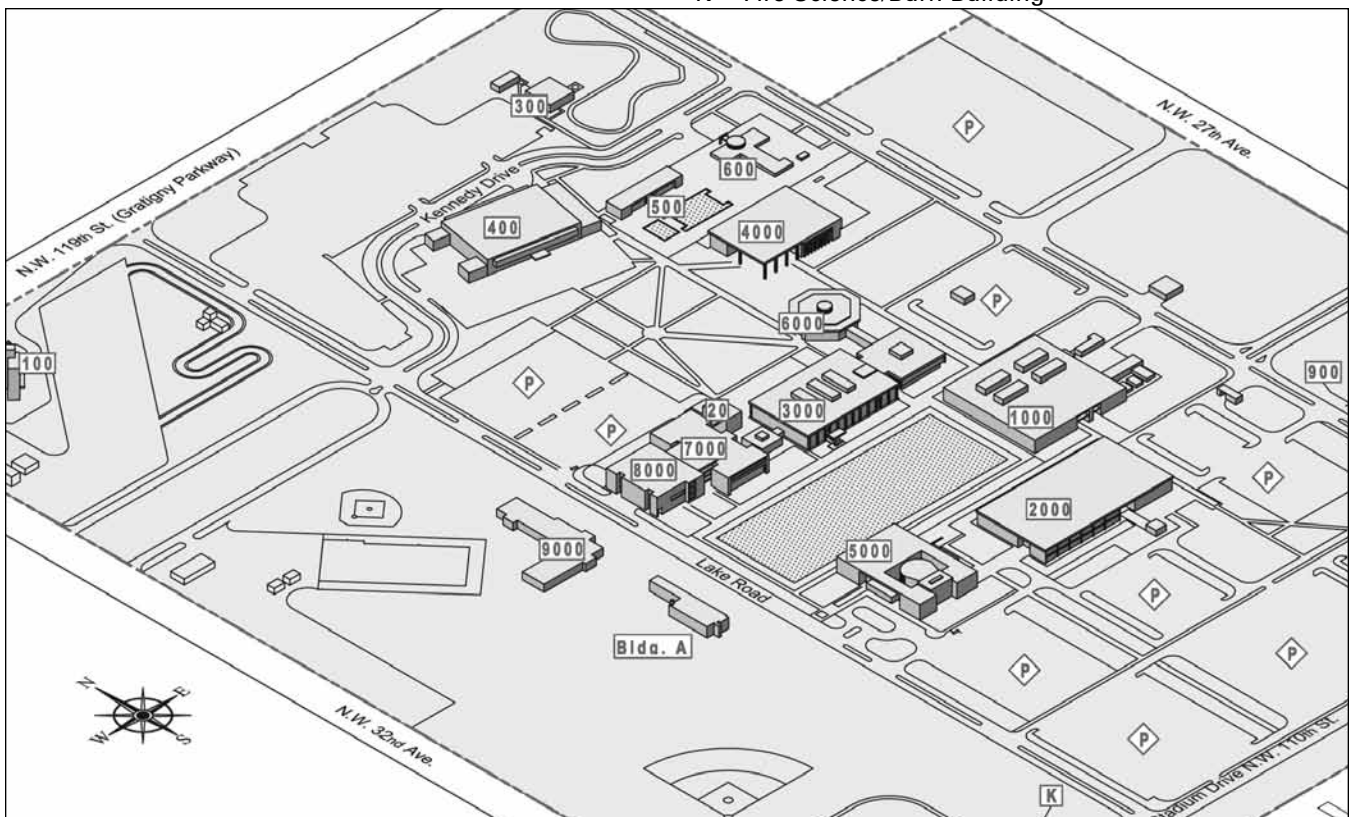


Important Phone Numbers

- 305-237-1149 • New Student Center
- 305-237-1111 • Admissions Information
- 305-237-1111 • Registration Information
- 305-237-1425 • Academic Advisement Information
- 305-237-1058 • Financial Aid Information
- 305-237-1100 • Campus Public Safety
- 305-237-1000 • Campus Main Number
- 305-237-1015 • Testing Information

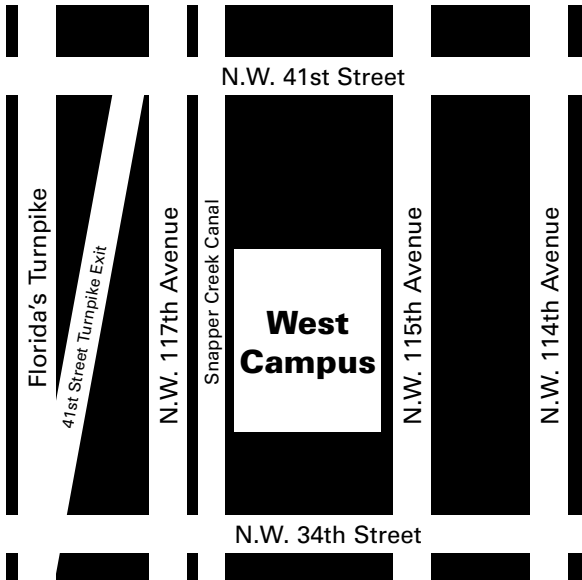
Key to Campus Locations

- 20 Environmental Science Technology Building
- 100 Chief Milton O. Bullock Fire Science Academy
- 300 Building 300
- 400 John F. Kennedy Health Center (Gym)
- 500 Aquatic Center
- 600 Pre-School Laboratory
- 1000 Paul R. Scott Hall - Registration and Student Services
- 2000 Mitchell Wolfson Learning Resources Hall/Library
- 3000 J. Nevelle McArthur Hall of Business and Technology
- 3000 Annex - W. L. Philbrick School of Funeral Sciences
- 4000 LeRoy Collins Campus Center/Student Life
- 5000 William D. Pawley Creative Arts Center and the William & Joan Lehman Theatre
- 6000 Developmental Studies Center
- 7000 Garth C. Reeves Hall
- 8000 School of Justice & Safety Administration
- 9000 School of Justice
- A Science Complex
- P Parking
- K Fire Science/Burn Building



West Campus

3800 N.W. 115th Ave.
Doral, FL 33178

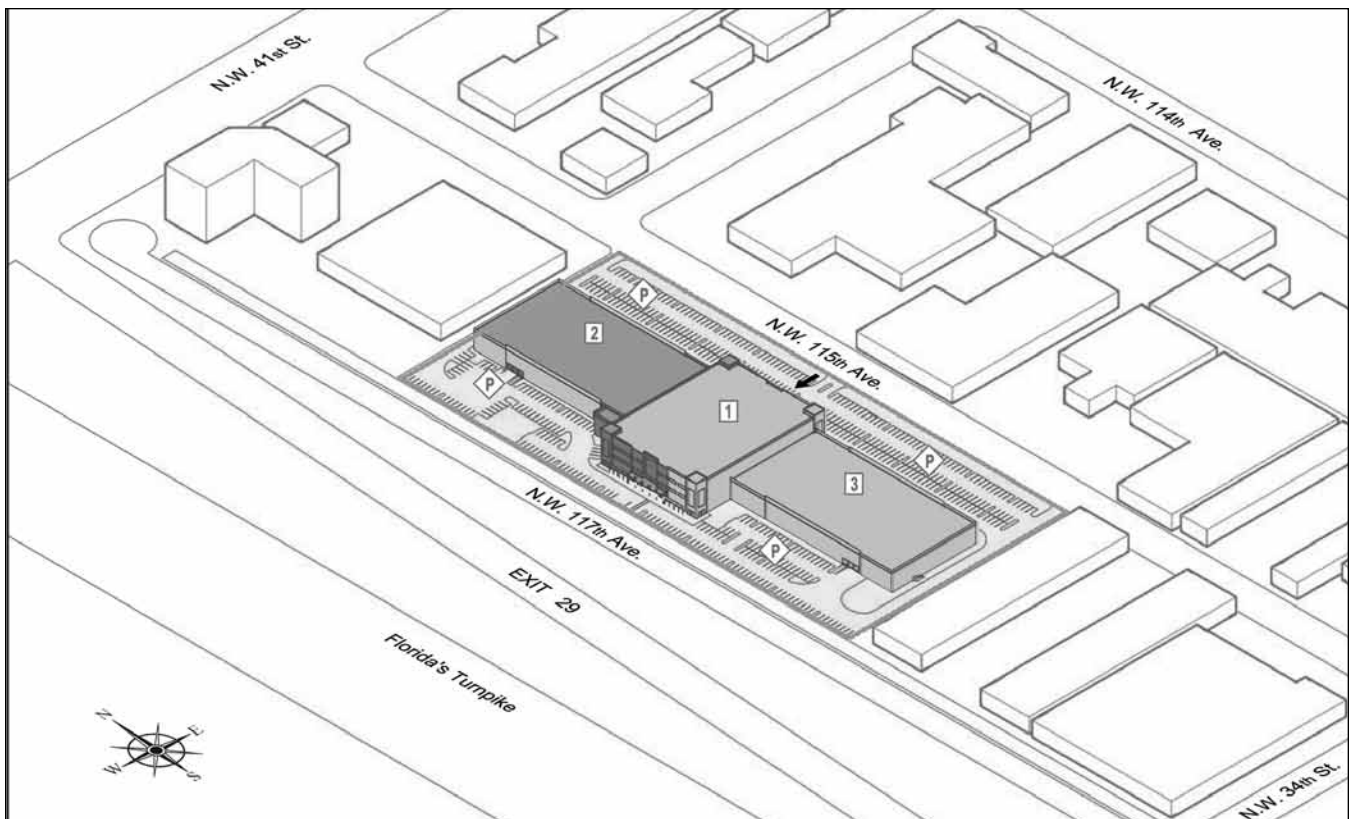


Important Phone Numbers

- 305-237-8900 • Admissions Information
- 305-237-8900 • Registration Information
- 305-237-8947 • Academic Advisement Information
- 305-237-8941 • Financial Aid Information
- 305-237-8100 • Campus Security
- 305-237-8912 • Testing Information

Key to Campus Locations

- 1 Central Building/Classrooms
- 2 Academic Support Center
- 3 South Wing (Parking Garage)
- P Parking



Wolfson Campus

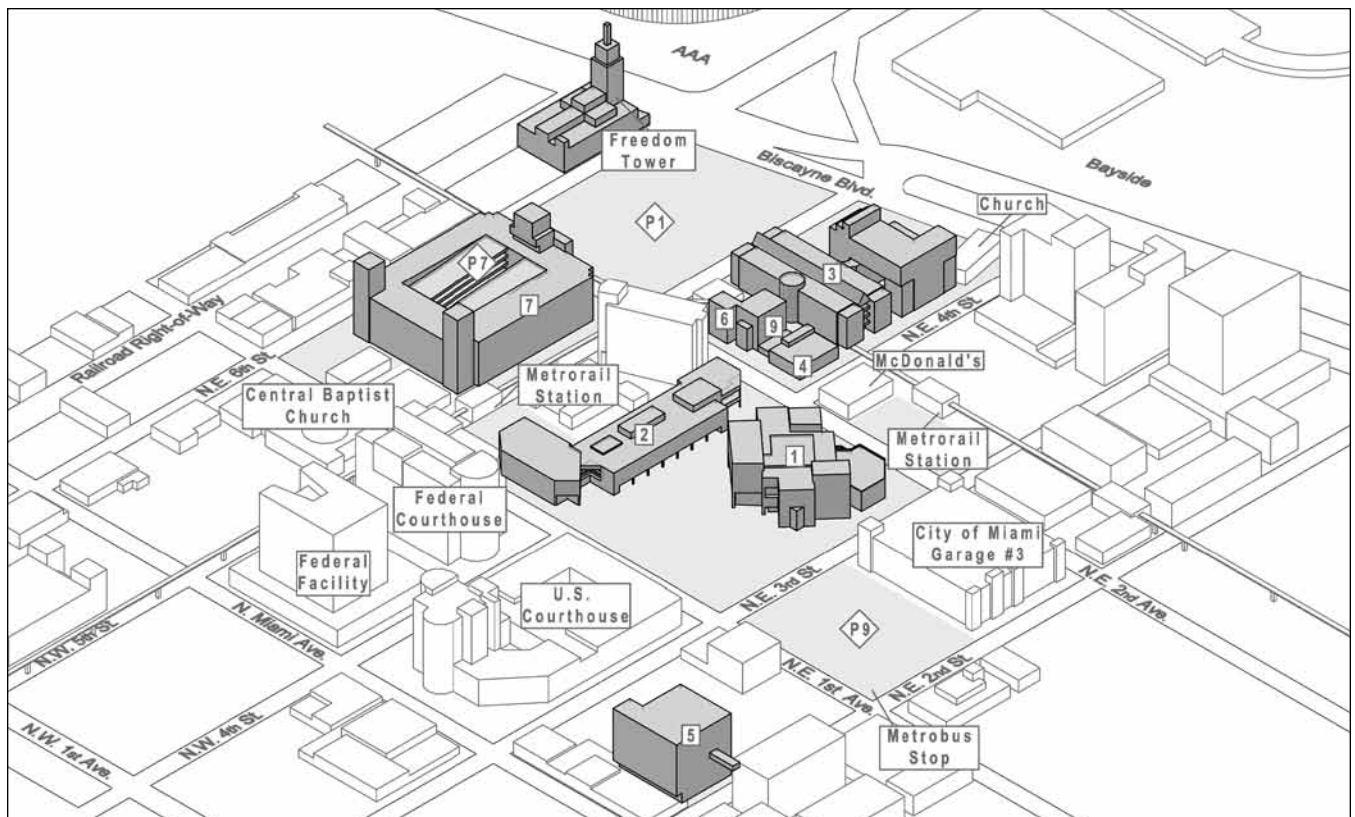
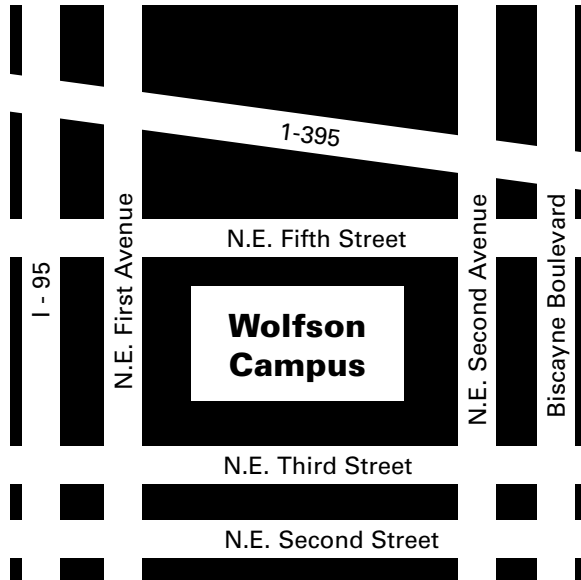
300 N.E. Second Ave.
Miami, FL 33132

Important Phone Numbers

- 305-237-3076 • New Student Center
- 305-237-3131 • Admissions/
Registration Information
- 305-237-3077 • Academic Advisement
Information
- 305-237-3244 • Financial Aid Information
- 305-237-3011 • Testing Information
- 305-237-3100 • Campus Security
- 305-237-3358 • Career & Transfer Center
- 305-237-3358 • Job Placement
- 305-237-3072 • Access Services
- 305-237-3536 • Student Life

Key to Campus Locations

- 1 Wolfson Building 1
- 2 Wolfson Building 2
- 3 Wolfson Building 3
- 4 Wolfson Building 4
- 5 New World School of the Arts
- 6 Mail Room and Instructional Facilities
- 7 ETCOTA and Parking Garage
- 8 Miami Fire Station Number One
- 9 Miami Culinary Institute
- P1 Faculty/Staff Parking
- P7 Student/Faculty/Staff Parking
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