MIDDLESEX COUNTY COLLEGE

Course Catalog 08-09

MIDDLESEX COUNTY COLLEGE

2008 - 2009 Catalog

MAIN CAMPUS
2600 Woodbridge Avenue
P.O. Box 3050
Edison, New Jersey 08818
732.548.6000

NEW BRUNSWICK CENTER
140 New Street
New Brunswick, NJ 08901
732.745.8866

PERTH AMBOY CENTER
60 Washington Street
Perth Amboy, NJ 08861
732.324.0700

Foreword:

The catalog is the contract between the College and the student. This catalog provides information for students, faculty, and administrators regarding the College's policies. Requirements, course offerings, schedules, activities, tuition and fees in this catalog are subject to change without notice at any time at the sole discretion of the administration. Such changes may be of any nature, including but not limited to the elimination of programs, classes, or activities; the relocation or modification of the content of any of the foregoing; and the cancellation of a schedule of classes or other academic activities. Payment of tuition or attendance in any class shall constitute a student's acceptance of the administration's rights as set forth above. The Office of the Registrar prepares the catalog. Any questions about its contents should be directed to the Registrar in Chambers Hall.

The most current information can be found on the MCC website: www.middlesexcc.edu

Cover painting by Frank McGinley ©2007. Used by permission.

Middlesex County College

Affirmative Action and Compliance Statement

Middlesex County College is firmly committed to a policy of Equal Opportunity and Affirmative Action. The college will implement this policy to assure that the educational programs, activities, benefits and employment opportunities offered by the college are available to all persons regardless of race, color, national or ethnic origin, ancestry, age, religion, sex, affectional or sexual orientation, marital status, veteran status or disability in accordance with applicable State and Federal laws. Inquiries regarding compliance may be directed to the Affirmative Action Officer, Middlesex County College, Chambers Hall, Edison, New Jersey 08818-3050.

Diversity Statement

The practice of diversity at Middlesex County College embraces, recognizes, and respects individual perspectives while fostering an environment that reflects the rich and unique composition of our community.

Accessibility for Persons with Disabilities

Middlesex County College provides reasonable accommodations for qualified individuals with disabilities. The campus facility is accessible to students with mobility impairments. Students requesting information regarding policies and procedures should contact the Counselor for Students with Disabilities at 732.906.2546.

MIDDLESEX COUNTY BOARD OF CHOSEN FREEHOLDERS

David B. Crabiel, *Freeholder Director*
Stephen J. Dalina, *Deputy Director*
Camille Fernicola
H. James Polos
Christopher D. Rafano
Ronald G. Rios
Blanquita Valenti

MIDDLESEX COUNTY COLLEGE BOARD OF TRUSTEES

Frank T. Antisell, *Manager of Centralized Engineering Services, Verizon*
Hank Bauer, *Former Vice President for Manufacturing Operations-USA, Bristol-Myers Squibb Company*
Mark J. Finkelstein, *Treasurer, Middlesex Regional Educational Services Commission*
John Mulkerin, *Former President and CEO, First Savings Bank*
Eileen Palumbo, *Director, Shared Service Benefits, Johnson & Johnson*
Patrick Piegari, *Middlesex County Superintendent of Schools*
Dorothy K. Power, *Chairman; Former Deputy Director, Middlesex County Board of Chosen Freeholders*
Praful Raja, *President, Diagnostic Specialties*
Alberto Rivas, Esquire, *Secretary; Attorney-at-Law, Lite, DePalma, Greenberg & Rivas*
Robert Sica, *President, New Brunswick Plating, Inc.*
Thomas Tighe, *Vice Chairman, Special Representative, Plumbers and Pipefitters Local 9*
Sally D'Aloisio, *Assistant Secretary*

MIDDLESEX COUNTY COLLEGE EXECUTIVE COUNCIL

Joann La Perla-Morales, *President*
Donald R. Drost, Jr., *Executive Director, Facilities Management*
Ronald C. Goldfarb, *Vice President for Legal and External Affairs*
Karen L. Hays, *Vice President for Academic and Student Affairs*
Susan K. Perkins, *Vice President, Finance and Administration*
Thomas Peterson, *Executive Assistant to the President and Director of Marketing and Public Information*
Neil S. Sachnoff, *Executive Director, Information Technology*

ACCREDITATION

The Middle States Association of Colleges and Secondary Schools accredits Middlesex County College. Inquiries may be sent to:
Commission on Higher Education
Middle States Association of Colleges and Schools
3624 Market Street, Philadelphia, PA 19104, 267.284.5000

Other Accreditations include:

The Dental Hygiene Program is accredited by the American Dental Association Commission on Accreditation.

The Radiography Program is accredited by the Joint Review Committee on Education in Radiologic Technology and the Joint Review Committee on Education in Radiologic Technology.

The Respiratory Care Program is accredited by the American Medical Association Commission on Allied Health Education and Accreditation.

The Nursing program is accredited by the New Jersey Board of Nursing.

The Medical Laboratory Technology program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences, 8410 W Bryn Mawr, Suite 670 Chicago, IL 60631, 773-714-8880.

The Dietetic Technology Program is granted accreditation by the Commission on Accreditation for Dietetics Education of the American Dietetic Association, 120 South Riverside Plaza, Suite 2000, Chicago, IL 60606-6995, 312.899.0040.

The Paralegal Studies Program is approved by the American Bar Association.

Vision, Mission, Goals and Objectives

VISION

- Middlesex County College puts learning first and measures its success only by the success of its students. All members of the college community contribute to student success.

MISSION

- The mission of Middlesex County College is to provide access to an affordable, quality education for diverse students and to promote lifelong learning opportunities to strengthen the economic, social and cultural life of the community.

GOALS

- To offer quality transfer-oriented associate degree programs to students who desire to complete the first two years of a baccalaureate degree program.
- To offer quality, technologically current associate degree career curricula and certificate programs which prepare students for employment and advancement in their chosen occupations.
- To provide access to education for a diverse population.
- To offer general education courses which foster an appreciation of knowledge, values and diversity that contribute to the development of intellectual, personal, and social skills.
- To offer community education programs and services which meet students' needs for self-development and occupational advancement and which respond to business, industry, and community needs.
- To offer a comprehensive range of student and learning support services, stressing student development, appropriate placement in courses and curricula, and the promotion of intellectual and social development consistent with the needs of students.
- To offer opportunities which encourage self-awareness, personal growth, successful academic performance, and career development.
- To foster ethics and high standards of conduct among the College community.
- To promote within our college community an understanding of and respect for all people of diverse cultures and diverse abilities.
- To promote open communication within the College as well as with external constituencies.
- To encourage participatory and information-based decision making in the College.
- To encourage students to take an active role in their local, national, and global communities, including an appreciation for social and environmental issues.
- To integrate the use of technology throughout the college to enhance student learning, to facilitate student access to college services, and to improve organizational effectiveness.
- To foster the pursuit of lifelong learning among faculty, staff, and students.
- To enhance and enrich the social, cultural, professional, and recreational life of our communities by offering special events and the use of college facilities.
- To provide a safe, comfortable, and aesthetically pleasing learning and working environment.

OBJECTIVES

- Maintain the currency of transfer articulation agreements and develop new ones.
- Respond to the changes and requirements of baccalaureate curricula.
- Assess periodically curricular requirements and offerings to ensure that they reflect current job market and transfer needs.
- Provide instructional approaches and student services which accommodate differences in student needs, abilities, and learning styles.
- Assess periodically the educational and employment needs of local employers.
- Develop students' abilities to think critically and to use oral and written language effectively.
- Develop students' abilities to define and solve problems through analytical thinking and by synthesizing knowledge from a variety of sources.
- Develop students' abilities to appreciate, understand, and use technology and library resources effectively.
- Assess periodically community education offerings to ensure that they are responsive to community needs, interests, and priorities.
- Foster within the academic community an understanding of global issues, the needs of diverse populations, and their impact upon a broad variety of disciplines.
- Offer assistance and services to students with special needs, and assure compliance with pertinent legal requirements, such as the Americans with Disabilities Act.
- Allow the community easy access to programs and services of the College by setting policies and tuition rates accordingly.
- Provide counseling and advising services responsive to the educational, career, and personal needs of students.
- Encourage student involvement and leadership through collegiate governance, co-curricular activities, and service learning opportunities.
- Offer special services to meet the needs of the diverse student body.
- Offer developmental programs and support services to meet the College preparatory needs of students.
- Offer job placement services to meet the needs of students and graduates.
- Provide opportunities for students to participate in intercollegiate sports.
- Provide a variety of venues for performing arts and cultural experiences.
- Offer professional development and evaluation programs for faculty, administrators, and staff that are responsive to the needs of the College.
- Maintain a climate of mutual trust and open and candid communication among students, faculty, staff, administrators, and the Board of Trustees.
- Involve faculty, staff, and students in determining college policies affecting them.
- Assess programs and services for improvement and accountability.

Table of Contents

GENERAL INFORMATION

Academic Standards and Regulations

Students' Rights and Responsibilities

Academic Programs Index

Expenses, Financial Aid and Scholarships

Enrollment Services, Programs and Activities

Community Outreach

Program Requirements

Course Descriptions

Directories

Calendars & General Information

FALL 2008

August	25	Faculty Meetings; First Day of Faculty Obligation
	26	Faculty Development; Mandatory Day for Faculty
	27	Change of Program, New Student Orientation, Advisement by Faculty
	28	Change of Program, New Student Orientation, Advisement by Faculty
September	1	Labor Day – No Classes
	2	Classes Begin – Fall Semester
October	13	Columbus Day – No Classes
November	11	Veteran's Day – No Classes
	27-30	Thanksgiving – No Classes
December	12	Last Day of Classes
	15, 16 & 17	Specially Scheduled Final Examinations
	18	Winter Recess Begins
	24, 25	Holiday – No Classes

WINTERSESSION 2009

December	22	Wintersession Classes Begins
	26	No Classes
January	1	No Classes
	3 & 10	Wintersession Snow Days
	12	Last Day of Wintersession Classes
	13	Winter Recess Ends

SPRING 2009

January	14	Faculty Meetings; First Day of Faculty Obligation
	15	Change of Program, New Student Orientation, Advisement by Faculty
	16	Change of Program, New Student Orientation, Advisement by Faculty
	19	Martin Luther King Day – No Classes
	20	Classes Begin – Spring Semester
February	16	Presidents' Day – No Classes
March	14	Spring Recess Begins – No Classes
	21	Weekend Classes Resume
	23	Regular Classes Resume
April	10	Good Friday – No Classes
	11, 12	No Classes
May	6	Last Day of Classes
	7, 8 & 11	Specially Scheduled Final Examinations
	15	Last Day of Faculty Obligation
	21	Graduation – No Classes (Summer)

SUMMER SESSION 2009

May	18	1st 4-Week Summer I Session **A** begins
		1st 7-Week Summer I Session **C** begins
		14-Week Summer II Session **F** begins
	21	No Classes (Graduation)
	25	Memorial Day – No Classes
	26	Classes Resume
June	11	1st 4-Week Summer I Session **A** ends
	15	2nd 4-Week Summer I Session **B** begins
July	2	1st 7-Week Summer I Session **C** ends
	3 & 4	No Classes
	6	2nd 7-Week Summer II Session **E** begins
	9	2nd 4-Week Summer I Session **B** ends
	13	3rd 4-Week Summer II Session **D** begins
August	6	3rd 4-Week Summer II Session **D** ends
	20	2nd 7-Week Summer II Session **E** ends
	20	14-Week Summer II Session **F** ends

CONTACT INFORMATION

Office	Building	E-Mail	Telephone
Academic Advising Center	Chambers Hall	advising@middlesexcc.edu	732.906.2596
Admissions and Recruitment Office	Chambers Hall	admissions@middlesexcc.edu	732.906.4243
Bursar	Chambers Hall	bursar@middlesexcc.edu	732.906.2572
Corporate and Community Education	West Hall 203	community_ed@middlesexcc.edu	732.906.2556
Counseling and Career Services	Edison Hall	counseling@middlesexcc.edu	732.906.2546
Financial Aid Office	South I	financial_aid@middlesexcc.edu	732.906.2520
Health Services	South II	jdimaio@middlesexcc.edu	732.906.2530
The Institute	Instructional Resource Center 205	the_institute@middlesexcc.edu	732.906.4681
Physical Education Department	Physical Education Center	rwisniewski@middlesexcc.edu	732.906.2558
Office of the Registrar	Chambers Hall	registration@middlesexcc.edu	732.906.2523
Testing Center	Johnson Learning Center 229	testing _tutoring@middlesexcc.edu	732.906.2508

Academic Standards and Regulations

GENERAL EDUCATION

The purpose of the general education program is to ensure that graduates develop competencies that enable them to analyze and evaluate information, think critically and independently, and be informed and articulate. The general education program at Middlesex County College meets the goals and criteria established for community colleges in New Jersey. The courses are organized into the following categories:

- Communication (GE COM)
- Mathematics, science and technology (GE MST)
- Social sciences (GE SS)
- Humanities (GE HUM)
- History (GE HIS)
- Diversity (which includes ethical reasoning) (GE DIV)

General education courses are included in each degree program and noted on the program outlines and in course descriptions included in the catalog.

The Associate in Arts (A.A.) degree requires 45 general education credits as follows:

- 9 credits in communication
- 12 credits in mathematics, science, technology
- 6 credits in social sciences
- 9 credits in humanities
- 6 credits in history
- 3 credits in diversity

The Associate in Science (A.S.) degree requires 30 general education credits as follows:

- 6 credits in communication
- 9 credits in mathematics, science, technology
- 3 credits in social sciences
- 3 credits in humanities
- 3 additional credits in either social sciences or humanities
- 6 additional credits in general education

The Associate in Applied Science (A.A.S.) degree, the Associate in Fine Arts (A.F.A.) degree, and the Associate in Science Degree in Nursing requires 20 general education credits as follows:

- 6 credits in communication
- 3 credits in mathematics, science, technology
- 3 credits in social sciences or humanities
- 8 additional credits in general education

Certificate programs require the completion of 6 general education credits as follows:

- 3 credits in communication
- 3 credits in mathematics, science, technology, social sciences or humanities

In addition to these general education courses, discipline specific and other degree requirements are included in each program. Please see *Degree and Certificate Requirements* and the program outline information found in this catalog.

SKILL ASSESSMENT AND PLACEMENT

Middlesex County College believes appropriate skills assessment and placement in all basic learning areas is vital to student success in every course offered at the College. In addition, each class experience is enhanced by the enrollment of prepared students.

The college's placement test, Accuplacer, is given to determine skill levels and to help place students in appropriate courses. All full-time students must be assessed in reading, writing and mathematics prior to enrolling for their first semester of study. Part-time students are allowed to attempt 11 credits over multiple semesters prior to taking the placement test. No one may enroll in English or mathematics courses or any course that requires English or mathematics courses as prerequisites without completing the placement test or being granted an exemption from the placement test.

Students whose native language is not English must take the English as a Second Language placement test, which includes an interview. At that time, students will be placed in English as a Second Language courses or directed to take the placement test.

PLACEMENT TEST EXEMPTIONS

Middlesex County College may exempt the following students from the Accuplacer test:

- Students who already hold an associate's degree or higher from a regionally accredited U.S. college or university.
- Students whose foreign degree had been equated to a U.S. bachelor's degree after evaluation by a certified evaluation service are exempt from taking the Accuplacer Test. However, students in this category are required to take the ESL Placement Test unless they submit an acceptable TOEFL score to be used in place of the full ESL placement test. Students need a score of 550 for the paper-based TOEFL, 213 for the computer-based TOEFL, and 79 for the Internet-based TOEFL to be exempt from ESL classes.
- Students who score 530 or higher in Math or 540 or higher in Critical Reading on the SAT Reasoning Test may be exempt from the placement test in one or more categories. Scores are valid for five years.
- Students who attended a regionally accredited U.S. college or university and completed one semester of English composition or one semester of college-level math with a grade of "C" or better may be exempt from appropriate categories of the placement test.
- Students enrolled in another college who are attending Middlesex as visiting students may be exempt from testing by submitting a "Visiting Student Letter" each semester.
- Students with foreign degrees who wish to enroll in one or two computer science courses as "Undeclared" students may be temporarily exempt from placement testing after presenting a WES (World Evaluation Service) evaluation of their credentials.

Please Note

- Non-native speakers of English who did not complete four years of high school English at an accredited U.S. high school must take the ESL Placement Test. Students who take the ESL Placement Test followed by an oral interview may be exempt from ESL courses. If so, the student must take the Accuplacer Test.
- Prueba de Aptitud Academica (PAA) scores will not be accepted as a basis for exempting prospective students from the college placement test.

DEVELOPMENTAL EDUCATION PROCEDURES

Overall Policy

Students may be required to complete developmental courses based upon the results of the placement test. The following procedures are designed to provide the best academic path for students who are working to achieve college level skills in reading, writing, math computation and elementary algebra.

Students must complete required developmental courses as early as possible. Early remediation helps ensure success in other college courses. No credit-bearing courses in English or mathematics (or any

course that requires English or mathematics as prerequisites) may be taken prior to successful completion of required developmental courses in these areas.

1. Full-time students must satisfactorily complete all required developmental courses in the first two semesters of study. If a student's major requires a second level of algebra, one semester will be added to the time allowed for completion. Appropriate level developmental courses are taken in sequence, and all areas must be addressed each semester until all are completed. Students who are required to include developmental courses may carry no more than a combined total of 15 credits or credit equivalents. Students who wish to take more than 15 credits may do so only by submitting an appeal to the Academic Advising Center, located in Chambers Hall.

2. Part-time students may take up to 11 credits before taking the placement test. No student may enroll in a reading, writing or math course, or any course with these subjects as a prerequisite, before taking the college placement test or receiving an exemption.

   Completion of developmental requirements should be in the following order:

   a. Reading courses
   b. Writing courses
   c. Mathematics Computation
   d. Elementary Algebra
   e. Intermediate Algebra (when required for the major)

3. Students required to take both RDG 009, Reading Skills for College I and RDG 011, Reading Skills for College II, must enroll in the appropriate reading course each semester, until each course is successfully completed with a grade of "C" or better.

4. MAT 013, Algebra I is a prerequisite for all programs. Students enrolled in the following degree and certificate programs who need remediation in algebra must successfully complete MAT 014, Algebra II, with a grade of "C" or better before they may enroll in any credit-bearing mathematics course.

   Business Administration Degree Designed for Transfer
   Civil Engineering Technology
   Computer Science
   Electrical Engineering Technology
   Engineering Science
   Mechanical Engineering
   Science Transfer - Biology, Chemistry, Mathematics or Physics

Completion Standards for Developmental Courses

Students needing remediation in the following areas must earn a grade of "C" or better in these courses before advancing to the next level:

BIO 010	Basic Biology
CHM 010	Basic Chemistry
ENG 009	Writing Skills for College I
ENG 010	Writing Skills for College II
MAT 010	Basic Mathematics
MAT 013	Algebra I
MAT 014	Algebra II
RDG 009	Reading Skills for College I
RDG 011	Reading Skills for College II

5. The Student Success Course (SSD 101) is open to all students. SSD is mandatory for all students required to take two or more of the listed developmental courses:

   ENG 009 Writing Skills for College I
   ENG 010 Writing Skills for College II
   MAT 010 Basic Mathematics
   MAT 013 Algebra I
   RDG 009 Reading Skills for College I
   RDG 011 Reading Skills for College II

Note: *ESL courses are not developmental, and ESL students are not required to take SSD 101.*

ADVANCED STANDING

College Credit by Examination

There are several programs at the College through which applicants may earn credit for knowledge gained in nontraditional ways. The College Level Examination Program (CLEP) and the Credit By Examination Program (CBE) described below, are such programs.

Applicants for these programs include anyone who:

- Has extended work experience and wishes to demonstrate it
- Has taken courses at a non-accredited educational institution and wishes to earn college credit
- Has taken courses through correspondence or adult education programs, or in the military service
- Has done extensive independent study and wishes to earn college credit.

Applicants are encouraged to consult the Testing Center or a counselor in the Department of Counseling and Career Services about these test opportunities to determine which program would best meet their needs.

The policies of four-year institutions vary with respect to accepting the College Level Examination Program (CLEP) and Credit By Examination Program (CBE). All applicants who plan to transfer from Middlesex County College are advised to consult the registrar at the prospective transfer college regarding the institutional policy on accepting transfer credit earned by CLEP and CBE. Policy statements of those New Jersey colleges that have a formal policy on this matter are on file in the Department of Counseling and Career Services.

College Level Examination Program (CLEP)

College credit can be awarded for the College Level Examination Program (CLEP). *For further information, call the Testing Center, 732.906.2508.*

Credit by Examination (CBE)

This program provides the opportunity to earn course credit for specific courses offered at the college. There are examinations for courses in every division at the college and the offerings are updated frequently. Information (including an application form, the current listing of courses offered through this program, and dates and fees) is available in the Testing Center.

Advanced Placement Exams

The college may grant credit for Advanced Placement Examinations (minimum grade of 3.0). The Advanced Placement Program, sponsored by the College Entrance Examination Board, offers students the opportunity to pursue college-level study while in secondary school and receive advanced placement and/or credit upon entering college.

Upon successful completion of the AP exam, applicants should have the official scores sent to the Office of the Registrar for evaluation. These scores may be requested by writing to:

Advanced Placement Examination Program
College Entrance Examination Board
Princeton, NJ 08541-6671

CREDIT FOR NONCOLLEGIATE EDUCATIONAL PROGRAMS

Middlesex grants transfer credit for certain noncollegiate educational programs in accordance with the recommendation of the American Council on Education contained in *"The National Guide" or "A Guide to Educational Programs in Noncollegiate Organizations."* These credits are granted when they are evaluated as equivalent to graduation requirements for college-level courses as determined by the academic departments with the concurrent approvals of the chair and dean.

CREDIT FOR EDUCATIONAL EXPERIENCE IN THE ARMED SERVICES

Middlesex grants transfer credit for coursework taken in the armed services in accordance with the recommendations of the American Council on Education contained in *"A Guide to the Evaluation of Educational Experiences in the Armed Services."* These credits are granted when they are evaluated as equivalent to college-level courses as determined by appropriate academic departments with the concurrent approvals of the chair and dean. Basic military training is accepted through a waiver for credit toward the physical education requirement.

DANTES TESTS

College policy regarding USAFI/DANTES tests is as follows: The college will grant credit to students who achieve a rating of "S" (Satisfactory) or "D" (With Distinction) in USAFI/DANTES courses where the measure of achievement is an end-of-course test or a subject examination. Where the measure of achievement is a USAFI/DANTES Subject Standardized Test, the college may grant credit for a percentile rating of 35 or above. No final decision is made until the scores have been received from DANTES.

These scores may be sent to the Office of Admissions and Recruitment by requesting a transcript online at:
www.dantes.doded.mil

Defense Activity for Non-Traditional Education Support
Educational Testing Service
Contract Representative for DANTES
Box 2819
Princeton, NJ 08541

Correspondence should include the student's military service number(s) and social security number.

PREVIOUS COLLEGE CREDIT

Students who have attended another college must submit official transcripts of all such work to the Office of Admissions and Recruitment. Only letter grades of "C" and above are accepted. Students seeking transfer credit for courses taken at a foreign institution should submit an evaluation from a certified evaluation service.

PREREQUISITES

If a prerequisite is listed and the student has not successfully completed that prerequisite course at Middlesex County College, he or she may not enroll in the course unless written approval of the department chair is obtained.

Non-declared students who submit proof of an earned bachelor's degree or higher from a regionally accredited college or university within the United States may be exempt from course prerequisites if they believe they have the appropriate academic background to succeed in the course. Such students assume full responsibility for their academic preparedness. If the student later decides to withdraw, no special consideration for a tuition refund beyond the regular refund schedule will be made.

COURSE TIME LIMITS

Students who have been admitted to a degree or certificate program are expected to make continuous progress towards satisfying all program requirements. They should consult with the department chair responsible for their major for information on course time limits. Courses in the student's major are subject to review after five years and all other courses after 10 years. Students may need to repeat some courses if they have exceeded the time limit. The time limit review procedure also applies to the evaluation of transfer credits.

DEGREE AND CERTIFICATE REQUIREMENTS

Degree Requirements

1. Satisfactory completion of all courses in an approved program that requires not fewer than 60 nor more than 66 semester credit hours, except when required for licensure, accreditation, or transfer of full junior status.
2. Minimum grades of "C" in English composition courses.
3. Minimum cumulative grade point average of 2.0.
4. Residency Requirements: Individual programs may require a minimum number of courses in the major to be taken at Middlesex County College. The College may accept up to 45 credits for courses successfully completed at another college.

Associate in Arts Degree

1. 9 credits in communication.
2. 12 credits in mathematics, science, technology.
3. 6 credits in social sciences.
4. 9 credits in humanities.
5. 6 credits in history.
6. 3 credits in diversity.
7. A minimum of 1 credit in physical education or health education.
8. A minimum of 12 credits in one area of concentration.
9. Additional credits as detailed in the sample plan of study to comply with general college requirements.

**Level of language placement is based on proficiency tests*

Associate in Fine Arts Degree

1. A minimum of 6 credits in communication.
2. A minimum of 3 credits in mathematics, science, technology.
3. A minimum of 3 credits in humanities or social sciences.
4. A minimum of 8 other general education credits.
5. A minimum of 1 credit in physical education or health education.
6. Additional credits as detailed in the Associate in Fine Arts to comply with the specific fine arts discipline requirements.

Associate in Science Degree

1. A minimum of 6 credits in communication.
2. A minimum of 3 credits in the humanities.
3. A minimum of 3 credits in social sciences.
4. A minimum of 3 additional credits in social sciences or humanities.
5. A minimum of 9 credits in mathematics, science, technology.
6. Additional 6 credits in general education.
7. A minimum of 1 credit in physical education or health education.
8. Additional credits as detailed in the sample plan of study to comply with general college requirements.

Associate in Applied Science Degree

1. A minimum of 6 credits in communication.
2. A minimum of 3 credits in social sciences or humanities.
3. A minimum of 3 credits in mathematics, science, technology.
4. Additional 8 credits in general education.
5. A minimum of 1 credit in physical education or health education.
6. Additional credits as detailed in the degree requirements to comply with general college requirements.

Second Associate Degree

A second associate's degree may be awarded upon completion of degree requirements for the second degree.

Certificate Requirements

1. Satisfactory completion of all courses in an approved program that requires not fewer than 30 and no more than 36 credit hours.
2. Minimum grades of "C" in English composition courses when those courses are required in the approved program.
3. Minimum cumulative grade point average of 2.0.
4. Individual programs may require a minimum number of courses in the major to be taken at Middlesex County College. The College may accept up to 15 credits for courses successfully completed at another college.
5. A minimum of 6 credits of general education, 3 credits in communication and 3 credits in mathematics, science or technology.

Certificate of Achievement Requirements

1. Satisfactory completion of all courses in an approved program which requires no more than 29 degree credit hours.
2. Minimum cumulative grade point average of 2.0.
3. The College may accept up to 9 credits for courses successfully completed at another college.

GRADUATION

Application

Degrees and Certificates are awarded in August, January, and May. Students must submit an application for graduation to the Bursar's Office. The application fee is $40. The deadlines for filing are: July 1 for August graduation, December 1 for January graduation, and March 1 for May graduation. Students who do not meet all degree or certificate requirements for the graduation date stated in the application must reapply in order to be considered for graduation at a later date and are not charged an additional application fee.

May Commencement Ceremony

The following students may participate in the College Commencement held each May. Eligible students include those who:

- Completed degree and certificate requirements in January or May
- Have one or two courses remaining and expect to graduate in August.
- Completed their requirements during the previous summer but did not participate in the Commencement Ceremony the year before.

Additionally, candidates for degrees in Automotive Technology, the Culinary Arts Option in Hotel, Restaurant and Institution Management, Radiography Education, Respiratory Care and candidates for the certificate in Culinary Arts who are required to enroll in clinical courses in the Summer Session may participate in the ceremony. To be eligible, candidates must submit an application for August graduation by March 1.

Honors and Awards

- **The Frank M. Chambers Award for Academic Achievement**
  This award for academic excellence is presented each year at Commencement to those graduates who have achieved a 4.0 cumulative grade point average at Middlesex County College. The award is named in honor of Dr. Chambers, founding president, who served from 1965 to 1975. Certificate candidates aren't eligible for the Chambers Award.

TRANSCRIPTS

Middlesex County College uses Electronic Transcripts (ET) to send/receive transcripts electronically. Using ET, MCC can send a transcript to a participating two-year or four-year institution via the NJ Transfer server. Current or former students who have a CampusCruiser/WebAdvisor login and password may submit requests for official transcripts on line. Issuance of official transcripts routinely takes two working days from the time the request is received in the Office of the Registrar. It takes five working days from the time grades are posted to the transcript file at the end of a term. There is no fee for this service. Students who choose to pick up their transcript rather than having it mailed must present identification. If the student has another person pick up the transcript, that person must present identification and a letter from the student. Students with outstanding financial or other obligations are not issued official transcripts.

ACADEMIC INTEGRITY POLICY

Academic integrity is essential to all educational endeavors and demands that every individual adhere to its basic ethical principles. All academic work must be wholly the product of the individual or individuals who submit it except as properly noted; joint efforts are legitimate only when assigned or approved by the instructor. Academic dishonesty can take the form of plagiarism or cheating.

Plagiarism

To plagiarize is to copy someone else's writing or ideas and to present them as one's own. Even if the author's exact words are not used, it is plagiarism if his or her ideas are used without giving credit. Types of plagiarism include:

- Copying word-for-word from a source without giving credit to the author is plagiarism. This includes copying all of, or portions of, a paper, book, periodical, CD-ROM, web page, or other material written by another person. Text that is copied must be referenced using a standard citation style. Examples of this type of plagiarism include copying a paper written by another person, and cutting a sentence or paragraph from any source and pasting it into one's paper.
- Paraphrasing without giving credit to the original source for the idea is plagiarism. To paraphrase is to restate a text or passage in another form or in different words. Credit must be given to the author for his or her idea.
- Using language that is almost identical to the language of another author is plagiarism. Students should either rewrite the passage in an original style, with attribution given for the idea, or they should use a direct quote and credit the author.

Cheating

To cheat is to give or receive assistance with an assignment, or during an exam, which is not authorized by the instructor. Examples of cheating include, but are not limited to:

- Consulting or possessing unapproved materials during a test
- Copying from another student's exam paper or allowing another student to copy from one's exam paper
- Receiving or providing assistance during an exam through an electronic device such as a cell phone, beeper, or PDA
- Falsifying data collected for a lab report or other assignment
- Collaborating on an assignment without approval
- Sabotaging another student's work
- Submitting for a grade an assignment that was completed by another person, or giving an assignment to another student so that he or she can submit it as his or her own work.
- Using a stand-in to take an exam or acting as a stand-in to take an exam
- Altering a graded assignment to obtain a better grade without the instructor's permission
- Possessing exam questions or other test materials without approval
- Forging, altering, or misusing a college document
- Aiding and abetting another in committing an act of academic dishonesty

Penalties

Any violation of the principles of academic integrity is a serious offense. Penalties imposed by the instructor can range from an alternate assignment to failure in the course. The instructor may file code of student conduct charges which may result in suspension from the college.

ATTENDANCE

To obtain the maximum benefit from educational opportunities, students must establish habits of regular class attendance. The college values educational growth that results from such class attendance where ideas and concepts, social development, knowledge, and success derive from the interaction of students and faculty. Therefore:

1. Students are expected to attend all classes, laboratories, and clinical sessions for which they are enrolled.
2. Students are graded solely on the basis of quality and quantity of work, as stated in the course goals, objectives, and grading requirements distributed by the instructor at the beginning of each term. Students are responsible for all subject matter presented or assigned and should understand that work or tests missed may jeopardize their grades.
3. Students whose absence is caused by personal illness or serious personal matters should contact their instructors and will be allowed to make up work when possible. It is the prerogative of the instructor to excuse absences provided the student will be able to fulfill course requirements. It is the student's responsibility to arrange promptly with the instructor to make up missed work which has been agreed to by the instructor. Excessive absences may result in not meeting the course objectives and a failing grade as defined in the instructor's grading requirements.

GRADING SYSTEM

Letter Grade	Point System
A	4
A-	3.7
B+	3.5
B	3
B-	2.7
C+	2.5
C	2
D	1
F	0

Other Grades *(Not included in cumulative average)*

Letter Grade	Description
E	Credit by examination
GU	Grade unreported by the instructor due to emergency situation
I	Incomplete work to be made up within one week from the end of the semester or by special arrangement of the department. An "I" grade is temporary and will be changed to an "F" if make-up is not accomplished in a timely fashion.
IP	Course in progress grade has not yet been assigned
T	Transfer credit from another institution
W	Withdrawal from course
X	Audit

Credit Equivalent

Credit equivalency is used to calculate cost, determine student status, and indicate a comparable level of class time and/or workload. Credit equivalent courses are indicated on the transcript with a "Q" preceding the assigned grade. Credit equivalents count in the term GPA but not the cumulative GPA.

Grade Changes - Time Limit

Grade changes should be made as soon as the error is detected or an appeal is granted. All approved grade changes must be submitted to the Office of the Registrar within one year of the original grade assignment.

Repeated Courses

Students must file a written appeal with the Academic Advising Center, located in Chambers Hall, to repeat a course more than three times. Students may repeat any course regardless of the grade first received. If the course number or title has changed, students must submit a student appeal to academic division dean first requesting that an equivalent course be approved. Any grades assigned including "F" or "W" constitute enrollment in a course. All previous courses will remain on record. Only the highest grade will count in the average, regardless of the number of times the course has been taken. The recalculation of the grade point average occurs automatically after grades are posted to the transcript at the close of each semester. Courses completed at another institution will not be eligible for such a grade point average recalculation. Credit by Examination may be used in lieu of repeating a course. Nursing students should contact the academic dean for an explanation of the repeat policy pertaining to their program. Students transferring to another college are advised that every institution has its own policy regarding repeated courses and the calculation of the cumulative grade point average. Other colleges may not apply Middlesex County College's policy when calculating the student's GPA for admissions purposes.

Calculation of Grade Point Average

Grade point averages are calculated using the following formula:

- GHR (Graded Hours - are the total credits for which grades were given)
- GHR is obtained by adding all of the credits from courses for which grades were given (A, B, C, D, F)
- GPT (grade point total) is determined by using the following scale:

Grade	Course Credit	x	Grade Points per credit	=	Grade Point Total
A	1	x	4	=	4
B	1	x	3	=	3
C	1	x	2	=	2
D	1	x	1	=	1
F	1	x	0	=	0
	5 GHR				10 GPT

Therefore, if a student took 5 courses, each 1 credit and received A, B, C, D, F, the total grade points (GPT) would be 10 and the course credits (GHR) would be 5.

$$\frac{\text{GPT} = 10}{\text{GHR} = 5} = 2.00 \text{ GPA}$$

Consider another example. A student initially enrolled in 5 courses (14 credits) and received on his or her grade report the following:

Grade	Course	Credits	Grade Points per credit	Grade Point Total
A	English I	3	4	12
B	Child Psy	3	3	9
C	Gen Chem I	4	2	8
W	Prin of Econ	0	0	0
D	Physical Ed	1	1	1
		11 GHR		30 GPT

Therefore, the GPA in this case would be 2.7.

SCHOLASTIC STANDING

Honors

- Dean's List
  Students who earn 12 or more credits and who achieve a grade point average of 3.25 or higher with no grade below a "C" will be eligible for Dean's List. Dean's List is awarded at the end of the Fall, Spring and Summer semesters for those students enrolled in 12 or more credits for that semester. Part-time students who earn 12 or more credits over the course of the year will be eligible for Dean's List at the end of the academic year.

- Dean's Letter of Commendation
  Students who earn 12 or more credit equivalents, or a combination of credit and credit equivalents, and who achieve a grade point average of 3.25 or higher with no grade below a "C" will be eligible for a Dean's Letter of Commendation. A Dean's Letter of Commendation will be awarded at the end of the Fall, Spring and Summer semesters for those students who earn 12 or more credits/credit equivalents for that semester, or at the end of the academic year for those who earn 12 or more credits/credit equivalents between September 1 of one year and August 31 of the following year but did not qualify for a Dean's Letter of Commendation in either the Fall or Spring semester. The grade of "I" (Incomplete) will disqualify students for an evaluation period. When the "I" grade is changed, students will be reevaluated for dean's honors.

- Honors at Graduation
  Students graduating with cumulative grade point averages of 3.25 or higher in course work completed at Middlesex County College are recognized at Commencement as honor students with the following designations:

3.70-4.00	Highest Honors
3.40-3.69	High Honors
3.25-3.39	Honors

EARLY WARNING

As part of a continuing effort to improve student success, faculty are encouraged to participate in the Early Warning System. This system identifies to the advisors students who are having academic difficulty or seem to be a high risk for failure. Faculty can enter the Web Advisor grading system and select from a group of codes that indicate what they see as the problem. The Registrar will use this code to trigger a message to the student via CampusCruiser and to the academic advisor for full-time students and a message to the department chairperson for part-time students.

STANDARDS OF PROGRESS

Students should check their academic status on CampusCruiser/WebAdvisor at the conclusion of each semester. Students are evaluated against the academic standards of progress and those students whose cumulative grade point average falls below 2.00 will receive a letter indicating their status at the conclusion of each semester.

Credit Courses

The consequences for students whose cumulative grade point averages (GPAs) fall below 2.00 are as follows:

- ***If a student has attempted no more than 11 credits,***
  Below 2.00 = Academic Warning

- ***If a student has attempted between 12 and 23 credits,***
  Below 2.00 = Academic Warning
  Below 1.60 = Academic Probation
  Below 1.00 = Academic Restriction

- ***If a student has attempted between 24 and 39 credits,***
  Below 2.00 = Academic Warning
  Below 1.80 = Academic Probation
  Below 1.60 = Academic Suspension

- ***If a student has attempted 40 or more credits,***
  Below 2.00 = Academic Warning
  Below 1.80 = Academic Suspension

- ***If a student has been readmitted following suspension or previous dismissal,***
  Below 2.00 = Dismissal for two years

Developmental Courses

- A student whose schedule includes developmental courses is expected to earn at least a 2.0 semester average, and a "C" or better in all developmental courses. Failure to do so will result in Academic Probation. Failure to earn at least a 1.00 semester average will result in Academic Restriction.

- A student on Academic Restriction or Academic Probation who, in a subsequent semester while still enrolled in developmental courses, fails to earn a 2.00 term average in all courses will be placed on Academic Suspension.

- A student who is on academic probation or restriction status cannot be downgraded to academic suspension or dismissal in any subsequent semester for which the term GPA is at or above 2.0. However, if a student is taking a developmental course in that semester, the student needs to achieve a grade of "C" or better in that semester for this allowance to apply.

Basis for Academic Dismissal

Academic Dismissal will occur when a student, who has been readmitted following Academic Suspension or previous Academic Dismissal, fails to maintain an overall GPA of 2.00 in the coursework taken subsequent to readmission.

Course Repeat Limitation and Academic Status

Students may attempt a course three times. Permission from the Academic Advising Office is required to enroll beyond three attempts.

Curriculum Suspension and Dismissal

In addition to the college-wide standards outlined above, individual programs may have stricter standards regarding continued enrollment in those programs *(see program requirements).*

ACADEMIC STATUSES

Academic Warning

Academic warning is an advisory statement to students that their present level of performance is below college standards.

Academic Probation

Students who have been placed on Academic Probation will be limited to 14 credits and credit equivalents or 4 courses. Additional limitations may include non-admittance to certain courses and/or required enrollment in one of the student enrichment courses. No student on academic probation may register without signed approval from the following: the department chair, the dean of the student's division or an advisor in the Advising Center.

Academic Restriction

Students who have been placed on Academic Restriction will be limited to 8 credits and credit equivalents or 2 courses. Additional limitations may include non-admittance to certain courses and/or required enrollment in the student success course. No student on academic restriction may register without signed approval from the following: the department chair, the dean of the student's division or an advisor in the Advising Center.

Academic Probation and Restriction

A student on Academic Probation or Restriction who has voluntarily not enrolled for the next semester will be placed on Academic Probation for the next semester in which she/he enrolls, with the permission of the dean of his/her division, or of the department chair or the Academic Advising Center.

If the student returns following the suspension period described below, he/she is placed on "Academic Probation."

Academic Suspension

Students who have been academically suspended are prohibited from enrolling at the College for a period that includes one fall or spring semester. A suspension at the conclusion of a fall semester includes both winter and spring semesters. A suspension at the conclusion of a spring semester includes both summer and fall.

Academic Dismissal

Students who have been academically dismissed are prohibited from enrolling at the College for a minimum period of two years. A student wishing to be reinstated following dismissal must submit a reinstatement appeal demonstrating his or her readiness to pursue college studies. An Academic Dismissal will occur when a student, who has been readmitted following Academic Suspension or previous Academic Dismissal, fails to maintain an overall GPA of 2.0 in the coursework taken subsequent to readmission.

ACADEMIC AMNESTY APPEAL

A student who had exhibited poor academic performance prior to an extended period of absence from the College may, following a successful return to the college, appeal to have the previously earned grades disregarded in calculating the GPA. Appeals should be submitted to the Academic Advising Center.

The following terms and conditions apply:

1. The GPA prior to the period of absence from the College must have been below 2.0.
2. A minimum of three years without Middlesex County College enrollment in credit and credit equivalent courses must have elapsed prior to re-enrollment.
3. A student must complete 18 credits following re-enrollment, with a minimum GPA of 2.0, prior to submitting the appeal.
4. No credits or grades earned prior to the period of absence will be counted in the calculation of the new GPA or credits toward graduation.
5. All courses and grades will continue to appear on the transcript.
6. An Academic Amnesty Appeal may be approved only once for any individual student and is irrevocable.

Note that a student receiving benefits from the Veterans' Administration will not be reimbursed for repeating courses which had already been passed. Note also that a student transferring to another college will be bound by that college's terms and conditions for accepting transfer credits.

ADMINISTRATIVE DISMISSAL

Students may be considered for dismissal from the college for the following causes:

1. Neglect of financial obligations.
2. Failure to comply with college rules and regulations or official notices.
3. Violation of the Student Code of Conduct.

The college reserves the right to be the sole judge in all matters pertaining to dismissal.

ACADEMIC APPEALS

Questions about a course grade should be directed to the course instructor first or to the department chair. All approved grade changes must be submitted to the Office of the Registrar within one year of the original grade assignment. Students may file a written appeal for an exception to an academic policy. They must be able to demonstrate that there are circumstances that warrant an exception. They should submit academic appeals to the academic dean of the division that administers the degree or certificate program in which they are enrolled. The academic dean may meet with the student to discuss the appeal. The decision of the dean is final. Appeal forms are available in the dean's office and in the Office of the Registrar.

Students' Rights and Responsibilities

STUDENT RESPONSIBILITIES

Acceptable Use Policy for Computer Facilities

The mission of Middlesex County College is to "provide access to an affordable, quality education for diverse students and to promote lifelong learning opportunities to strengthen the economic, social and cultural life of the community (p.3). Inherent in this purpose is to provide the college community, including faculty, staff, students and other authorized users, access to the computing resources needed to support academic and instructional activities required for effective learning. Access to these resources assumes they will be used in a professional, ethical and legal manner.

Implicit in the use of the College's computer resources is the user's obligation to abide by the following rules and regulations:

- Usage is limited to registered students, faculty, staff, administrators, employees or authorized guests.
- Each user is responsible for his or her own account which may not be shared or transferred to another individual.
- Accessing another individual's account is strictly forbidden.
- No one shall attempt to degrade the performance of the computer resources by: sending mass mailings, introducing computer viruses, using the facilities for commercial purposes, participating in interactive game playing or engaging in any other attempt to degrade the system.
- Each user must refrain from sending, printing, requesting, displaying or storing images, audio files, and/or other materials for purposes unrelated to the mission and goals of the college.
- No one shall attempt to circumvent any system security measure.
- No one shall violate copyright and/or software agreements.
- All federal, State and local laws will be adhered to when using the college's computing equipment.
- The college's computing resources may not be used for commercial purposes including solicitations on behalf of groups or organizations that are not related to the College.

The college will make every effort to ensure the integrity of the computer resources and the information stored on them. However, Middlesex County College is not responsible for the loss of information from computing misuses, malfunction of computing and networking hardware, malfunction of computing and networking software or external contamination of data or programs. (Reference Code of Student Conduct in the Pathfinder.)

Conduct

Expected standards of behavior have been established to provide for the maximum comfort, convenience, and well being of the entire Middlesex County College community. These standards are referred to as the Code of Student Conduct. The Code of Student Conduct and related policies and procedures are outlined in the Pathfinder, the student handbook for the College. Enrollment in the college confirms students' acceptance of exemplary standards of behavior and unqualified commitment to academic integrity.

Students who violate the College's behavioral norms will be subject to disciplinary action.

Dress

Students are expected to exercise good judgment with respect to attire worn in the classroom and on the campus. For reasons of safety, footwear is required.

Identification

Students will receive a photo identification card from the Office of Student Activities after they register for the first time. Students can use the card for library privileges, computer lab facilities, processing transactions in the Office of the Registrar and for admission to all athletic events, social activities, and other college functions. Therefore, students must carry their identification card with them whenever they are on campus. Students who need to replace the card will be charged a replacement fee.

Animals on Campus

Animals are not permitted in college buildings. Exceptions will be made for those animals assisting disabled individuals, those related to a classroom requirement and all campus residences.

Transportation

Students are responsible for arranging their own transportation to and from the campus. Public transportation is available. Copies of bus schedules are in the Office of Student Activities. Students may want to arrange to travel in car pools with other students.

Parking

The college is designed as a compact walk-on campus with perimeter parking. Students may park in any white-lined space.

Students with state handicapped plates or placards will be allowed to park in the designated parking areas/spaces for persons with disabilities. The placards must be displayed so they are readily visible.

College Police

The College Police are authorized to enforce all regulations regarding parking and traffic and to issue citations for violations.

Living Accommodations

The college does not maintain dormitories. Students who live away from home while enrolled at Middlesex are responsible for arranging their own living accommodations.

STUDENT RIGHTS

Access to Student Records - Family Educational Rights and Privacy Act of 1974

Middlesex County College informs students of the Family Educational Rights and Privacy Act of 1974 (FERPA). This Act, with which the college complies fully, was designed to protect the privacy of educational records, to establish the right of students to inspect and review their educational records, to challenge the contents of their educational records, to have a hearing if the outcome of the challenge is unsatisfactory, to submit an explanatory statement for enclosure in the record if the outcome of the hearing is unsatisfactory, to prevent disclosure, with certain exceptions, of personally identifiable information and to secure a copy of the college policy, which includes the location of all educational records. Students also have the right to file complaints with the Family Educational Rights and Privacy Act Office (FERPA), Department of Education, Room 4511, Switzer Building, Washington, D.C. 20202, telephone 202.655.4000, concerning alleged failures by the College to comply with the Act.

Institutional policy explains in detail the procedures to be used by the College for compliance with the provisions of the Act. Copies of the policy are available in the Office of the Registrar, which also maintains a directory of records that lists all educational records maintained on students by the college.

Questions concerning the Family Educational Rights and Privacy Act may be referred to the registrar.

Directory Information

Middlesex County College hereby designates the following categories of student information as public or "Directory Information." Such information may be disclosed by the College at its discretion.

- ***Category I*** - Name, program of study, full- or part-time enrollment status, dates of enrollment, date of actual or anticipated graduation, degree earned, and any honors received.
- ***Category II*** - Email addresses, photographic images, postal address, i.e., city, town, or township and state, but not including street address, to be released to the Department of Marketing and Public Information for the purpose of media distribution.
- ***Category III*** - Current address, telephone number to be released to College Police, for the purpose of investigation of campus traffic violations, and encumbrance of student transcripts in connection with violation charges and by government agencies when required.
- ***Category IV*** - Permanent home address to be released by the International Student Advisor, in compliance with appropriate and necessary institutional reports.
- ***Category V*** - Name, address, telephone number, program of study, enrollment status (full-time or part-time), dates of enrollment, date of actual or anticipated graduation, degree earned, and any honors received to be released to college affiliated corporations for their exclusive use.

Currently enrolled students may withhold disclosure of any category of information under the Family Educational Rights and Privacy Act of 1974, except Middlesex County College shall disclose education records as required by law and as indicated under "Disclosure of Identifiable Information."

To withhold disclosure, written notification must be received in the Office of Registrar. Forms requesting the withholding of directory information are available in that office. Middlesex County College assumes that failure on the part of any student to specifically request the withholding of categories of "Directory Information" indicates individual approval for disclosure.

CODE OF STUDENT CONDUCT

In order to provide for the maximum safety and well-being of the total college community, including guests, certain standards of behavior have been established at Middlesex County College. Upon admission to the College, all students accept an unqualified commitment to adhere to such standards and to conduct themselves in a manner that reflects pride in themselves and the College. These standards of conduct will apply to students engaging in College sponsored activities both on and off campus. Conduct that adversely affects a student's responsible membership in the academic community shall result in appropriate disciplinary action. The College will not tolerate deliberately disruptive behavior, violence, or physical interference with the rights of any member of the college community.

The Code of Student Conduct outlines behavior deemed unacceptable at Middlesex County College. Infractions of the Code include, but are not limited to, the actions listed below.

1. Unauthorized use or possession on the campus of weapons, ammunition, explosives, fireworks, or other dangerous substances or materials.
2. Threatening or inflicting bodily harm or physical abuse or injury to the person of a fellow student, faculty or staff member, administrative officer or guest of the College.
3. Obstruction or disruption of teaching, learning, research, administration, discipline procedures or other college authorized event. Disruptions of teaching and learning which may include tardiness, offensive language or behavior, noise and improper use of personal communication devices (e.g.: cell phones, headphones, pagers, PDAs and laptops).
4. All forms of academic dishonesty, including cheating, facilitating academic dishonesty, and plagiarism or assisting others to engage in those activities.
5. The failure to report any action or plan of dishonesty whether knowledge of such act or plan is obtained directly or indirectly.
6. The soliciting of assisting another to do any act which would subject a student to probation, suspension or expulsion.
7. Unauthorized distribution, use or possession of any substance constituting a "controlled dangerous substance" within the meaning of the New Jersey Controlled Dangerous Substance Act, N.J.S.A. 24:21-1 et seq., or any illegal drug on college property or at college sponsored activities.
8. Failure to comply with the College's policy on smoking.
9. Illegally gambling on college property.
10. The violation of any of the criminal statutes of the State of New Jersey, which violation occurs either on the campus, at off-campus sponsored events, or which directly affects the college community. The college will cooperate fully with any law enforcement agency investigating such violations.
11. Falsification, alteration or withholding information related to records or documents maintained by the College.
12. Theft, misappropriation, vandalism, non-accidental damage, grossly negligent damage or arson to any College property or private property of a fellow student, faculty or staff member, administrative officer or guest of the college.
13. Failure to present student identification to a College employee in response to a request.
14. Unauthorized entry into any secured building or facility, obstructing access to any campus building or facility, the unauthorized use or occupation of any classroom, public or common indoor areas, recreational or athletic facility, faculty office or any other components of the College's physical plant or property.
15. Failure to register the dissemination of printed material or unauthorized display of posters and advertising material.
16. Abusive or unauthorized use and operation of outdoor and indoor sound systems, public address systems sound tracks, or bull horns.
17. Unauthorized consumption and/or unauthorized possession of alcoholic beverages on campus.
18. Failure, after a warning, to wear adequate clothing and foot covering while attending classes or utilizing any campus facility.
19. Consumption of food and beverages outside of authorized areas unless authorization has been given by a faculty member, staff or administrator.
20. Soliciting or assisting another to do any act which would subject that student to any sanction within the Code of Student Conduct.
21. A failure to abide by the "Acceptable Use Policies for Computer Facilities."

22. It is the policy of this College that membership in secret fraternities or sororities or in other clubs or gangs not sponsored by established agencies or organizations are prohibited. Organizations which initiate, advocate or promote activities which threaten the safety or well being of persons or property on college grounds, which disrupt the program environment or are harmful to the educational process are prohibited. Activities involving initiations, hazing, intimidation, and/or related actions of such group affiliations which are likely to cause bodily danger, physical harm, personal degradation or disgrace resulting in physical or mental harm to students are prohibited. Any student causing and/or participating in activities which intimidate or adversely affect the attendance of another student or staff member will be subject to disciplinary action.

23. Engaging or the soliciting of any activity which would interfere with the normal operation of the College.

Sanctions

The various penalties for the commission of a violation are set forth hereafter. Upon a finding of or plea of guilty for any violation, one or more of the listed sanctions may be imposed independently or cumulatively.

a. **Warning:** Notice, orally or in writing, that continuation or repetition of conduct found wrongful may be cause for more severe disciplinary action.

b. **Probation:**
   1. Exclusion from participation in privileged or extracurricular College activities for a period not to exceed 1 year.
   2. Fine, restitution and or community service not to exceed 50 hours and/or counseling services as may be required.

c. **Disciplinary Suspension:** Temporary separation from the College for a period of time not to exceed two years.

d. **Dismissal:** Permanent separation from the College for all programs academic or extracurricular.

e. **Administrative Suspension:** The vice president for academic and student affairs or her/his representative shall have the authority and responsibility to assure the well being of the college community and to insure the College's ability to carry out its mission. To provide for this environment, any act or threat which, in the opinion of the vice president for academic and student affairs, endangers any individual, or which results in terrorizing any member of the College community or guests may warrant immediate suspension.

   Similarly, any act which may result in the disruption of College activities or inciting others to disrupt college activities or interference with the right of any member of the College from performing assigned duties or attending class may also warrant immediate suspension.

   The suspension shall remain in effect until the vice president for academic and student affairs receives evidence that the presence of the accused does not pose a threat to any member of the College community.

STUDENT GRIEVANCE PROCEDURE

Students are encouraged to discuss their concerns with the faculty member involved or with their academic advisor, prior to presenting a formal grievance. Whenever a student brings a grievance against a faculty member to the attention of a college administrator, the following procedure will be followed:

1. Should the student grievant so request, the time sequence outlined below will be extended to the end of the semester.
2. The administrator shall inform the faculty member of the nature of the allegation prior to conducting an investigation.
3. Upon investigation, if the administrator or his or her designee finds probable cause, but the nature of the grievance is not of a serious nature to warrant disciplinary action, the administrator will attempt to resolve the matter informally.
4. If the administrator or his or her designee finds probable cause and the nature of the grievance is of a serious nature to potentially warrant disciplinary action, the administrator shall advise the faculty member, the Union and the dean of the nature of the complaint and the name of the grievant.
5. The dean of the division shall complete the investigation and hold a hearing within fifteen (15) school days. Following the hearing, the dean shall, within ten (10) school days, render a final decision.

Students may appeal the decision of the division dean to the vice president for academic and student affairs of the College.

SEXUAL HARASSMENT POLICY

Middlesex County College reaffirms its desire to create an academic/work environment for all students, faculty and staff that is not only responsible but supportive and conducive to the achievement of educational/career goals on the basis of such relevant factors as ability and performance. All students, faculty and staff at Middlesex County College have the right to expect an environment which allows them to enjoy the full benefits of their work or learning experiences.

Therefore, it is the policy of the College to prohibit sexual harassment from occurring at the College or at any other location where a College-sponsored event takes place. The purpose of this policy is not to regulate personal morality or to encroach upon one's personal life, but to demonstrate a strong commitment to maintaining a working and learning environment free of harassment.

Sexual harassment is prohibited by the Civil Rights Act of 1964, Title VII, Section 703, and by the Educational Amendment of 1972, Title IX. Middlesex County College intends to abide by the law. Immediate and appropriate corrective action will be taken should any student, faculty member, staff or administrative employee who engages in behavior contrary to this policy or who engages in any form of retaliation against individuals who report unwelcome conduct or who cooperate in the investigation of such reports in accordance with this policy.

The complete Sexual Harassment Policy and complaint procedure is available in the Library, the Pathfinder, and the Office of Labor Relations. Complaints should be directed to director of labor relations in Chambers Hall.

Academic Programs Index

It is important that students find the right college major to achieve their career and educational goals. Use this chart to determine which major fits each area of interest.

CHECK COURSE DESCRIPTIONS FOR A COMPLETE LIST OF PREREQUISITES OR COREQUISITES.
STUDENTS SHOULD MEET WITH AN ACADEMIC ADVISOR TO PLAN THE BEST ORDER IN WHICH TO TAKE COURSES.

The College in Brief

COLLEGE GOVERNANCE

Students may participate in college governance via the College Assembly, its task forces, and the Academic Divisional Councils. Academic policy, student life, and college affairs are all areas in which students have a voice in the decision-making process.

COLLEGE ASSEMBLY

The College Assembly is the college-wide body of students, faculty, staff and administrators charged to make recommendations to the president regarding academic, student and other college affairs. Students, chairs/directors and faculty members of the assembly are nominated and elected through the divisional councils and appointed by the chair of the assembly.
Students interested in participating in the assembly should contact the assembly chair (through the office of the assembly, Raritan Hall Room 122, 732.906.4239, or ext. 4239 from a campus phone), the chair of his or her divisional council or the division dean. The assembly meets on the first Thursday in October, November, December, February, March, April and May.

TASK FORCES

Task Forces are committees of the College Assembly established to address specific issues. The standing task forces of the College Assembly include: Academic Standards, Accessibility for Persons with Disabilities, Bylaws, Campus Diversity, Campus Life, Community Concerns, Curriculum, and Educational Resources. The assembly also recommends the appointment of students to the Retail Services Corporation, Alcohol Review Board, Judicial Board and Traffic Appeals Board. Students interested in participating in any of these task forces or other organizations should contact the chair of their divisional council or their division dean. Student elections for these governance positions are held annually in February by the respective divisions.

COLLEGE ACTIVITY HOURS

College Hour

The College Hours are times when meetings of student clubs, the College Assembly, as well as other meetings and activities, are scheduled. Generally, no formal classes are scheduled at these times: Monday from 11:15 a.m. to 12:10 p.m. and Thursday from 2 to 3:20 p.m.

ALUMNI ASSOCIATION

All graduates of degree or certificate programs at the College, and students who have completed 60 credits, are automatically members of the Alumni Association, an organization uniting more than 40,000 Middlesex County College alumni throughout the world.

The organization coordinates social functions and association meetings. The Association's newsletter provides members with news about their classmates and developments at the College.

An Alumni Scholarship Fund has been developed for dependents of Middlesex County College alumni. Applications are available through the Middlesex County College Office of Alumni Affairs. Governed by a Board of Trustees comprising members elected by the alumni, the Alumni Association's day-to-day activities are conducted by the Office of Alumni Affairs in the Marketing & Public Information Department. *For further information, e-mail:* ***alumni@middlesexcc.edu.***

MCC FOUNDATION

The Middlesex County College Foundation was formed in 1966 to raise private support for the college and its students. The Foundation's mission is "to help students open doors to their futures with financial aid, scholarships and educational resources." The Foundation seeks to inspire the community and invest in the academic and career goals of students, which in turn empowers them to become community leaders.

Over the years, the Foundation has provided $8.3 million in scholarships, financial aid and grants benefiting 11,400 students. In 1984, the Foundation established an endowment fund to provide a perpetual source of scholarship support. The endowment now stands at $9 million. Approximately 650 students receive financial support from foundation efforts annually.

The Foundation believes in the value of making an affordable, accessible and quality education available to the community. It has the strong support of more than 60 dedicated members of its Board of Directors and Trustees. It also invites alumni, individuals, small businesses, corporations and foundations to join in supporting its mission.

The Foundation also holds two fund raising events annually: the Scholarship Ball and the Scholarship Golf Classic. Proceeds from these events along with other generous private contributions make it possible for the Foundation to provide needed assistance to an increasing number of deserving MCC students annually.

Expenses, Financial Aid and Scholarships

RESIDENCY POLICY

A student's residency status determines the amount of his or her tuition and fees. Students maintaining a permanent domicile in New Jersey for at least 12 months **and** permanent domicile in Middlesex County for at least 30 days immediately prior to the first day of classes are defined as Middlesex County residents and are entitled to the in-county tuition rate.

Independent students are those who are:

1. 24 years of age by January 1 of the award year;
2. A veteran of the U.S. Armed Forces
3. Married
4. Wards of the court or whose parents are deceased
5. Claiming legal dependents, other than a spouse, as defined by the Internal Revenue Service.

■ A dependent matriculated student who has been determined to be a New Jersey resident shall continue to be eligible for the in-county tuition rate despite a change of domicile to another state by the student's supporting parent(s) or guardian(s) provided that the student maintains New Jersey residency during each academic year of enrollment.

■ United States military personnel and their dependents living in New Jersey and enrolled at the College shall be regarded as residents of New Jersey for the purpose of determining tuition.

The following documents may be submitted to the Office of the Registrar to verify permanent residency in the county.

Evidence of Residency

i. Sign and submit the Middlesex County College Residency Documentation Form (available from the website and from the Registrar's Office); stating his or her residence.

ii. Two of the following documents:
   a. Original current lease or deed
   b. Recent property tax bill
   c. Current utility bill
   d. Current credit card statement
   e. A signed Voter Registration Certificate
   f. Valid New Jersey motor vehicle license or registration.
   g. Two pieces of current business mail sent from an address other than the College to the student at the Middlesex County residential address
   h. Where none of the verifying documents listed in (a) through (g) are available, a notarized affidavit shall set forth the place and commencement date of permanent residence, relationship to the owner of the property, and the term of any lease.

iii. A student under 24 years old, claiming himself or herself for tax purposes, and not living with his or her parents or guardian must submit:
   a. A copy of his or her most recent New Jersey income tax form
   b. A copy of his or her parent's/guardian's most recent New Jersey income tax form

INTERNATIONAL STUDENTS

Non-Immigrant Alien Students whose permanent domicile is outside the United States and its possessions are defined as out-of-state residents.

CHARGEBACK

Middlesex County residents who are taking courses at another community college in New Jersey may have a portion of their tuition paid through the Chargeback process. Middlesex County residents may obtain a Chargeback application from the Office of Admissions. Chargeback applies to students who are matriculated at another NJ community college in a degree program not offered at Middlesex County College or for non-matriculated students in a course(s) not offered at Middlesex County College. To be eligible, students must submit the Chargeback application along with two forms of identification showing permanent domicile in Middlesex County and college placement test scores/transcripts indicating completion or exemption from at least two of the three areas of remediation (English, math, reading). Matriculated students will be evaluated on a program-to-program basis. Non-matriculated students will be evaluated on a course-by-course basis. Applications for chargeback from Middlesex County residents must be received within 30 days of the start of the semester. Non-Middlesex County residents who wish to attend Middlesex County College may also be eligible for Chargeback through their home community college.

SENIOR CITIZENS TUITION WAIVER

Middlesex County residents who are 65 years or older may take any course on a space-available basis and have the tuition waived. Senior citizens who have been admitted to a degree or certificate program at Middlesex may register during the normal registration period. However, senior citizens who have not declared a major cannot register until the late registration period begins, typically two days prior to the start of classes. The College will waive the late registration fee. They will be responsible for paying all other fees and related expenses, including student activity fees, general fees, technology fees, course and laboratory fees, books and all other college fees.

VOLUNTEER TUITION WAIVER

Volunteer firefighters, first aid or rescue squad members or their spouse or dependent child may qualify for a tuition waiver and may take any course on a space-available basis. To be eligible, volunteers shall agree to serve as a member volunteer for a minimum of four years. Following each year of volunteer service performed, the person or family member is entitled to receive a maximum of $600 per academic year of tuition credit. The cumulative maximum tuition credit is $2,400. The student must complete a waiver form available in the Bursar's Office each semester. All remaining expenses must be paid by the regular due date. The student must maintain a minimum 2.0 GPA.

EXPENSES

The tuition and fees and other expense amounts below are provided for informational purposes for 2008-2009 and are subject to change.

Tuition and Fees

The college reserves the right to change these rates for subsequent semesters.

- Tuition
  - Middlesex County Residents .....$91.00 per credit or credit equivalent
  - Out of County Residents .....$182.00 per credit or credit equivalent
- Fees

General Service
- Middlesex County Residents .....$16.00 per credit or credit equivalent
- Out of County Residents .....$32.00 per credit or credit equivalent

Student Service
- Middlesex County Residents ..... $3.50 per credit or credit equivalent
- Out of County Residents .....$7.00 per credit or credit equivalent

Technology
- Middlesex County Residents .....$11.00 per credit or credit equivalent
- Out of County Residents .....$22.00 per credit or credit equivalent

General Expenses

- Course Fees .....$30 to $250

  Per course with clinical, laboratory, computer, or other appropriate non-replaceable materials including energy uses. Refer to the schedule bulletins for specific information.
- Registration Fee Fall/Spring..... $25.00 per semester
  Winter/Summer $15.00
- Insurance

  Accident/Health and Sickness .....$68.00 per year

  Required of students registering for 12 or more credits. Students who are covered by their own insurance policy can have the fee waived. The form can be obtained from the Bursar's Office. The waiver must be returned within 10 days from the first day of class or the fee is non-refundable.

  Clinical Liability $36.00

  Mandatory annual fee for students enrolled in Dental Hygiene, Dietetic Technology, Medical Laboratory Technology, Nursing, Psychosocial Rehabilitation, Respiratory Care or Radiography Education courses with clinic requirements.

Miscellaneous Fees

These miscellaneous fees are non-refundable.

Application Fee $25.00

Curriculum Change Fee $10.00

Late Registration Fee $40.00

Begins two weeks immediately prior to the first day of classes and continues through the registration period.

Graduation Application Fee $40.00

Students pay this fee only once for each degree or certificate awarded.

Dishonored Check Fee .....$25.00 per dishonored check

Reinstatement Penalty Fee .....$85.55 per credit

Students who attend class without being properly registered may be subject to a $91.00 per credit late registration penalty.

Special Fees

- International Student Fee

  All international students must pay .....$300.00 per semester

  Fall and Spring semester only
- Dental Hygiene Senior Students Licensing Examination Fees

  National Board Examination .....$150.00 (approximately)

  North East Regional Board .....$850.00 (approximately)

  New Jersey License $150.00
- Advanced Placement-Nursing

  Phase I $65.00

  Phases II and III $135.00

Books and Supplies

These charges are approximate and subject to change.

- Automotive Technology

  Tools $1,800.00
- Dental Hygiene

  Instrument Kit .....$1,700.00 (approximately)

  Uniform .....$200.00 (approximately)
- Dietetic Technology

  Knives .....$20.00 (approximately)

  Uniform $100.00

  Criminal Background Check ..... $45.00 (approximately)
- Engineering Program

  Drawing Kits $50.00
- Hotel, Restaurant and Institution Management

  Knives .....$20.00 (approximately)

  Uniform $100.00
- Media Arts & Design

  A camera with adjustable shutter speed and aperture settings and a non-automatic metering system is required. A secondhand camera in good working condition meeting these specifications may be used.

  Art and photographic equipment and supplies $125.00
- Medical Laboratory Technology

  Uniform $45.00
- Nursing-Joint Program with RBMC

  Uniform $100.00
- Radiography Education

  Uniform .....$200.00 (approximately)
- Respiratory Care

  Uniform $100.00

Middlesex County College Fitness Club Rates

- Middlesex County College Students (full and part time)

Individual

Fall or Spring Semester $25.00

Summer Session $15.00

Winter Session $10.00

Family

Fall or Spring Semester $70.00

Summer Session $45.00

Winter Session $25.00

- Adjuncts, Retirees & Grant Personnel

Individual

Annual $100.00

Family

Annual $260.00

- All Full-Time Employees, Trustees and HS Academy Instructors

Individual

Annual .....FREE

Family

Annual $260.00

- Middlesex County College Alumni

Individual

Annual $130.00

Family

Annual $330.00

Family membership will be limited to the individual and three (3) additional family members living in the household. The above rates will be prorated as appropriate for alumni, full-time faculty, staff and grant personnel with contracts of less than one year. Adjuncts must be at the college for four (4) consecutive semesters in order to apply.

Other Athletic Fees

- Swimming Pool

The general public is charged $5.00 per person per session. Children 5 years of age and under are free. 16 years old and under need a parent/guardian in a bathing suit on the pool deck to enter the pool. There is a ratio of two (2) children to one (1) adult.

Rentals-School $70.00/hour

Community nonprofit and county organizations $80.00/hour

Other groups $100.00/hour

- Weight Room .....before 4 p.m. free/after 4 p.m. see PE Center

  Children under 16 are not permitted in the weight room.
- Racquetball Courts

  Monday-Friday

  7 a.m. - 4 p.m. .....$10.00/hour Middlesex County College community
  $10.00/hour general public

  4 - 9 p.m. .....$10.00/hour Middlesex County College community
  $20.00/hour general public

  Saturday .....$10.00/hour Middlesex County College community
  $20.00/hour general public

  Each participant is entitled to play with one free guest. Additional guest will be charged $2.00 each. Middlesex County College community members include registered students charged the student service fee, full-time employees and adjuncts.

PAYMENT POLICY

All tuition and fees must be paid on or before the date shown on the class schedule/invoice. If an employer pays the tuition, the student must submit an employer tuition voucher prior to the payment due date. ***Students are obligated for the payment of tuition and fees regardless of whether or not they attend class, unless a completed withdrawal form has been submitted to the Office of the Registrar.***

Overdue accounts will be referred to a collection agency and all collection costs and fees will be added to the account. If the account is overdue, the student will be prohibited from registering and official transcripts will not be released.

ENCUMBRANCE POLICY

The records of students who owe the College money will be encumbered. Requests for transcripts and graduation applications will be processed only for those students who have satisfied all financial obligations to the College. Students with past due accounts will be referred to a collection agency. The collection agency's fee will be added to those students' existing financial obligation. Final grades will be withheld and registration for future semesters will not be permitted until the debt is satisfied. Students may appeal their situation to the Bursar.

FINANCIAL APPEALS

Students may file a written appeal for an exception to tuition and fee refund policies. The Tuition Appeals Committee will consider appeals in the case of serious illness or death of a family member, and requires that proper supporting documentation be submitted with the appeal. Financial appeals should be submitted to the Office of the Registrar for review by the committee. Appeal forms are available in the Office of the Registrar. Financial appeals must be submitted within 30 days of the last day of the semester related to the appeal.

REFUND POLICY

To be eligible for a refund, students must officially drop individual classes, or all classes, prior to the dates specified below.

Students who withdraw prior to the first day of classes will receive a full (100 percent) refund of tuition and fees, except the non-refundable late registration fee. The first day of class is the first day classes are in session for a given semester, not the first day a particular course meets.

A student who withdraws prior to the first day of the second week of classes will receive a 75 percent refund of all tuition and fees, except the non-refundable late registration fee.

A student who withdraws prior to the first day of the third week of classes will receive a 50 percent refund of all tuition and fees, except the non-refundable late registration fee.

Check the schedule bulletin for specific withdrawal deadlines for each semester. Summer and Wintersession rules vary.

Appeals regarding the College's refund policy must be filed no later than 30 days after the last day of classes for the semester being appealed. Appeals must be documented and submitted to the Office of the Registrar. The Tuition Appeals Committee will review all appeals.

FINANCIAL AID REFUND POLICY

Federal regulations require that the College must calculate refunds using federal guidelines for all financial aid students who withdraw before completing the enrollment period for which they were charged.

Financial aid students who withdraw prior to the 60% point of the semester will have their aid recalculated following federal and state requirements. Students who receive midterm grades of all "Fs" will be treated as unofficial withdrawals and these students' aid awards and loans will be recalculated. Recalculations may result in the student owing a refund to MCC.

Financial aid students who withdraw after the 60% point of the semester will not have their aid reduced.

The college's Business Office will return the undisbursed student loan check to the lender for any borrower who has not met loan requirements, who has fewer than six credits or who has withdrawn completely from the College. If the loan has been disbursed, the College will use federal regulations to determine the amount to be returned to the lender.

FINANCIAL AID

Middlesex County College makes every effort through its financial aid programs to overcome financial barriers that may prevent students from completing their education. Funds from federal, state and College sources are available to those who demonstrate need and meet eligibility requirements. Loans must be repaid, but grants need not be repaid. Students with a bachelor's degree are not eligible for federal and state grants but may apply for student loans.

All applicants for federal, State, and college aid must complete the Free Application for Federal Student Aid (FAFSA). Students may apply electronically through the Internet at **www.fafsa.ed.gov.** Students may also mail their FAFSA to the Processing Center but allow four extra weeks for processing.

The FAFSA must be filed each academic year. Apply as early as possible; applications become available each January. Financial Aid students must also complete a Financial Aid Authorization form available at the Financial Aid Office. Students must also be accepted into an eligible academic program of study. Students should apply by May 1 to ensure priority processing especially for limited campus aid funds.

The federal processing agency takes the information provided on the FAFSA and determines each applicant's family contribution using a federal methodology formula. The NJ Higher Education Student Assistance Authority receives the FAFSA information from the Federal agency and calculates the student's eligibility for State funds using a State formula. Financial need is computed by subtracting the federal family contribution figure from the student's cost of attendance. Data verification may also be required.

The Financial Aid Office reviews applications and documents and develops appropriate financial aid packages for eligible students. An aid package may include a combination of grants, loans and part-time employment.

Eligibility is determined by the requirements of each aid program. The Financial Aid Office monitors the academic progress of financial aid recipients, and terminates aid awards if students do not demonstrate satisfactory academic progress (SAP). Federal aid will not fund more than 30 credits of developmental courses. State aid will not fund more than five semesters of attendance at the community college level.

For further information, call the Financial Aid Office at 732.906.2520. Consumer information is available upon request, or on the College's website. The address for financial aid consumer information is **www.middlesexcc.edu/financialaid.**

FINANCIAL AID PROGRAMS

Student eligibility for the following programs is based on the specific requirements of the program as well as evidence that the student is making satisfactory academic progress toward a degree. Students apply for these programs by completing the Free Application for Federal Student Aid (FAFSA).

FEDERAL GRANTS

Pell Grant Program

- Awards range from $200 to $4,310.
- The U.S. Department of Education uses a standard formula to determine student eligibility.
- The student is notified via a Student Aid Report (SAR).

Academic Competitiveness Grant

- Awards range from $375 to $1,300.
- The college determines eligibility based on federal regulations.
- The student is notified via an award letter from the College and on CampusCruiser.

Supplemental Educational Opportunity Grant

- Awards range from $250 to $1,000.
- The college determines eligibility based on federal guidelines.
- The student is notified via an award notice from the College.

NEW JERSEY GRANTS

Tuition Aid Grant (TAG)

- Awards range from $183 to $2,200.
- The NJ Higher Education Student Assistance Authority uses a State formula to determine eligibility.
- The student is notified via a Student Eligibility Notice (SEN) from the State.

Educational Opportunity Fund Program

- Awards range from $526 to $1,050.
- The college uses State guidelines to determine eligibility.
- The student is notified via a Student Eligibility Notice (SEN) from the State.

Garden State Scholarship Program

- Awards range from $200 to $900.
- The NJ Higher Education Student Assistance Authority uses academic achievement guidelines to determine recipients.
- The student is notified via a Student Eligibility Notice (SEN) from the State.

MIDDLESEX COUNTY COLLEGE GRANTS

Middlesex County College Foundation Grants

- Awards range from $200 to $1000.
- The College uses Middlesex County College Foundation guidelines to determine eligibility.
- The student is notified via an award notice from the College.

Educational Opportunity Fund Program

- Awards range from $526 to $1,050.
- The college uses Middlesex County College Foundation guidelines to determine eligibility.
- The student is notified via an award notice from the College.

Garden State Scholarship Program

- Awards range from $200 to $900.
- The NJ Higher Education Student Assistance Authority uses academic achievement guidelines to determine recipients.
- The student is notified via a Student Eligibility Notice (SEN) from the State.

FEDERAL WORK STUDY PROGRAM

Federal Work Study Program

- Awards range from $500 to $4,000.
- The College uses federal guidelines to determine eligibility and places students in part-time on-campus jobs.
- The student is notified via an award notice from the College.

FEDERAL STAFFORD LOAN PROGRAM

- Loans range from $500 to $8,500.
- The NJ Higher Education Student Assistance Authority approves the loan after the college uses federal guidelines to determine eligibility.
- The student is notified via a letter from the lender.

Stafford loans are made through banks or other lending agencies and are repaid after the student leaves college. The interest rate is variable for repayment of new loans but not higher than 8.25 percent. The government pays the interest during in-school periods on need-based loans called subsidized Stafford loans. The student is responsible for all interest on non-need-based loans called unsubsidized Stafford loans. In addition to completing the FAFSA, a Master Promissory Note and an entrance interview form must be completed. Contact the Financial Aid Office for loan application information. Information about the current terms of the program is available at the time of application.

OTHER SOURCES OF ASSISTANCE

Part-Time Jobs

Many students work part-time in the surrounding area. *The Middlesex County College Career Services Office can assist in locating part-time jobs. Call 732.906.2595.*

Cooperative Education

Students in most majors may have the opportunity to gain work experience in their fields while earning money to help finance their college costs. *Contact the college's Career Services Office for further information at 732.906.2595.*

Outside Scholarships

Many organizations award scholarships. If a student's family is affiliated with a community or religious organization, the organization may be contacted to see if it offers scholarships. Many companies will help employees or children of employees finance their education. *Students may contact their employer or their parents' employers and ask if they have tuition assistance programs.*

Middlesex County College Scholarships

Middlesex County College awards several full-time scholarships each year for academic excellence. These awards are based on merit rather than financial need. Students graduating from Middlesex County high schools may apply. *Contact the Office of Admissions and Recruitment for further information.*

Electronic Sources of Financial Aid Information

The following addresses provide on-line information about financial aid publications, scholarship information and general financial aid application assistance.

- A Guide to Financial Aid Information & Assistance from the US Government
  http://www.finaid.org
- National Association of Student Financial Aid Administrators
  http://www.NASFAA.org
- HESAA (Higher Education Student Assistance Authority)
  http://www.hesaa.org

PROMISSORY NOTE - FINANCIAL AID APPLICANTS

Admitted students applying for financial aid and unable to pay tuition due to unusual circumstances will be considered for a promissory note according to the following procedures:

1. The student must sign the statement of responsibility for financial obligations located on the Financial Aid Authorization form. A student's signature on this statement indicates that the student promises to pay all charges if financial aid is not processed, or is rejected or denied.
2. The results of a completed Free Application for Federal Student Aid (FAFSA) must be received by the Financial Aid Office before determination.
3. Students applying for Federal Stafford loans and parents applying for Federal Parent Loans (PLUS) must submit evidence of loan processing.

The promissory note allows students a grace period of 30 days before payment of the term bill is required. Students who have already received financial aid awards will have their financial aid credited automatically toward their bill.

Students not satisfying their bill with financial aid must make payment at the end of the note period. Special circumstances may warrant the note being extended.

Scholarship Opportunities

MIDDLESEX COUNTY COLLEGE FOUNDATION - HELPING STUDENTS ACHIEVE THEIR DREAMS

The Middlesex County College Foundation currently administers a total of 95 different named endowed and annual scholarships. Additionally, it provides annual grants between $230,000 and $250,000 annually to the Financial Aid Department. The Financial Aid Department screens financial aid applicants and makes individual awards to those with the greatest degree of documented financial need. The Financial Aid Department also screens students who meet academic requirements and criteria for many named scholarships established specifically for students with documented financial need. Since 1967, more than $8.3 million in financial aid, scholarships and grants have benefited more than 11,400 students. Not all scholarships listed below are available every year. For additional eligibility requirements and restrictions and further information on how to apply, please refer to the scholarship brochure and application, which are available in the Middlesex County College Foundation office in Center IV. *Call 732.906.2564 or visit the Foundation's website,* **www.mcc-foundation.org**.

MIDDLESEX COUNTY COLLEGE FOUNDATION ELIGIBILITY HIGHLIGHTS

Academic Excellence Scholarship
Entering student from High School with outstanding academic achievement. Scholarship is renewable second year if student maintains a 3.0 GPA.

The Accounting Financial & Tax Professionals of NJ Annual Award
Departmental award for accounting students presented at the spring awards ceremony.

Maris and Mary Alexander Memorial Endowed Scholarship
Student with financial need who is a resident of Middlesex County and is majoring in Nursing.

Americana Hospitality Group Annual Scholarship
Awarded in spring to a culinary art student with a 3.5 GPA or better. Student must live in Edison, East Brunswick or East Windsor.

Dr. John A. Bakum Endowed Scholarship
Older MCC students who are overcoming major life challenges such as divorce, drug or alcohol rehabilitation, history of incarceration, death of a spouse, etc.

Dr. Bori Berkow Memorial Endowed Scholarship
To be determined.

Bernard Family Scholarship
Participant in Franklin Township Pop Warner, Inc., and has demonstrated civic involvement.

Professor Paul Bhatia Award
Award presented in the spring to a student with financial need who demonstrates excellence in Computer Science.

Blaha Battaglia Family Scholarship
Preference given to a student who has demonstrated academic merit and who has financial need.

Suseela D. Botlagudur, M.D. Endowed Scholarship
Student enrolled in a Health Technologies major with preference given to a female, minority student who has financial need.

Mary Braun Memorial Scholarship
To be determined.

Bristol-Myers Squibb Company Scholarship
Preference given to Psychosocial Rehabilitation students, nursing students with interests in oncology care and other nursing students.

Zoraida Calvo Scott Endowed Scholarship
Full-time student residing in Middlesex County who is active in the Hispanic-American Club. Student is ineligible for Financial Aid, but has demonstrated financial need.

The Central New Jersey Chapter of Links, Inc. Annual Links Scholarship
African American female who is a recent High School graduate (age 25 or younger) with a 2.5 GPA or better. Student is ineligible for Financial Aid, but has demonstrated financial need. Community service participation and proven leadership skills.

Robert J. and Elaine L. Ciatto Endowed Scholarship
Full- or part-time student who was raised by a single parent, with financial need who has completed 12 or more credits and has a 2.5 GPA or better.

Larry L. Cohen Endowed Scholarship
Minority student with financial need and a 3.0 GPA or better in humanities or social science curriculum.

College Center Planning Board Scholarship
To be determined.

Gale Cooperstein Annual Scholarship
Dental Hygiene student who has returned to school after a five-year lapse in formal education and who has financial need.

The Csizmarik Family Endowed Scholarship
Accounting or business majors with financial need.

Rose Channing Danzis Endowed Scholarship
Health Technologies students with financial need.

Dr. Sidney Danzis Memorial Scholarship
Health Technologies students with demonstrated academic merit and a 3.0 GPA or better.

Delta Dental Annual Award
Student in the MCC Dental program, with financial need. A letter of recommendation and essay required.

Margarete K. M. Driver Modern Languages Scholarship
Student majoring in modern languages. Essay required.

Edison Chamber of Commerce / Annamae Baerenbach Business Endowed Scholarship
Student who has completed 12 credits with a 3.0 GPA; lives or works in Edison for four years; studying business, computer science or engineering technologies.

ESL - Dr. Eileen Hansen Award for Academic Excellence
Departmental Award

Excellence in Technology Award
Award is presented to a graduating Electrical Computer Engineering Technology or Mechanical Engineering Technology student who has demonstrated professionalism and commitment to the field of engineering.

Excellence Endowed Scholarship for Part-time Students
Current part-time student with a 3.5 or higher GPA, who has completed 9 non-remedial credits at MCC with outstanding academic achievement. Scholarship is renewable second year if student maintains a 3.5 GPA.

ExxonMobil Chemical Company Scholarship
Process Technology student who has demonstrated academic merit and financial need.

Marsha Feinberg Scholarship
Scholarship awarded annually to an outstanding student in the Hotel, Restaurant and Institution Management program.

Financial Aid Scholarship
Candidates must meet federal guidelines for financial aid and have completed 12 credits with 2.0 GPA or better.

Murray Geltzer Endowed Scholarship
Entering full-time student who has worked while in high school and maintained a B average.

Dorothy I. Good Endowed Scholarship
Medical Technology student with financial need with a 3.0 GPA or better.

Susan Green Endowed Scholarship
Second-year student majoring in Media, Arts & Design with 3.0 GPA or better and is active in the Art and Photography Club.

John J. Gutowski, Jr. Memorial Scholarship
Preference given to a Criminal Justice major with financial need. Essay required.

Habib American Bank Endowed Scholarship
Students with a 3.0 GPA or better who have completed at least one semester at MCC with 12 credits, majoring in business.

Hispanic-American Club Award
Full-time student residing in Middlesex County who is active in the Hispanic-American Club. Student is ineligible for Financial Aid, but has demonstrated financial need.

Professor Jeffrey Hochbaum Memorial Endowed Scholarship
Full-time, second year Health Technologies student with a 3.5 GPA or better in Science courses and a 3.0 or better overall GPA. Two letters of recommendation from Health Technologies professors and essay required.

Rush Holt / Margaret Lancefield Annual Scholarship
Part-time student who is working and has family obligations, and who resides in New Jersey's 12th Congressional District.

J&J Health Technologies Scholarship
Preference given to students in health-related careers.

JFK Medical Center Auxiliary Scholarship
Full-time Health Technologies students from Metuchen, Edison or Woodbridge.

Ernest A. Johnson Memorial Endowed Scholarship
Student pursuing an Associate's Degree in Business Administration and Management, who has demonstrated academic merit and financial need and who is involved in community service.

Karma Foundation Endowed Scholarship
Female student who is older than traditional college age, who is not coming straight from high school and has financial need.

Jerome F. Katcher, CPA and Estelle Katcher Business Achievement Award
Second year business major with outstanding academic achievement of 3.5 GPA or better.

The Khym Foundation Annual Scholarship
Full-time student with financial need and a 3.0 GPA or better.

Joseph Klegman Memorial Scholarship
A second year student majoring in business administration or management.

The L'Hommedieu Family Scholars Program
Students pursuing careers in Health Technologies.

Sam Landis Endowed Scholarship
Full-time second year student in each college division with 3.0 GPA or better.

Lieutenant Colonel Willard Blohm, US Army and Lieutenant Arch Updike, US Navy Scholarship
High achieving students who are preferably in a transfer program who have completed 12 or more college level courses in science, math or Health Technologies. Awarded in spring for following fall semester.

Menlo Engineering Scholarship
Student with demonstrated financial need and academic merit who is pursuing a degree within the engineering technologies program.

Metuchen Savings Bank / Annamae Baerenbach Memorial Scholarship
Second year student pursuing a degree in business, nursing or teaching, who is a child of a single parent who lives in Metuchen or Edison, a U.S. Citizen and has low to moderate income.

Thomas J. McCoy Endowed Scholarship
Outstanding students in legal studies and accounting.

Middlesex County College Alumni Scholarship
Full- or part-time second year student who is a dependent of an MCC alumnus.

Middlesex County Association of Realtors Endowed Scholarship
Student with a documented disability and demonstrated financial need.

Middlesex County Bar Association Annual Award
Annual award given to a high achieving paralegal student by the Paralegal Studies Department.

Middlesex County Fraternal Order of Police Endowed Scholarship
Student enrolled in the second year Criminal Justice Program with Police Option. Student must have completed 25 credits with a GPA of 3.0 or better and be involved in community service.

Alfred Miller - New Jersey Transportation (NTR) Endowed Scholarship
Preference given to a second year student in transportation, materials handling, warehouse or distribution. If there are no students who meet this academic criteria, this scholarship may be awarded to a second year student with a 3.0 GPA or better.

Anna Morgan Memorial Endowed Scholarship
Nursing Major from South Amboy.

John P. Mulkerin Endowed Scholarship
To be determined.

New Brunswick Housing Authority Endowed Scholarship
New Brunswick Housing resident taking two or more courses.

New Jersey Association of Women Business Owners Endowed Scholarship
Second year female student who has returned to school after a lapse in formal education with 3.0 GPA or better. Middlesex County resident enrolled in one of the following divisions: business, engineering, health technologies or social science and humanities.

Nolan & Rubino Engineering Associates Scholarship
Full- or part-time second year student in Mechanical-Civil/Construction Engineering Technology program.

Old Bridge / Sayreville Rotary Endowed Scholarship
Old Bridge or Sayreville residents who are high school graduates. Preference given to Rotary Interact and Rotary members, students with financial need, and those who participate in community service.

Daitaun Paradise Memorial Scholarship
Graduating senior who has participated in MCC basketball and is planning to attend a four-year institution.

Harry Payne Endowed Scholarship
Hispanic or African-American students who have overcome obstacles.

Nancy Yusko Peters Endowed Scholarship
A full- or part-time student who has overcome obstacles to attend MCC.

Pinnacle Federal Credit Union Annual Scholarship
Full-time second year student with financial need, majoring in business, accounting or computer science with a 3.0 GPA or better.

Provident Bank Foundation Endowed Scholarship
Business or accounting student with 3.0 GPA or better. Preference given to Middlesex County College Educational Opportunity Fund students.

Prudential Endowed Scholarship
Full-time minority students in accounting, computer science, or office systems technology.

Psi Beta / PIE Clubs Annual Award
Divisional Award - criteria to be determined.

Ron Romano Academic Achievement Award
High achieving students who are preferably in a transfer program who have completed 12 or more college level courses in science, math or health technologies. Awarded in spring for following fall semester.

Renato Romano Memorial Scholarship
Award presented to the student with highest GPA in all transfer programs offered by the Division of Science, Mathematics and Health Technologies.

Joaquin Rosa, Sr. Memorial Scholarship
Latino student who resides in Perth Amboy or New Brunswick with 24 credits, documented history of community service and who has financial need but may be ineligible for financial aid.

Steven B. Rosengarten Memorial Endowed Scholarship for Current MCC Students
Second year student who volunteers, and has completed one psychology class with a grade of B.

Steven B. Rosengarten Memorial Scholarship for Graduating MCC Senior
Graduating senior planning to major in psychology or education at a four-year institution. Essay required.

Fernando Santiago Endowed Scholarship
Student with proven financial need, registered for at least two classes at the Perth Amboy Center. Essay required.

Goldelie and Stanley Schneider Endowed Scholarship
Female student who is a custodial parent, 25 years or older, returning after a lapse in formal education.

Frank E. Schultz Endowed Scholarship
Student with 3.0 GPA or better with plans to continue education in graphic design or visual arts after MCC.

The Shailesh and Dr. Bharti Shah Endowed Scholarship
High achieving student of Indian origin (student and/or parent born in India) who is a full-time second year student with at least 12 credits. Student selection based on financial need, academic merit, and involvement in the community.

Carol A. Siperstein Memorial Endowed Scholarship
Student with 3.0 GPA or better. Applicant should reflect some or all of the following: an interest in teaching, appreciation for fine and performing arts and sensitivity to gender diversity.

Morris and Mildred Siperstein Memorial Endowed Scholarship
Student in health technologies courses with a 3.0 GPA or better.

Florence M. Skomba Annual Scholarship
High achieving female student from Old Bridge or Perth Amboy Adult Schools who plans to further her education.

Ian Smith Endowed Scholarship
Graduating senior with a 3.8 GPA, transferring to a four-year institution. One faculty recommendation and an essay are required.

Frank R. Steele / H.O.N.O.R. Endowed Scholarship
African-American students with financial need, enrolled in Science, Engineering or Business courses.

Joan D. Sulva Endowed Scholarship
Student with documented disability, taking 12 non-remedial credits with a 2.5 GPA. Essay required.

The Walter and Louise Sutcliffe Foundation (managed by Wachovia Bank) Nursing Scholars Program
Nursing students with financial need.

Sweetwater Construction Corporation Annual Scholarship
Full- or part-time second-year student majoring in Civil Engineering Technology. Preference given to a student currently or recently employed in the construction trades. Student must have financial need, academic accomplishment and a 3.0 GPA or better.

Telcordia Pioneers, Chapter 99 Endowed Scholarship
Full-time student with economic need, majoring in Telecommunications Network Technology or related computer majors, with significant community service participation.

Mary E. Trickel Endowed Scholarship
Full- or part-time custodial parent returning after a five-year lapse in formal education and who is not covered by tuition reimbursement. 12 credits, remedial or college level with a 2.0 GPA or better. Essay required.

Verizon Scholars Program
Full-time students with financial need who are interested in pursuing careers in telecommunications or business.

Frank D. Visceglia Endowed Scholarship
Student with financial need pursuing a career in health care.

The Wachovia Foundation Annual Scholarship
Full-time, second year minority student majoring in business with financial need and a 3.0 GPA or better.

Betty Whalen, MPA Health Technologies Scholarship
Hispanic female student with unmet financial need who may be ineligible for Financial Aid and who is enrolled in a Health Technologies major.

Barbara A. and Samuel E. Wike Endowed Scholarship
Custodial parent returning to school after a five-year lapse in formal education. Essay required.

Women's Rehabilitation Group of New Jersey Scholarship
Female student of Asian-Indian origin who has financial need and a GPA of 3.0 or better. Entering high school students transcripts will be reviewed.

The Adam J. Yarnutoski Memorial Scholarship
Student with proven academic merit and proven financial need with a 3.5 or better GPA who is pursuing an Associate's Degree in Business or Humanities.

Enrollment Services, College Programs and Activities

ACADEMIC ADVISING

Students should meet with an academic advisor each term to review curriculum requirements, to discuss career and educational goals (including transfer) and to discuss problems that may interfere with academic success. It is the student's responsibility to meet all curriculum and college requirements.

Full-time students are assigned a faculty advisor, usually from the academic division that contains their academic program. Full-time faculty members maintain a regular schedule of office hours, which is posted on their office doors. It is the student's responsibility to make appointments with their advisor. Names of advisors for full-time students are on file in the academic departments, Academic Advising Center and the Office of the Registrar in Chambers Hall. Advisors may refer students to a counselor in the Department of Counseling and Career Services when appropriate.

Part-time students may meet with an advisor in the Academic Advising Center in Chambers Hall 109 on a drop-in basis. *For more information, please call 732.906.2596 or contact* **advising@middlesexcc.edu.**

ADMISSIONS COUNSELING

To learn more about the College, to obtain help in selecting a major, to learn more about specific courses of study, or to simply schedule a campus tour, students are invited to make an appointment with an Admissions Counselor in the Office of Admissions and Recruitment, Chambers Hall, 732.906.4243. For more detailed admissions information and deadlines please refer to the Applicant's Guide.

ADMISSIONS GUIDELINES

Middlesex is a public college with an open admission policy. Applications are accepted to degree and certificate programs from anyone who holds a high school diploma or GED, and adults (18 years of age or older) who can demonstrate an ability to benefit from a college education. Some programs have specific entrance requirements and/or limited seating. SAT scores are optional. For questions or additional information, please call the Admissions Office at 732.906.4243.

The majority of programs begin in the Fall, Spring or Summer and can be completed by studying full- or part-time. Applications for most programs are reviewed on a rolling admission basis. The exceptions are those full-time programs beginning only in the Fall semester: Dental Hygiene, Medical Laboratory Technology, Nursing, Radiography Education, and Respiratory Care. These programs have application deadline dates. Automotive Technology starts every other Fall semester.

ADMISSIONS POLICY

1. **Policy**
   The College provides educational opportunities for all students who have a reasonable chance of benefiting from college level work and who have a reasonable chance of successfully participating in the educational program for which enrollment is sought.

2. **Program Categories**
   The College recognizes the following categories of students as either part-time or full-time:
   (a) Matriculated students enrolled in programs of study leading to a degree or certificate.
   (b) Non-matriculated students taking credit courses for personal interest, career advancement, enrichment or transfer back to another institution.
   (c) Non-credit students taking programs of varying lengths for which no credit is assigned, for purposes of personal enrichment, career advancement or professional education.

3. **Admission Eligibility and Conditions for Credit Programs and Credit Courses**
   Except for admission to restricted programs listed in Section 6, admission to credit programs and courses is open to all individuals with a high school diploma or general equivalency diploma (GED) and individuals not possessing a high school diploma or GED who are at least 18 years of age and have not attended high school for at least one year. In addition, high school students meeting the criteria under Section 4 may apply for admission

4. **Credit Programs for High School Students**
   High school students are permitted to enroll in credit courses for which they meet the prerequisites, with the written acknowledgment of a high school counselor or principal and permission of a parent or guardian. Below the junior year of high school, students may be considered for credit course admission based only on strong recommendations of high school officials and standardized achievement test scores at the 97th percentile or above and/or results of the college placement test.

5. **Documentation Required**
   All applicants are required to complete and file, at the College's Admissions Office, the application form for admission prescribed by the College. The student should arrange to have high school/college authorities forward official transcripts in sealed envelopes to the Office of Admissions. The student must also provide a valid record of immunization.*
   **New Jersey law requires that as a condition of enrollment all degree seeking applicants present a valid record of immunization against measles, mumps and rubella. Individuals are exempt from this requirement only if they were born before 1957 or if they attended an elementary or secondary school in New Jersey. When all admission materials have been received, the College may request a personal interview.*

6. **Restricted Enrollment**
   Placement into certain programs is restricted or may be limited if the number of applicants exceeds the number that can be enrolled at a particular time. Accordingly, admission to the following specialized programs is subject to the additional criteria and restrictions listed: psychosocial rehabilitation, respiratory care, radiography, medical lab technology, nursing, dental hygiene, automotive technology, and energy utility technology.

7. **Conditional Admission**
   Applicants who have not satisfied State and local high school graduation or GED requirements, or who have been exempted from these requirements, shall be conditionally admitted subject to demonstration of reasonable chance of benefiting from college-level work based upon administration of a diagnostic assessment.

8. **Part-Time Enrollment**
   A part-time student is one who takes fewer than 12 credit hours per semester.

9. **Transfer Students**
   Applicants who have attended another college must submit official transcripts of all such work to the Office of Admissions and Recruitment. Transfer credit, subject to the approval of the dean of the division, is generally defined as coursework required in the curriculum and equivalent in content and credit hours to courses offered by Middlesex County College. Only letter grades of "C" and above are accepted.

Students seeking transfer credit for courses taken at a foreign institution should submit official transcripts or official, notarized copies of transcripts. These transcripts must be translated into English before they are submitted and the translation notarized and otherwise attested.

The College grants transfer credit for certain noncollegiate educational programs in accordance with the recommendation of the American Council on Education contained in *"The National Guide"* or *"A Guide to Educational Programs in Noncollegiate Organizations"*. These credits are granted consistent with graduation requirements for college-level courses as determined by appropriate academic departments with the concurrent approvals of the chairperson and dean.

Transfer credit from another institution is listed on the transcript with a "T" grade. Courses completed at another institution will not be applicable for a grade point average recalculation.

Course Time Limits – Major courses are subject to review after five years and all other courses after 10 years. The review procedure also applies to the evaluation of transfer credits.

10. **Advanced Placement Credit**
The College may grant credit for Advanced Placement Examinations (minimum grade of 3). The Advanced Placement Program, sponsored by the College Entrance Examination Board, offers students the opportunity to pursue college-level study while in secondary school and receive advanced placement and/or credit upon entering college.

11. **Placement Testing Requirements**
MCC students are required to complete the college's placement test. Performance on the test will determine eligibility for enrollment in credit courses.

See placement test exemptions on page 6.

ESL students do not take the college placement test until completion of the ESL sequence.

Visiting students with a specific course authorization from the primary institution will not be asked to complete the college's placement test.

12. **International Students**
Middlesex County College is authorized under federal law to enroll non-immigrant alien students. International applicants must follow degree programs as full-time students if they require a Certificate of Eligibility (Form I-20).

Students from other countries apply to Middlesex County College in the same way as all other students. In addition to admission requirements for other students, international students must submit documentary evidence of sufficient funds for college and living expenses in the United States. Applicants must complete the Declaration of Finance statement issued by the College. A sponsor who is a U.S. citizen or permanent resident must complete three copies of the Affidavit of Support form which is also supplied by the College.

International students are not eligible for federal study grants, nor is there any financial aid or scholarship program for international students.

Some international students with visas other than F-1 may be eligible for admission subject to approval by the director of admissions.

13. **Admission to Non-Credit Courses**
Eligibility for admission to developmental non-credit courses is determined by performance on the college placement test.

Eligibility for admission to other non-credit courses is determined on a course-by-course basis as a function of course level, content, and requirements.

14. **Insurance Requirements**
All full-time students shall maintain health insurance coverage which provides basic hospital benefits. This insurance coverage shall be maintained throughout the period of the student's enrollment. Group basic health insurance coverage shall be automatically provided and billed as a mandatory charge to all full-time students. A full-time student may waive this coverage and associated charge upon presentation of satisfactory evidence of individual coverage through an alternate basic hospital benefit health insurance arrangement.

All students enrolled within a Health Technologies curriculum shall purchase and maintain a group malpractice policy throughout the period of enrollment. This insurance shall be automatically provided and billed as a mandatory charge to all students so enrolled. The malpractice insurance may not be waived or substituted without regard to such other coverage as the student may enjoy.

15. **Priority Admission for In-County Residents**
Upon meeting the enrollment needs of county residents admission will be extended to residents outside Middlesex County.

AUDIT

Most courses may be audited. Students may elect to change a course from credit to audit through the refund period, or the 10th day of the semester, **by submitting the change to the Office of the Registrar.** Students auditing a class are not obligated to complete examinations or other requirements, nor do they receive any grade or credit for the course. However, students must pay the same tuition whether auditing a course or taking it for credit. The course will appear on the official academic transcript with a grade of "X."

CAMPUS CRUISER/WEB ADVISOR

CampusCruiser/WebAdvisor is the online portal available to all students, faculty and staff at Middlesex County College. CampusCruiser/WebAdvisor allows students to access both general and personalized college-related services from the internet. Services are available seven days a week, 24 hours a day except during scheduled maintenance. Some of the features of CampusCruiser/WebAdvisor include: weather-related closings, the emergency notification system, schedules, grades, transcripts and financial aid information. Students may also register for classes and pay tuition bills online. Other features are: e-mail, calendars, national and school news, sports, web pages, chat and message boards, course listings & descriptions and specific class information including syllabi, assignments, resources and links. Students must access their grades online through CampusCruiser/WebAdvisor. Grade reports are not mailed. Official grade reports/transcripts may be ordered at the Office of the Registrar. See Transcripts on page 9.

All official communication with students containing personal information will be conducted using the FERPA guidelines. Students will be responsible for checking their official college-provided CampusCruiser/WebAdvisor email regularly and maintaining the security of that address. *Anyone who needs more information about CampusCruiser/WebAdvisor please e-mail* **Cruiser_Help@portal.middlesexcc.edu** *or call 732.906.2616 during business hours.*

CAREER SERVICES

Assistance with full-time, part-time, or seasonal employment is available to students and alumni. Services include workshops for employment preparation, on-line job listings, career and interest assessment, resume referral and career counseling. The Career Resource Center in Edison Hall, room 100, provides electronic and print information on career choices, employment trends, job-search materials, and specific vocational fields. *For additional information, call 732.906.2595 or visit* **www.middlesexcc.edu/career.**

CERTIFICATION OF ENROLLMENT

The National Student Clearinghouse is the authorized agent for providing Certification of Enrollment to outside agencies such as the Social Security Administration, credit card companies, insurance companies, lending institutions and prospective employers. Students who need to have their enrollment certified should log onto CampusCruiser to reach the National Student Clearinghouse self-service site to make a request. Students who are not currently enrolled and cannot access the site through CampusCruiser may contact the National Student Clearinghouse directly at: **www.studentclearinghouse.org**, e-mail: **enrollmentverify@studentclearinghouse.org**. For current students, the Certification of Enrollment is available after the 10th day of each term. All verifications are official and do not require an institutional signature or seal.

CHANGE OF MAJOR

Students may change their major if they meet the admissions requirements for the new major and space is available. Students who are currently seeking a degree or certificate or are in Open College must submit a Change of Major/Addition of Second Major form to the Office of the Registrar signed by the dean or department chairperson of the academic department/division which administers the new major or a staff member in the Department of Counseling and Career Services, EOF, MAPS, or the Academic Advising Center.

Students who want to change their major to Dental Hygiene, Medical Laboratory Technology, Nursing, Psychosocial Rehabilitation and Treatment, Radiography Education, Respiratory Care, Automotive Technology or Energy Utility Technology must file an Application for Admission with the Office of Admissions and Recruitment.

Non-Matriculated and English as a Second Language (ESL) students who wish to declare a degree or certificate program must also file an application with the Office of Admissions and Recruitment.

CHILD CARE SERVICES

Child care is available on-campus in a modern child care center for the children of students, staff, and residents of the community. Professionals offer child care and preschool education during the day for children between 2-5 years of age. Evening care is available from 5:15-9 p.m. for children, ages 3-9, of college students only. Students enrolled in Middlesex County College education programs provide individualized attention to the children in the Center. *For information on Child Care Center services, call 732.906.2542.*

COLLEGE CENTER

Students who want to relax in informal surroundings should go to the College Center. Here students can enjoy campus activities, buy lunch in the cafeteria, grab a cup of coffee in the snack bar, or just find a comfortable place to talk with friends, faculty, and staff. The following facilities are available within the College Center: an Automated Teller Machine (ATM), lounges, meeting rooms, and student organization offices.

COLLEGE CENTER PROGRAMMING BOARD

Students who enjoy planning and presenting a variety of cultural, recreational, and social events should consider joining the College Center Programming Board. They can become a member of one of the five committees that make up this board. Throughout the year, these committees plan and present popular and classical concerts, film programs, art exhibits, forums for speakers, theater and museum trips, and social functions.

Students interested in becoming part of a student organization have approximately 75 chartered organizations from which to choose. Students can develop current interests, explore new areas, and meet new people. These are three compelling reasons to join a student organization.

COOPERATIVE EDUCATION AND INTERNSHIPS

Cooperative Education integrates academic study and practical work experience. Students gain college credit along with career-related work experience. *For more information, stop by Career Services in Edison Hall, Room 100, or visit* **www.middlesexcc.edu/career**. *Call 732.906.2595.*

COUNSELING

The Department of Counseling and Career Services offers a full complement of professional counseling services designed to help students cope with academic demands, choose a career or major and cope with personal problems. Because counselors believe that each individual problem merits privacy and confidentiality, professional counseling ethics are practiced throughout the department. The office is located in Edison Hall, Room 100. *Call 732.906.2546.*

COURSE LOAD

Enrollment for fewer than 12 credits or credit equivalents is considered part-time and enrollment for 12 or more credits or credit equivalents is full-time.

Students who want to enroll in more than 20 degree credits (or their equivalent) in any semester must have the written permission of the Academic Advising Center, located in Chambers Hall.

DEMOCRACY HOUSE

Democracy House is Middlesex's Center for Civic Engagement and it runs a number of programs, including the Community Scholars Corps and the Bonner Leaders Program. Diverse groups of students are united and work together to address the unmet needs of the local community by tutoring homeless children, feeding the hungry, restoring local rivers, completing community based research projects for local nonprofits, organizing local youth to identify and complete their own neighborhood improvement projects—and much more. Most students receive an hourly stipend and a college scholarship for their commitment and desire to learn and serve their community. *For more information call 732.548.6000, ext. 3262 or visit Democracy House in Raritan Hall (003).*

DENTAL HYGIENE CLINIC

The Dr. Sidney Danzis Dental Hygiene Clinic, located on the main floor of L'Hommedieu Hall offers the following dental services to the College and the surrounding community: oral cancer screening, dental scaling and polishing, dental exam, x-rays, fluoride treatments, sealants and instruction in maintaining good oral health. A nominal fee is charged. *For an appointment, call 732.906.2536.*

EDUCATIONAL OPPORTUNITY FUND

The Educational Opportunity Fund (EOF) program is an academic program that provides individual and group counseling services, academic support, and financial aid to educationally and economically disadvantaged students who might not otherwise attend college. Students must complete a Free Application for Federal Student Aid form (FAFSA) and an Educational Opportunity Fund program application. *For information about admission to the program, contact the EOF Office in South I. Call 732.906.2544.*

ENGLISH AS A SECOND LANGUAGE

Those whose native language is not English can study and prepare for college courses or gain needed language skills for the current job market in the ESL program. The college will test language skills and place students in a program of study to meet their specific needs. *TOEFL is not needed. For more information, call the ESL Department at 732.548.6000, ext. 3218.*

GRADE REPORTS

Students must access grades online through CampusCruiser/WebAdvisor. Students may request a paper copy to be mailed or may order an official transcript in person at the Office of the Registrar, online or through CampusCruiser/WebAdvisor, or they may download the Transcript Request Form to mail to the office for processing.

HIGH SCHOOL SCHOLARS PROGRAM

High school students may take college courses for credit if they have completed the prerequisites that the courses require. To register for a course, all students must complete the "High School Scholars" application (available online), have the recommendation of their school guidance counselor, and parental permission.

Students may attend classes on the Middlesex County College campus, at the New Brunswick or Perth Amboy Centers, or at any of the off-campus locations. Where there is sufficient interest, by arrangement with the school district, courses may be offered on the school premises during the regular school day.

During the Fall and Spring semesters, students pay only $100.00 (plus fees where applicable) and are limited to one course per semester. Students choosing to take summer courses pay the regular tuition and fees. *For more information, call 732.906.2554.*

HONOR SOCIETIES

Middlesex has five honor societies for students who excel in the classroom. Phi Theta Kappa, the national honor society that recognizes the academic achievements of community college students, provides leadership training and a free exchange of ideas in an intellectually stimulating atmosphere. Students will be invited to join if they earn a 3.5 semester and overall GPA based on a minimum of 12 credits, pledge an interest in developing leadership skills, and are willing to perform community service. Alpha Mu Gamma is the national collegiate foreign language honor society. The Iota Tau Chapter welcomes students who maintain a 4.0 GPA in upper level language courses along with an overall 3.0 GPA. Psi Beta, the national psychology honor society for community colleges, recognizes and encourages scholarship and stimulates interest in psychology. Students are eligible for membership if they have completed at least one psychology course with a grade of "B" or better and have an overall GPA of at least 3.25.

The Chi Alpha Epsilon National Honor Society, Inc. recognizes students who have completed three or more credits of developmental courses in an academic area and exhibited high academic achievement. In order to be inducted into the Gamma Gamma Chapter, full-time students must have a 3.00 grade point average for two consecutive semesters; part-time students taking 9-11 credits must have a 3.00 for three consecutive semesters and those taking 6-8 credits, a 3.00 for four consecutive semesters.

Lambda Epsilon Chi is the honor society for the Paralegal program and recognizes excellence in that field.

IMMUNIZATION

Middlesex requires all students taking 12 credits or more to provide immunization records.

Additional immunization records are required of students in the Health Technology programs and the Dietetic Technology program. For more information, visit the Office of Health and Safety in South II or call 732.906.2530.

INDEPENDENT STUDY PROGRAM

Highly motivated self-directed learners who want to determine their own pace of instruction should consider the college's independent study courses in English composition and American literature. The Independent Study Program provides a flexible approach toward college instruction. Course components include a textbook, study guide and other support material. An instructor is available during regularly scheduled consultation hours for in-person or telephone communication. Students e-mail assignments to the instructor. They must take all exams on campus.

INTERCOLLEGIATE SPORTS

Middlesex is a member of Region XIX of the National Junior College Athletic Association. Competing teams come from New Jersey, Pennsylvania, and Delaware. Middlesex is also a charter member of the Garden State Athletic Conference, which oversees athletic competition among New Jersey's community colleges. *Students who want more information or wish to participate should contact the Director of Athletics at 732.906.2558 after enrolling at Middlesex.* Women's intercollegiate sports include basketball, cross country, golf, indoor and outdoor track and field, soccer, and softball. Men's intercollegiate sports include baseball, basketball, cross country, golf, indoor and outdoor track and field, soccer, and wrestling.

INTERNATIONAL STUDENT ADVISOR

The College has an advisor to assist international students. *Call Counseling and Career Services at 732.906.2546.*

LEAVE OF ABSENCE

New Jersey STARS and students in selective programs may apply for up to one year leave of absence from the College by completing a form that is available in the Department of Counseling and Career Services. The leave allows them to return to the College within a year without applying for readmission and without a change in requirements for a degree or certificate program. Failure to obtain a Leave of Absence means that they must apply for readmission to return.

LIBRARY & MEDIA RESOURCE CENTER

The Middlesex County College Library is here to help students succeed. The reference librarians offer individual instruction in locating and evaluating appropriate materials for research projects or other information needs. The College Library subscribes to over 40 online databases which are available 24/7 from on and off campus. Included are full text articles from magazines, newspapers and journals, e-books, online audiobooks and streaming video. In addition to materials and resources available at the College Library, items can be obtained through an international interlibrary loan network (OCLC) and from more than 20 local libraries through the Library's online catalog (iBistro). Wireless access, in-house laptop loans, over 40 computers with internet and Microsoft Office and free printing are also available in the Library.

Students can expand their research and learning activities by a visit to the Media Resource Center in the Instructional Resources Center, where they will find the Open Computer Lab, the Multimedia Lab, and other materials and services.

MINORITY STUDENT AFFAIRS

A number of special programs and services are designed especially to improve the success of minority students on campus. They are provided with a support system to help reach their goals, whether they are to enter the workplace or transfer to a four-year college or university. The Peer Mentor Program matches a first-year student with an outstanding second-year minority student. Contact the Minority Student Affairs Office. *Call 732.906.2532.*

NJ STARS

NJ STARS is a state-sponsored program that covers community college tuition and fees for those students who graduate from high school in the top 20 percent of their class. Students can complete the freshman and sophomore years of college with no tuition costs, and, after graduating, transfer to a bachelor's degree program for the final two years. If they maintain a 3.0 grade point average, students can participate in STARS II, which pays tuition and fees at a public college or university in New Jersey.

To qualify, you must:

- Graduate in the top 20% of your high school class and attend community college within two years
- Maintain full-time enrollment status in an associate's degree program at Middlesex County College. (12 or more college credits)
- Apply for all need-based and merit-based financial aid each year.
- Maintain a minimum grade point average of 3.0.
- Be a United States citizen or have permanent residence status in Middlesex County.

OFFICE OF SCHOOL RELATIONS

The Office of School Relations is the college liaison to the K-12 school districts. Working with the K-12 sector, Middlesex County College provides professional development workshops for teachers and academic and career development programs for students. The professional development includes customized in-district workshops to meet the specific needs of local school districts, on-campus workshops integrating the NJ Core Curriculum Content Standards, and summer institutes focused on math, science, and technology. Middlesex is registered with the NJ Department of Education as a professional development provider (#42). Through School Relations, both a 'Substitute Teacher Training Seminar' and a 'Substitute School Nurse Seminar' are offered to meet the districts' staffing needs. New Pathways to Teaching in New Jersey, an alternate route to teaching in the K-12 sector, is available through the Office of School Relations. A Praxis Review course is available for the elementary school Praxis exam.

For middle and high school students, School Relations offers career exploration and academic enrichment programs such as the Middlesex County Teen Arts Festival, the High School Scholars program, and GATEway, a summer program for academically gifted students who have completed seventh, eighth, or ninth grade. *For information on any of the programs, call 732.906.2554 or check the college website under "K-12 Connection."*

OPEN COLLEGE PROGRAM

The Open College Program gives students the opportunity to enroll full time without selecting a major. Open College is for students who are unsure of educational goals, or wish to explore before choosing a major. Students in this program are required to enroll in writing each term until English Composition II is successfully completed. Open College students do not qualify for financial aid so students need to declare a major before applying for financial aid. *For more information, please call 732.906.2596.*

PEER GUIDANCE ORGANIZATION

"For Students by Students" is the philosophy of the Peer Guidance Organization (PGO). Students are available to listen and assist their peers with personal, social and academic problems. They are trained by counselors in the Department of Counseling and Career Services and make referrals to the department as well as to others on campus. *For more information, call or drop by the Department of Counseling and Career Services, Edison Hall Room 100, 732.906.2546.*

PHYSICAL EDUCATION CENTER

At the Physical Education Center, students can get in shape and stay in shape on any of the collegiate-size basketball courts, on the racquetball courts, in the weight room, at the swimming and diving complex, or in the dance studio. The air-conditioned weight room is complete with closed-circuit television, state-of-the-art treadmills, computerized exercise bikes, and steppers. In addition, students using free weights have available to them dumbbells, barbells, and a Smith machine.

Registered students who pay the student service fee may use the swimming pool, gymnasium and outdoor track, as scheduling permits, and join the Fitness Club. Fitness Club memberships are also available to staff and graduates of Middlesex. Membership entitles students to free use of all the facilities except the racquetball courts, which require an hourly usage fee. T*o receive a complete schedule, contact the Physical Education Center at 732.906.2558.*

PROJECT CONNECTIONS

Project Connections, the comprehensive program for highly motivated, college-able students with specific learning disabilities, provides support services to students through comprehensive psycho-educational support.

Both academic and counseling services are available to assist students in meeting with success in completing their college program. Admission is selective and a supplemental application is required. *To request an application, please call 732.906.2507.*

READMISSION

Students who have not been enrolled at the college for 12 months must apply for readmission before re-enrolling. They will be subject to the degree or certificate requirements in effect at the time of readmission.

REGISTRATION

Current Students Who Have Been Admitted to a Degree or Certificate Program

Current students who are eligible may register online through CampusCruiser/WebAdvisor during the designated registration period for the upcoming term. Students are encouraged to meet with a faculty advisor prior to registering. The advisor assists with course selection and approves the schedule.

New Students Who Have Been Admitted to a Degree or Certificate Program

New students, once they are admitted to the college and have taken the placement test, must meet with an academic advisor. Faculty advisors assist them at the time of enrollment by answering questions about the college and helping choose appropriate classes.

New and Current Non-Matriculated Part-Time Students

Current part-time students and those currently enrolled who have not been admitted to a degree or certificate program (non-matriculated) are encouraged to register online through CampusCruiser/WebAdvisor. New part-time and non-matriculated students may register by mail or in person during the designated registration period for the upcoming term. All new students are sent a CampusCruiser/WebAdvisor log-in ID and password after they have been admitted which will provide them with access to web registration in subsequent semesters. Class schedules are available on the college website: **www.middlesexcc.edu.**

First Week of a Fall or Spring Semester or First Day of Summer or Wintersession

Students are allowed to register for courses during the first week of a Fall or Spring semester or the first day of a summer or wintersession class without a signature provided that the class is still open. If the course is closed, then the student must obtain the signature of the department chair or the dean if the chair is not available. It is the student's responsibility to contact his or her professor as soon as possible to make up the work that was missed in the course.

RESERVE OFFICERS TRAINING CORPS (ROTC)

Middlesex County College and Rutgers University have an agreement permitting students at Middlesex to cross-enroll in the Army Reserve Officers Training Program at Rutgers without a military commitment. Scholarships of various award levels and lengths are available. Additionally, NJ Army National Guard members can attend college under the NJARNG tuition-free waiver program. The Army ROTC program provides students the opportunity to study and train for careers in the U.S. Army, Army National Guard, and the Army Reserve. Students who successfully complete the program are commissioned as second lieutenants, and, depending on their career choices, can serve full-time on active duty, or part-time, one weekend a month. *For more information, call 732.932.7313, ext. 11 or e-mail at* **apgarb@rci.rutgers.edu.**
For more information, visit **http://armyrotc.com/edu/rutgers**

SEMESTERS AND SESSIONS

Fall and Spring

Courses offered during the Fall and Spring semesters are taught over a 14-week period. These courses are offered on the main campus in Edison, at the New Brunswick Center, the Perth Amboy Center and numerous high schools within Middlesex County.

Fall II and Spring II

Within each of the regular 14-week semesters is a concentrated session with a limited schedule of course offerings that begins several weeks after the start of the semester. These courses are offered at off-campus locations, as well as the main campus in Edison.

Summer

During the summer, the College offers four-week, seven-week and 14-week sessions.

Wintersession

In December, the college offers a concentrated session. A limited schedule of classes runs five mornings, afternoons or evenings per week. This mini-semester allows students to earn credits without increasing their regular semester course load, to fulfill a prerequisite for a course they wish to take in the spring or to repeat a fall course to improve their grade.

SPANISH / ENGLISH COUNSELING CONSEJERIA BILINGUE

Se ofrece ayuda especial a los miembros de la comunidad hispana y estudiantes con dificultades con el idioma inglés. Se ofrece consejería bilingüe en inglés y español, en areas de problemas personales, vocacionales, adaptación en esta sociedad y desarrollo personal. *Para hacer una cita llame al teléfono: 732.906.2546. También usted Puede pasar por nuestra oficina en Edison Hall, Room 100.*

STUDENTS WITH DISABILITIES

Students requiring assistance are strongly encouraged to contact the Counselor for Students with Disabilities *(Edison Hall, Room 100, 732.906.2546 or TTY 732.906.2547)* early in the application process so that the College may respond to their needs in a timely and effective way. Students may request a copy of the Special Services brochure and policies and procedures for additional information.

STUDY-ABROAD PROGRAM

During the summer, the Center for International Education offers five Study-Abroad Programs in England, Chile and Quebec.

Students can travel, learn, expand their cultural horizons, meet different people, learn more about themselves, earn college credits, and immerse themselves in cultural traditions of another country. The College's study and travel programs offer an invaluable opportunity for college students, above-average high school students, educators, alumni and retirees to learn more about the social, cultural, historical and educational life of people in other countries.

Most programs include: Round trip airfare from NY/Newark to any of the program sites, room and board, tuition for up to six college credits, activities consisting of sightseeing, performances, lectures, tours to nearby cities, etc. *For information regarding costs and detailed itineraries, please contact the Center for International Education (Center III) at 732.906.2529.*

TRANSFER SERVICES

Students interested in transfer after Middlesex County College can receive assistance with educational planning and choosing transferable courses appropriate to the four-year college and degree of their choice. The latest catalogs, reference books, scholarship guides, on-line sites, and other specialized information are available at the Transfer Services Center in Edison Hall, Room 100. Call *732.906.2546.*

TUTORING CENTERS

The Peer Tutoring Center, located in the Johnson Learning Center, provides academic assistance to all registered MCC students in a variety of courses (excluding English, reading, writing, and ESL). Tutoring is offered on a drop-in basis. The service is free of charge, and is provided on a daily basis including some evening and weekend hours (depending on the semester or term). *For more information, call 732.906.2631, or visit* **http://www.middlesexcc.edu/tutoring**. Assistance in reading and writing is available in East Hall. *For more information, call 732.548.6000, ext. 3086.* Assistance in ESL is available through the ESL Department. *For more information, call 732.548.6000, ext. 3218.* Additional assistance in developmental mathematics (Basic Mathematics, Algebra I and Algebra II) is available through the Math Tutoring Lab in Main Hall 142. *For more information, call 732.548.6000, ext. 3807.*

VETERANS AND MILITARY APPLICANTS

The New Jersey Department of Military and Veterans' Affairs, State Approving Agency under Title 38, U.S. Code, Section 1775, for veteran training, approves all degree and certificate programs. Those applicants wishing to obtain governmental educational benefits or any additional information should contact the Office of the Registrar.

Individuals have 10 years from their date of separation from active duty to use their entitlement. Veterans who began active duty between January 1977 and June 30, 1985, may be eligible for veterans benefits if they contributed to the Veterans Education Assistance Program (Chapter 32).

Veterans who began active duty after June 30, 1985 may be eligible for veterans benefits if they participated in the Montgomery G.I. Bill (Chapter 30) or the Active Duty Educational Assistance Program of the Selected Reserve and National Guard (Chapter 1606).

Reservist and National Guard members who were activated for at least 90 days after September 11, 2001 may be eligible for benefits under the Reserve Educational Assistance Program (Chapter 1607).

Veterans benefit recipients must apply for admission to a degree or certificate program. Open College-Developmental Plans of Study have been approved by the New Jersey Department of Higher Education, State Approving Agency.

To maintain benefits, veterans must comply with the Standards of Progress established by the College in cooperation with the State Approving Agency. These Standards include degree requirements, standards and regulations and the College's Code of Student Conduct. Failure to observe these regulations will jeopardize the receipt of benefits. Additional information may be found in the Pathfinder and the schedule bulletins.

The Office of the Registrar certifies the enrollment status of all students who apply for veteran's benefits. Middlesex County College is included in the Education Directory, Part 3: Higher Education.

WITHDRAWAL FROM A COURSE

Students who decide to withdraw from a Fall or Spring course must do so officially.

- **Prior to the first day of class:**
Students may drop a course online through CampusCruiser/WebAdvisor or by completing an ADD/DROP Change Form and submitting it to the Office of the Registrar. Dropping a course at this time has no effect on the Grade Point Average, and the course is not recorded on the permanent academic record.

- **First 10 days from the first day of a Fall or Spring semester:**
Students may drop a course in person by using an ADD/DROP Change Form. Withdrawing from a course at this time has no effect on the Grade Point Average, and the course is not recorded on the permanent academic record. For developmental course withdrawal, a signature is required from either the curriculum chair, the dean of the student's division, an academic advisor in the Advising Center or a faculty advisor. All forms must be submitted to the Office of the Registrar.

- **Eleventh day through the end of the withdrawal period:**
Students may drop a course in person by using an ADD/DROP Change Form. A grade of "W" will appear on their permanent academic record. For developmental course withdrawal, a signature is required from either the curriculum chair, the dean of the student's division, an academic advisor in the Advising Center or a faculty advisor. All forms must be submitted to the Office of the Registrar. The dropped course will be designated as having been taken one time according to the Repeated Course requirement.

- **After the withdrawal period ends:**
A student may appeal to the dean of his or her academic division should withdrawal be necessitated for reasons of health or circumstances beyond the student's control.

- **For all withdrawals:**
  - Students should retain the copy of the withdrawal form given them by the registrar until final grades are assigned.
  - Withdrawal from a developmental course may limit the courses for which you may register next semester.
  - Students withdrawing from Fall II or Spring II, Wintersession or Summer Session, should refer to the Academic Calendar on the college's website for deadline dates.
  - The withdrawal period ends 10 business days after midterm grades are available. The exact date will be posted each semester throughout the campus.
  - International Students who are on F-1 visa/status must meet with an international student counselor before they can withdraw from a class or from the College.

WITHDRAWAL FROM THE COLLEGE

Full-time students who need to withdraw from all courses must go to the Department of Counseling and Career Services in Edison Hall, Room 100, to complete the proper withdrawal form and confer with one of the counselors. All degree and certificate students who withdraw completely and who intend to return to the College are advised to apply for a leave of absence. For more information about the Leave of Absence Policy and Readmission, refer to pages 31 & 32.

Students who officially withdraw from the College after the 10th day of the semester but before 10 business days after midterm grades are available will receive the grade "W" in all courses. Should withdrawal be necessitated for reasons of health, or circumstances beyond the student's control, the student may appeal to the Tuition Appeals Committee.

International Students who are on F-1 visa/status must meet with an international student counselor before they can withdraw from the College.

Financial Aid students who withdraw from all of their courses prior to the end of the enrollment period will have their aid awards adjusted according to the Refund/Repayment Policy. See page 21.

WORKFORCE DEVELOPMENT PROGRAM

Assistance for students sponsored by NJ Employment Services begins at the local One-Stop Career Center office. (To find a Center, check **www.wnjpin.net**).

Community Outreach

Career Training Center

The Career Training Center provides adults with the opportunities to enhance their present career or prepare for a new career through computer-based training programs. These programs, which meet the needs of businesses, include training in health care, accounting, software technology and web design. Programs vary in duration from one day to 22 weeks and are available in day, evening and weekend sessions.

The center's programs provide career development and job placement services. A series of career development seminars are presented to all students. Topics include resume preparation, interviewing skills and job search. These interactive sessions enhance employability skills and prepare students for the demands of the corporate workplace. *For information regarding Career Training Center programs, call 732.906.4231.*

New Brunswick Center

Guided by the motto "Educate to Elevate," the Center opened in April of 1980 and provides educational opportunities to meet the needs of the community. The Center was established through the efforts of New Brunswick Tomorrow, the city's redevelopment organization, aided by an advisory committee comprising representatives of government, business, industry and community groups. The Center is located in the greater New Brunswick community where area residents can take advantage of everything that Middlesex County College has to offer close to home. The New Brunswick Center provides comprehensive enrollment services including admissions, registration, financial aid assistance, payment processing, tutoring services, ESL and college placement testing. The Center is the site for a wide range of academic offerings in such areas as English, mathematics, sociology and biology. Courses are scheduled at convenient times, days, evenings and Saturdays. Non-credit courses include Conversational Spanish and English as a Second Language, as well as Young Adult and African dance classes. During the fall and spring semesters, the New Brunswick Center offers student services which include counseling and library services. Individualized tutoring and career workshops are also available. There is a comfortable student lounge and a multipurpose room for community and college events. The New Brunswick Center at 140 New Street is conveniently located at the corner of New Street and Joyce Kilmer Avenue and is within walking distance of the New Brunswick train station. The staff is bilingual in English/Spanish. *For more information call 732.745.8866.*

Perth Amboy Center

The Perth Amboy Center offers college credit and non-credit courses as well as a variety of student activities. The staff is bilingual and includes program specialists, career counselors and teachers. The center would like the community to envision higher education as an opportunity to a better future. This idea is the basis for its motto, "Juntos podemos–together we can."

The Perth Amboy Center provides academic offerings which include a full range of English as a Second Language courses; developmental courses in reading, writing and math; and college credit courses in liberal arts and business.

The Center also offers comprehensive enrollment services, which include admissions, ESL and college placement tests, academic and financial aid advisement, registration and payment plans. In addition, students can purchase their books and obtain their student ID cards at Perth Amboy at the beginning of each semester. Also, a variety of counseling services, including vocational assessment, training and job referral services, are available on an individual basis by appointment or through group sessions. All counseling services are offered in English and/or Spanish. Tutoring and a variety of cultural and social activities are offered for students at the center.

The Perth Amboy Center is located at 60 Washington Street, Perth Amboy, NJ 08861. The newly built center is on the corner of Washington and High Streets. There is free parking for students on Mechanic Street. *For more information call 732.324.0700.*

Off-Campus Offerings

In addition to centers in New Brunswick and Perth Amboy, the college offers credit courses at public high schools in the evening.

The Center for International Education

The Center offers a unique certificate program in International Trade for individuals who have not had any previous training in international trade and who wish to start a career in that field or start their own international business.

This program is designed to give participants the appropriate background in the field of International Trade. Specialization in this field prepares participants for entry-level management positions in international trade or export-import positions.

The non-credit certificate program requires the completion of five core courses. After successful completion of the specified course of study outlined by the department, a certificate will be awarded to the participant.

Additional courses may be taken to learn the language and culture and commercial traditions of various countries. Arabic, Chinese, French, German, Italian, Japanese, Russian and Spanish courses are offered.

The center sponsors the International Business Round Table which has been a gathering place for business, government and education leaders since 1975. It is a central venue to give and receive information regarding foreign markets, new shipping regulations, new export credit and insurance requirements and all critical data for the expansion of foreign trade. A panel of experts in the various fields of international trade exchange accurate, up-to-the-minute information on a bimonthly basis. *For further information call 732.906.2529.* The Center coordinates the College's Study Abroad Program and the International Festival each April.

The Center for the Study of Prejudice, Genocide, and the Holocaust

Recognizing the negative and deleterious impact prejudice and discrimination have on people and society, the Board of Trustees authorized the establishment of the Center for the Study of Prejudice, Genocide, and the Holocaust. Through a variety of academic programs and courses, the Center seeks to promote understanding and respect for people of diverse backgrounds and cultures.

PROGRAMS AND SERVICES

Professional and Community Programs

■ ***Professional***

A variety of professional, non-credit programs are available to men and women who wish to make a change – to develop new skills in their field, to earn more money, to get a better job, or to try an entirely new career. Taught by business professionals in high demand fields, these courses are developed with commercial applications in mind. Comprehensive training is available in a wide range of areas that include: Small Business Development, Construction Management, Training and Development, Health Information Training, NJ Uniform Construction pre-licensing courses and Pharmacy Technology. Most courses are offered evenings and weekends to accommodate the schedules of working people. In addition to courses on the main college campus, a selection of courses is also available in the New Brunswick and Perth Amboy Centers. *For additional information call 732.906.7740 or visit* **www.middlesexcc.edu**

■ ***Community***

To enrich life with leisure time pursuits, improved health, stress reduction and new friends, a wealth of personal enrichment courses are offered. There are no prerequisites, no tests and adults of all ages are welcome! Courses include Dance – African, Belly, Salsa and Argentine Tango; Health and Fitness – Stop Smoking, Weight Reduction, Yoga and Pilates; Music – Afro Cuban and Puerto Rican Drumming and Chanting, African Drumming and Hand Drumming; General Interest – Bridge, Knitting and Crochet, and Finance and Law – Debt Reduction, Investments and Financial Planning. *For additional information call 732.906.7740 or visit* **www.middlesexcc.edu**

■ ***Summer Camp***

Camp Middlesex offers an overabundance of child-centered activities. Specialty camps include theater, basketball, magic, golf, clowning, chess, baseball, cartooning, sewing, specialized computer techniques, mosaics, science and so much more! Camps are offered as individual modules with an extended program option for working parents. Children ages 6-18 are welcome! *For additional information call 732.906.7740* or visit **www.middlesexcc.edu**

Project SPAN

The Supportive Parent Aid Network (SPAN) is a unique community volunteer program that provides a wide range of supportive services to families where there are varying degrees of existing or potential cases of child abuse and/or neglect.

By placing trained adult volunteers in contact with these families, SPAN offers, on a one-to-one basis, practical guidance, information and emotional support.

SPAN volunteers are first carefully trained in the dynamics of abusive families, parenting skills, early childhood development, crisis intervention, and community resources. They are then assigned to a family who has consented to accept a SPAN volunteer. Great care is taken to match the right volunteer with the family. Under this professional supervision, the SPAN volunteer becomes an integral part of the community effort to prevent child abuse. *To participate or receive more information, call 732.906.2553.*

The Institute for Management and Technical Development

The Institute provides customized training services for business, industry, nonprofit organizations, municipalities, and professional groups. Since its inception, more than 270 companies have been served, from multinational organizations to small businesses. Institute programs provide training in manufacturing skills, management, English as a Second Language (ESL) mini-courses, customer service, and information technology. Computer-based training is provided in college labs or at a company's site with a portable laptop lab.

A partner with the New Jersey Department of Labor, the Institute provides its clients training assessments, program delivery and assistance with the application as well as billing. *For further information on the Institute's services, call 732.906.4681.*

Work Readiness Program

Through grants provided by the Middlesex County Workforce Investment Board, Middlesex County College assists recipients of public assistance with life and academic skills necessary to support them in becoming financially independent. These grants include training in the areas of life skills, English as a Second Language and adult basic education. In addition, career development and exploration, resume writing and job interviewing techniques are included as part of the program. The Work Readiness Program is offered at the Perth Amboy Center.

Accounting

ACCOUNTING AND LEGAL STUDIES DEPARTMENT

DIVISION OF BUSINESS, COMPUTER SCIENCE AND ENGINEERING TECHNOLOGIES (BCSET)

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

Accounting is one of the most rapidly expanding fields in today's economy. Since it is service oriented, it involves working with people almost as much as with financial records. Accountants not only collect and report financial data, but they also serve as the link between the data and the people who use it.

Can Accounting majors transfer to a four-year college or university?

Articulation agreements with public and private institutions offer students who earn the A.A.S. degree the opportunity to transfer all of their coursework to the four-year institution. Students in specialized programs, or who earn an A.A.S. degree should discuss the transfer process with an advisor.

What will students learn studying Accounting?

They acquire an extensive background in accounting and a strong fundamental knowledge of the major functions of business and industry. They study business law, business organization and management, mathematics and economics.

Are there any requirements students must satisfy before taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the college's placement test or by completing the appropriate class.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

Contact: Professor Richard Ellison, department chair, at 732.906.2576.

ACCOUNTING

Associate in Applied Science (A.A.S.) Degree Program - ACC.AAS

Below are required courses and recommended course groupings and sequences for program completion. Courses may have prerequisites and corequisite requirements. Check course descriptions for details.

Courses		Credits	Requisites/Comments
Semester I			
ACC 101	Financial Accounting	4	
BUS 101	Business Organization and Management	3	
BUS 107	Computer Applications for Business	3	
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
BUS 115	Mathematics of Finance	3	MAT 013 BUS 115, Mathematics of Finance, will satisfy the math requirement. Students considering transfer to a baccalaureate program should consult an academic advisor as to the other math choices.
Semester II			
ACC 102	Managerial Accounting	4	ACC 101
BUS 201	Business Law I	3	
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
SPE 121	Fundamentals of Public Speaking	3	
___ ___	General Education Social Sciences Elective (GE SS)	3	
Semester III			
ACC 202	Cost Accounting	4	ACC 102
ACC 211	Intermediate Accounting I	4	ACC 102
BUS 202	Business Law II	3	BUS 201
ECO 201	Economics I	3	A passing score on the algebra portion of the college's placement test or MAT 013.
___ ___	Physical/Health Education Elective	1-3	
Semester IV			
___ ___	*Choose one of the following three courses (3 credits each):*	3	
	ACC 203 Accounting Systems and Procedures		ACC 102
	ACC 206 Tax Accounting		ACC 102
	ACC 208 Accounting Field Experience		ACC 211 and written permission from the department chairperson and the director of cooperative education and internships.
___ ___	General Education Science Elective (GE MST)	3-4	Students must select a course with the GE MST designation from the following sciences: BIO, CHM, PHY, SCI.
ACC 212	Intermediate Accounting II	4	ACC 211
ECO 202	Economics II	3	ECO 201
___ ___	General Education Humanities Elective (GE HUM)	3	
OR			
	General Education Social Sciences Elective (GE SS)		

Total Credits: 63-66

ACCOUNTING CERTIFICATE OF ACHIEVEMENT – ACC.COA

The Accounting Certificate of Achievement is designed for individuals with a college degree who have satisfied basic skills, general education and mathematics requirements. Permission of the department chairperson may also be required.

Courses		Credits	Requisites/Comments
ACC 101	Financial Accounting	4	
ACC 102	Managerial Accounting	4	ACC 101
ACC 202	Cost Accounting	4	ACC 102
ACC 211	Intermediate Accounting	4	ACC 102
___ ___	*Recommended Elective:* ACC 212 Intermediate Accounting II	4	ACC 211

Total Credits: 20

FORENSIC ACCOUNTING AND FRAUD EXAMINATION CERTIFICATE OF ACHIEVEMENT - FAFE.COA

The Forensic Accounting and Fraud Examination Certificate of Achievement is designed for the person who already has a college degree – Associate's, Bachelor's or higher –

Courses		Credits	Requisites/Comments
ACC 207	Auditing	3	ACC 212 or permission of department chair. This course may be satisfied by acceptable transfer credits or by credit by examination.
BUS 107	Computer Applications for Business	3	This course may be satisfied by acceptable transfer credits or by credit by examination.
ACC 221	Fraud Examination	3	ACC 207 and BUS 107/CSC 105/CSC 106
ACC 222	Fraud Data Analysis	3	Prerequisite(s): ACC 221 Corequisite(s): ACC 223
ACC 223	Fraud and the Law	3	Prerequisite(s): ACC 221 Corequisite(s): ACC 222
ACC 224	Advanced Fraud Examination	3	ACC 221, ACC 222 and ACC 223

Total Credits: 18

* Students with A.S. or A.A.S. degrees must show that they have taken 18 credits of general education courses. Holder of A.A. degrees are presumed to have satisfied the general education requirement.

** For students with a degree, who are granted transfer credits, this total will be reduced.

NOTE: Not all courses in the Forensic Accounting and Fraud Examination Certificate Achievement program are offered every semester. Please call the Department Chairperson at 732.906.2576 to discuss course offerings for future semesters.

Contact Name: Professor Richard Ellison
Contact Phone: 732.906.2576
Contact Email: **REllison@middlesexcc.edu**

Addiction Studies

PSYCHOLOGY AND EDUCATION DEPARTMENT

DIVISION OF BUSINESS, COMPUTER SCIENCE AND ENGINEERING TECHNOLOGIES (BCSET) CERTIFICATE

Addiction Studies Certificate - AS.CER

The Addictions Studies Certificate provides the educational and practical training hours required by NJ State Law for certification as an Alcohol and Drug Counselor (CADC). Students in the program will complete:

- 270 hours of approved alcohol and drug education in certain domain areas
- 300 hours of supervised practical training in alcohol and drug counseling
- 30 Alcohol and drug abuse self-help group meetings

Students who earn the certificate will be in an excellent position to complete the two year work experience requirement. They will also have the educational preparation to perform well on the NJ state written and oral examinations.

This certificate offers students an opportunity to enter the field of addiction studies upon graduation and, after completing their supervised work experience, to apply for CADC certification.

Below are required courses and recommended course groupings and sequences for program completion

Courses		Credits	Requisites/Comments
Semester I			
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
PSY 123	Introduction to Psychology	3	
___ ___	Elective	3	
COM 115	Intercultural Communication	3	
OR			
SOC 205	Diversity and Multiculturalism in U.S. Society	3	
PSY 151	Introduction to Addiction Studies	3	PSY 123
Semester II			
PSY 251	Substance Abuse: Pharmacology	3	PSY 151
PSY 235	Abnormal Psychology	3	PSY 123 or permission of department chair
PSY 264	Addiction Counseling	3	Prerequisite(s): PSY 151 and PSY 257
PSY 252	Community and Agency Counseling	3	
PSY 257	Counseling Theories and Techniques	3	PSY 123
Summer			
PSY 265	Addiction Studies Practicum	3	Prerequisite(s): PSY 264 and PSY 257
		Total Credits: 36	

Contact Name: Dr. Steven Barnhart
Contact Phone: 732.906.2590
Contact Email: **SBarnhart@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/departments/psyedu**

Automotive Technology

ENGINEERING TECHNOLOGIES DEPARTMENT

DIVISION OF BUSINESS, COMPUTER SCIENCE AND ENGINEERING TECHNOLOGIES (BCSET)

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

Students acquire the technical skills for career opportunities as an automotive service technician in dealerships and independent businesses. This program is offered in cooperation with Middlesex County Vocational and Technical Schools. It combines classroom and laboratory experience with paid on-the-job training. This program is certified by the National Automotive Technician Education Foundation (NATEF).

Do students who major in Automotive Technology earn additional certification?

Students are eligible for the Maintenance and Light Repair (MLR) Certificate from the Ford Motor Company, after successful completion of the first year of automotive courses.

Are there any requirements students must satisfy before taking courses in their major?

Algebra I is a prerequisite for all majors. Algebra I competency must be verified with a passing score on the college's placement test or by completing the appropriate class. As a result of the student's performance on the college's placement test, he or she may need developmental coursework. All developmental coursework must be completed before the student will be considered for admission to the program.

How long will it take to complete this degree?

Automotive Technology is an intensive full-time program. It includes 60 weeks spent in college classes and 30 weeks spent acquiring workplace experience. This cooperative education program takes approximately two years to complete. This program begins every other fall semester in the even numbered years.

Questions?

Contact: Assistant Professor Thom Sabol, department chair, at 732.906.2586.

AUTOMOTIVE TECHNOLOGY

Associate in Applied Science (A.A.S.) Degree Program - AUT.AAS

Below are required courses and recommended course groupings and sequences for program completion. Courses may have prerequisites and corequisite requirements. Check course descriptions for details.

Courses		Credits	Requisites/Comments
Semester I			
AUT 111	Minor Automotive Services	3	Corequisite(s): MAT 107
AUT 115	Automotive Brake Systems	2	Corequisite(s): AUT 111
AUT 117	Automotive Electrical Systems	3	Corequisite(s): AUT 111
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
MAT 107	Mathematics I	3	Appropriate score on the college's placement test, MAT 013, MAT 013A/MAT 013B, or departmental approval. Higher level mathematics course can be substituted with departmental approval.
PED ___	Physical Education Elective	1	Students have the option of substituting Health Education Electives in place of the Physical Education Elective.
Semester II			
AUT 122	Analysis and Tune Up	3	AUT 111 Corequisite(s): AUT 124, AUT 126
AUT 124	Automotive HVAC Systems	3	AUT 111
AUT 126	Alignment, Suspension and Steering Systems	2	AUT 111
CSC 105	Computer Applications and Systems	3	
ENG 122 OR ENG 125	English Composition II English Composition II: Writing About Literature	3	A grade of "C" or better in ENG 121
Summer I			
AUT 108	Automotive Technology Work Experience I (A 15-week cooperative education course)	3	AUT 122, AUT 124, AUT 126
Semester III			
AUT 211	Standard Transmission and Drive Train	3	AUT 108
AUT 213	Automatic Transmission I	3	AUT 108 Corequisite(s): AUT 211
AUT 216	Fuel and Emission Systems	3	AUT 108 Corequisite(s): AUT 217
AUT 217	Engine Diagnostics and Repair I	3	AUT 108 Corequisite(s): AUT 216
___ ___	General Education Humanities Elective (GE HUM)	3	
Semester IV			
AUT 208	Automotive Technology Work Experience II (A 15-week cooperative education course)	3	AUT 211, AUT 213, AUT 216, AUT 217
PHY 101	Principles of Physics	4	MAT 107 or equivalent. Higher level Physics course can be substituted with departmental approval.
Summer II			
AUT 226	Automatic Transmission II	2	AUT 213, AUT 208
AUT 228	Engine Diagnostic and Repair II	3	AUT 217, AUT 208
AUT 229	Automotive Electricity and Electronics	3	AUT 208 Corequisite(s): AUT 226, AUT 228
___ ___	General Education Social Sciences Elective (GE SS)	3	
		Total Credits: 65	

Contact Name: Assistant Professor Thom Sabol
Contact Phone: 732.906.2586
Contact Email: **TSabol@middlesexcc.edu**

Biology

BIOLOGY DEPARTMENT

DIVISION OF SCIENCE, MATHEMATICS AND HEALTH TECHNOLOGIES (SCMHT)

Associate in Science (A.S.) Degree

Students choose from a traditional biology major curriculum or an option designed to prepare them for pre-physical therapy, pre-occupational therapy or pre-physician's assistant programs. These curricula parallel the first two years of a baccalaureate degree in biology. The traditional biology major prepares students, upon graduation, to transfer to a four-year college or university to pursue a career in biology related fields such as molecular biology, cell biology, physiology, microbiology, biochemistry, ecology or any biological field. Students interested in pre-medicine, pre-dentistry, pre-chiropractic or pre-veterinary may major in either the Biology preprofessional or Chemistry Science Transfer major. Contact the department chair for assistance in choosing an appropriate major.

What will students learn if they study Biology Transfer or Biology Pre-Professional Degree Options?

They concentrate on the theoretical and applied sciences, and mathematics. Their studies prepare them to meet the challenges of advanced study in professional careers.

Are there any requirements that must be satisfied before taking courses in the major?

A passing score on the college's placement mathematics test for both Algebra I and Algebra II or MAT 013 and MAT 014 is required for all biology majors. In addition, a high school laboratory biology course with a minimum grade of "C" or BIO 010 and a high school laboratory chemistry or CHM 010 with a minimum grade of "C" are also required.

Can Biology majors transfer to a four-year college or university?

The Statewide Transfer Agreement for New Jersey ensures that students who earn an A.A. or A.S. degree at a community college will have those credits fully transferable to a New Jersey public four-year institution, will have completed half of the credits required for a basic four-year degree and will have completed all of the lower division general education requirements. In addition, articulation agreements with private institutions may provide similar transfer provisions. Students should discuss the transfer process with an advisor.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

Contact: Dr. Trace Gerow, department chair, at 732.906.2592.

BIOLOGY OPTION - SCIENCE TRANSFER DEGREE

Associate in Science (A.S.) Degree - BIO.AS

Below are required courses and recommended course groupings and sequences for program completion. Courses may have prerequisites and corequisite requirements. Check course descriptions for details.

Courses		Credits	Requisites/Comments
Semester I			
BIO 123	General Biology I	4	One year of high school laboratory biology or BIO 010 and one year of high school laboratory chemistry or CHM 010. Also appropriate score on the college's placement test or MAT 013 or MAT 013A/MAT 013B.
CHM 123	General Chemistry I	4	MAT 014 or MAT 014A/MAT 014B or appropriate score on the college's placement test and one year of high school laboratory chemistry or CHM 010.
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
MAT 129	Precalculus	4	Appropriate score on the college's placement test and/or satisfactory score on the diagnostic examination, "B" or better in MAT 014, or departmental approval. Students may substitute MAT 014A plus MAT 014B. MAT 131-MAT 132 recommended.
___ ___	Physical/Health Education Elective	1-3	
Semester II			
BIO 124	General Biology II	4	BIO 123
CHM 124	General Chemistry II	4	CHM 123
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
MAT 131	Analytic Geometry and Calculus I	4	MAT 129, or MAT 129A/MAT 129B, or appropriate score on the college's placement test and/or satisfactory score on the diagnostic examination, or departmental approval.
Semester III			
BIO 221	Microbiology	4	BIO 118 or BIO 124; CHM 118 or CHM 124 BIO 221 is offered only in the fall semester.
PHY 121	General Physics	4	MAT 129 or MAT 129A/MAT 129B
___ ___	General Education Social Sciences Elective (GE SS)	3	
___ ___	General Education Humanities Elective (GE HUM)	3	
CSC 106	Intermediate PC Applications with Programming	3	
Semester IV			
___ ___	Biology Elective	4	Students may choose BIO 228 (offered only in the fall semester) or BIO 224 (offered only in the spring semester) or BIO 229 (offered only in the spring semester) or BIO 240.
PHY 122	General Physics	4	PHY 121
___ ___	General Education Humanities Elective (GE HUM)	3	
OR			
___ ___	General Education Social Sciences Elective (GE SS) Science/Mathematics Elective	3-4	Students may select from BIO 224 (offered only in the spring semester), BIO 228 (offered only in the fall semester), BIO 229 (offered only in the spring semester) BIO 240, CHM 221 with CHM 227, or MAT 132 or a course with permission of the department chairperson.

Total Credits: 62-65

BIOLOGY PRE-PROFESSIONAL OPTION - SCIENCE TRANSFER DEGREE

Associate in Science (A.S.) Degree - BPPST.AS

(Recommended for students interested in Pre-Physician's Assistant, Pre-Occupational Therapy or Pre-Physical Therapy programs)

Courses		Credits	Requisites/Comments
Semester I			
BIO 123	General Biology I	4	One year of high school laboratory biology or BIO 010 and one year of high school laboratory chemistry or CHM 010. Also appropriate score on the college's placement test or MAT 013.
CHM 123	Chemistry I	4	MAT 014 or MAT 014A/MAT 014B or appropriate score on the college's placement test and one year of high school chemistry.
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
MAT 129	Precalculus	4	Appropriate score on the college's placement test and/or satisfactory score on the diagnostic examination, "B" or better in MAT 014, or departmental approval. Students may substitute MAT 014A plus MAT 014B. MAT 131-MAT 132 recommended.
___ ___	Physical/Health Education Elective	1-3	
Semester II			
BIO 124	General Biology II	4	BIO 123
CHM 124	Chemistry II	4	CHM 123
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
MAT 131	Analytic Geometry and Calculus I	4	MAT 129, or MAT 129A/MAT 129B, or appropriate score on the college's placement test and/or satisfactory score on the diagnostic examination, or departmental approval.
Semester III			
BIO 111	Human Anatomy and Physiology I	4	One year of high school laboratory biology or BIO 010 and one year of high school laboratory chemistry or CHM 010 and appropriate score on the college's placement test or MAT 013 or MAT 013A/MAT 013B
PHY 121	General Physics	4	MAT 129 or MAT 129A/MAT 129B.
___ ___	General Education Social Sciences Elective (GE SS)	3	
___ ___	General Education Humanities Elective (GE HUM)	3	
CSC 106	Intermediate PC Applications with Programming	3	
Semester IV			
BIO 112	Human Anatomy and Physiology II	4	BIO 111
PHY 122	General Physics	4	PHY 121
___ ___	General Education Social Sciences Elective (GE SS)	3	
OR			
	General Education Humanities Elective (GE HUM)		
___ ___	Science/Math Elective	3-4	Students may select from BIO 221, BIO 228 (offered only in the fall semester), BIO 229 (offered only in the spring semester), BIO 240, CHM 221 with CHM 227, or MAT 132 or a course with permission of the department chairperson.

Total Credits: 62-65

Contact Name: Dr. Trace Gerow
Contact Phone: 732.906.2592
Contact Email: **TGerow@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/academi/bio**

Biotechnology

BIOLOGY DEPARTMENT

DIVISION OF SCIENCE, MATHEMATICS AND HEALTH TECHNOLOGIES (SCMHT)

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

This program prepares students for career opportunities in pharmaceutical firms and biotechnology companies.

What will students learn by studying Biotechnology?

They acquire knowledge and develop practical skills in biology, chemistry, microbiology, modern biological techniques and laboratory instrumentation.

Are there any requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the college's placement test or by completing the appropriate class. Students must have earned a grade of "C" or better in one year of high school laboratory science.

Can Biotechnology majors transfer to a four-year college or university?

Articulation agreements with public and private institutions offer students who earn the A.A.S. degree the opportunity to transfer all of their coursework to the four-year institution. Students in specialized programs, or who earn an A.A.S. degree should discuss the transfer process with an advisor.

How long will it take for students to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

Contact: Dr. Trace Gerow, department chair, at 732.906.2592.

BIOTECHNOLOGY

Associate in Applied Science (A.A.S.) Degree - BIO.AAS

Below are required courses and recommended course groupings and sequences for program completion.

Courses		Credits	Requisites/Comments
Semester I			
BIO 119	Biology for Technology I	4	Appropriate score on the college's placement test or MAT 013 or MAT 013A/MAT 013B and one year high school laboratory science or BIO 010 or CHM 010. BIO 119 is offered only in the fall semester.
CHM 117	Chemistry I	4	Appropriate score on the college's placement test or MAT 013 or MAT 013A/MAT 013B and one year high school laboratory science or BIO 010 or CHM 010 or departmental approval. CHM 117 is offered only in the fall semester.
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
MAT 107	Mathematics I	3	Appropriate score on the college's placement test or MAT 013 or MAT 013A/MAT 013B or departmental approval.
SCI 103	Safety and FDA Regulations for Lab Technicians	1	SCI 103 is offered only in fall semester.
___ ___	Physical/Health Education Elective	1-3	
Semester II			
BIO 120	Biology for Technology II	4	BIO 119 BIO 120 is offered only in the spring semester.
CHM 118	Chemistry II	4	CHM 117 CHM 118 is offered only in the spring semester.
ENG 122 OR	English Composition II	3	A grade of "C" or better in ENG 121
ENG 125	English Composition II: Writing About Literature		
MAT 108	Mathematics II	3	MAT 107
SCI 104	Technical Communications	1	Corequisite(s): ENG 121 SCI 104 is offered only in the spring semester.
CSC 105	Computer Applications and Systems	3	
Semester III			
BIO 221	Microbiology	4	BIO 118, BIO 120 or BIO 123; CHM 118 or CHM 124 BIO 221 is offered only in the fall semester.
CHM 203	Principles of Organic Chemistry	3	CHM 118 or equivalent CHM 203 is offered only in the fall semester.
BIO 205	Methods in DNA Technology	3	BIO 120; CHM 118 or CHM 124; MAT 108 BIO 205 is offered only in the fall semester.
SCI 215	Current Good Manufacturing Practices and Quality Control for Biotechnology	1	SCI 215 is offered only in the fall semester.
SPE 121	Fundamentals of Public Speaking	3	
___ ___	General Education Social Sciences Elective (GE SS)	3	
Semester IV			
BIO 226	Biological Technology Cooperative Education	3	Permission of the department chairperson
BIO 224	Applied Microbiology	4	BIO 221 BIO 224 is offered only in the spring semester.
CHM 220	Methods of Chromatographic Separation	4	CHM 201, CHM 219 or equivalent CHM 220 is offered only in the spring semester.
BIO 206	Protein Purification and Tissue Culture Techniques	3	BIO 205; Must co-enroll CHM 220 BIO 206 is offered only in the spring semester.
SCI 216	Current Issues and Opportunities in Lab Technology	1	SCI 216 is offered only in the spring semester.

Total Credits: 66-68

Contact Name: Dr. Trace Gerow
Contact Phone: 732.906.2592
Contact Email: **TGerow@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/academi/bio**

Business Administration Degree (Designed for Transfer)

BUSINESS ADMINISTRATION AND MANAGEMENT DEPARTMENT

DIVISION OF BUSINESS, COMPUTER SCIENCE AND ENGINEERING TECHNOLOGIES (BCSET)

Associate in Science (A.S.) Degree

This program parallels the first two years of the bachelor's degree program at a four-year college or university. It is designed to transfer.

Why major in Business Administration?

Students prepare to transfer to a four-year college or university in any field of business after earning their associate degree.

What will students learn if they study Business Administration?

The program is an intensive one that includes challenging mathematics and business courses, as well as sciences and general education.

Can students transfer to a four-year college or university?

The Statewide Transfer Agreement for New Jersey ensures that students who earn an A.A. or A.S. degree at a community college will have those credits fully transferable to a New Jersey public four-year institution, will have completed half of the credits required for a basic four-year degree and will have completed all of the lower division general education requirements. In addition, articulation agreements with private institutions may provide similar transfer provisions. Students should discuss the transfer process with an advisor.

Are there any requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the college placement test or by completing the appropriate class. Students also need a grade of "C" or higher in high school algebra II, geometry and in one year of laboratory science.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

Contact: Professor Nancy Bailey, department chair, at 732.906.2594 or **bam@middlesexcc.edu**.

BUSINESS ADMINISTRATION DEGREE (DESIGNED FOR TRANSFER)

Associate in Science (A.S.) Degree - BUS.AS

Below are required courses and recommended course groupings and sequences for program completion. Courses may have prerequisites and corequisite requirements. Check course descriptions for details.

Courses		Credits	Requisites/Comments
Semester I			
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
___ ___	Mathematics Requirement *Students must complete a minimum of 6 credits in mathematics in one of the following sequences:*	3-4	
	MAT 123 and MAT 124		MAT 014 (or MAT 014A and MAT 014B) or appropriate score on the college's placement test.
	OR		
	MAT 129 (or MAT 129A and MAT 129B) and MAT 131 (or MAT 131A and MAT 131B)		Appropriate score on the college's placement test and/or satisfactory score on the diagnostic test, "C" or better in MAT 014 (or MAT 014A and MAT 014B), or departmental approval.
	OR		
	MAT 131 (or MAT 131A and MAT 131B) and MAT 132		Appropriate score on the college's placement test or diagnostic exam, and MAT 129 (or MAT 129A and MAT 129B).
	OR		
	MAT 131 (or MAT 131A and MAT 131B) and MAT 285		Appropriate score on the college's placement test or diagnostic exam, and MAT 129 or (MAT 129A and MAT 129B).
ACC 101	Financial Accounting	4	
BUS 101	Business Organization and Management	3	
___ ___	General Education Social Sciences Elective (GE SS)	3	
Semester II			
ENG 122 OR ENG 125	English Composition II English Composition II: Writing About Literature	3	A grade of "C" or better in ENG 121
___ ___	Mathematics Requirement *Second course in mathematics sequence (see mathematics requirement in Semester I above)*	3-4	
ACC 102	Managerial Accounting	4	ACC 101
ECO 201	Principles of Economics I (GE SS)	3	A passing score on the algebra portion on the college's placement test or MAT 013. Students must complete ECO 201 and ECO 202 to fulfill GE SS requirement.
SPE 121	Fundamentals of Public Speaking (GE COM)	3	
Semester III			
ECO 202	Principles of Economics II (GE SS)	3	ECO 201 or permission of department chairperson. Students must complete ECO 201 and ECO 202 to fulfill GE SS requirement.
BUS 201	Business Law I	3	
BUS 107	Computer Applications for Business	3	
___ ___	Business Elective *Recommended business electives are as follows (3 credits each):*	3	
	BUS 202 Business Law II		BUS 201
	MGT 210 Concepts of Business Management		BUS 101
	MKT 201 Marketing I		BUS 101
___ ___	Physical/Health Education Elective	1-3	
Semester IV			
___ ___	General Education Humanities Elective (GE HUM)	3	
___ ___	General Education Science Elective (GE MST)	4	Students must select a course with the GE MST designation from the following sciences: BIO, CHM, PHY, SCI.
___ ___	Elective	3	
___ ___	Business Elective *Recommended business electives are as follows (3 credits each):*	3	
	BUS 202 Business Law II		BUS 201
	MGT 210 Concepts of Business Management		BUS 101
	MKT 201 Marketing I		BUS 101
___ ___	Business Elective *Recommended business electives are as follows (3 credits each):*	3	
	BUS 202 Business Law II		BUS 201
	MGT 210 Concepts of Business Management		BUS 101
	MKT 201 Marketing I		BUS 101

Total Credits: 61-65

Contact Name: Professor Nancy Bailey
Contact Phone: 732.906.2594
Contact Email: **bam@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/departments/bam**

Chemical Technology

CHEMISTRY/PHYSICS DEPARTMENT

DIVISION OF SCIENCE, MATHEMATICS AND HEALTH TECHNOLOGIES (SCMHT)

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

This major is a job-oriented program that prepares students for career opportunities in the chemical/pharmaceutical industries as research assistants, laboratory technicians, control analysts, production supervisors and quality control analysts. With experience, students may find positions in sales, production, and consumer service. Alternatively, students may choose to earn the Certificate, which is offered in the evenings.

What will students learn if they study Chemical Technology?

They learn the basic principles of inorganic and organic chemistry and develop practical skills in chemical procedures, chemical analysis and laboratory instrumentation.

Are there any requirements students must satisfy before they start taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the college's placement test or completion of the appropriate course. Students must also have a grade of "C" or better in one year of high school laboratory science.

Can Chemical Technology graduates transfer to a four-year college or university?

Articulation agreements with public and private institutions offer students who earn the A.A.S. degree the opportunity to transfer all of their coursework to the four-year institution. Students in specialized programs, or who earn an A.A.S. degree should discuss the transfer process with an advisor.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

Contact: Dr. Diane Trainor, department chair, at 732.906.2587 or **DTrainor@middlesexcc.edu**.

CHEMICAL TECHNOLOGY

Associate in Applied Science (A.A.S.) Degree - CHM.AAS

Below are required courses and recommended course groupings and sequences for program completion. Courses may have prerequisites and corequisite requirements. Check course descriptions for details.

Courses		Credits	Requisites/Comments
Semester I			
BIO 119	Biology I	4	Appropriate score on the college's placement test or MAT 013 and one year of high school laboratory science or BIO 010 or CHM 010. Students may substitute BIO 123-BIO 124 for BIO 119-BIO 120 if they have completed a high school biology lab course and high school lab chemistry.
CHM 117	Chemistry I	4	Appropriate score on the college's placement test or MAT 013 and one year of high school laboratory science, CHM 010 or departmental approval. Students may substitute CHM 123-CHM 124 for CHM 117-CHM 118 if they have completed a high school chemistry laboratory course.
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
MAT 107	Mathematics I	3	Appropriate score on the college's placement test, MAT 013 or MAT 013A/MAT 013B, or departmental approval. Students may substitute MAT 123-MAT 124 or MAT 129-MAT 131 for MAT 107-MAT 108.
___ ___	Physical/Health Education Elective	1-3	
Semester II			
BIO 120	Biology II	4	BIO 119
CHM 118	Chemistry II	4	CHM 117
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
MAT 108	Mathematics II	3	MAT 107
CSC 105	Computer Applications and Systems	3	
Semester III			
PHY 101	Principles of Physics	4	MAT 107 or equivalent
CHM 201	Principles of Organic Chemistry (Lecture only)	3	CHM 118 or equivalent
OR			Students may substitute CHM 223 for CHM 201
CHM 203	Principles of Organic Chemistry	4	and CHM 203 if they have completed CHM 124 or equivalent.
SCI 103	Safety and FDA Regulations for Lab Technicians	1	
___ ___	General Education Social Sciences Elective (GE SS)	3	
CHM 219	Classical Volumetric and Spectrophotometric Analysis	5	CHM 118, MAT 014 or equivalent
Semester IV			
CHM 220	Methods of Chromatographic Separation	4	CHM 219 CHM 201, CHM 203 or equivalent
ENV 221	Hazardous Waste Management	3	
SCI 104	Technical Communication	1	Corequisite(s): ENG 121
___ ___	General Education Humanities Elective (GE HUM)	3	
___ ___	Technical Elective	3-4	
	Technical Elective Choices (select one):		
	CHM 202 Biochemistry	4	CHM 201
	CHM 226 Chemical Technology Cooperative Education	3	CHM 201 or CHM 223, CHM 219 and department approval
	ENV 222 Water and Wastewater Analysis	3	BIO 118, CHM 118, MAT 013

Total Credits: 62-66

CHEMICAL TECHNOLOGY CERTIFICATE - CHM.CER

Courses		Credits	Requisites/Comments
CHM 117	Chemistry I	4	Appropriate score on the college's placement test or MAT 013 and one year of high school laboratory science, CHM 010 or departmental approval. Students may substitute CHM 123-CHM 124 for CHM 117-CHM 118 if they have completed a high school chemistry laboratory course.
CHM 118	Chemistry II	4	CHM 117
CHM 203	Principles of Organic Chemistry	4	CHM 118 or equivalent. Students may substitute CHM 223 for CHM 201 and CHM 203 if they have completed CHM 124 or equivalent.
CHM 219	Classical Volumetric and Spectrophotometric Analysis	5	CHM 118, MAT 014 or equivalent
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
MAT 107	Mathematics I	3	Appropriate score on the college's placement test, MAT 013 or MAT 013A/MAT 013B, or departmental approval. Students may substitute MAT 123-MAT 124 or MAT 129-MAT 131 for MAT 107-MAT 108.
MAT 108	Mathematics II	3	MAT 108
CSC 105	Computer Applications and Systems	3	

Total Credits: 32

Contact Name: Dr. Diane Trainor
Contact Phone: 732.906.2587
Contact Email: **DTrainor@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/academi/chm**

Chemistry

CHEMISTRY/PHYSICS DEPARTMENT

DIVISION OF SCIENCE, MATHEMATICS AND HEALTH TECHNOLOGIES (SCMHT)

Associate in Science (A.S.) Degree

The Chemistry Transfer program parallels the first two years of a baccalaureate degree program at four-year colleges and universities. The Chemistry Transfer degree prepares students to transfer to a four-year college or university to pursue professional careers in biology, biochemistry, chemistry, and molecular biology. This degree will prepare students for pre-professional programs including pre-pharmacy. Students interested in pre-chiropractic, pre-dental, pre-medicine or pre-veterinary may major in either the traditional chemistry major or the biology major.

What will students learn if they study Chemistry Transfer?

They will learn the basics of general chemistry and organic chemistry that will prepare them to meet the challenges of advanced chemistry courses at the upper division colleges and universities.

Are there any requirements students must satisfy before taking courses in the major?

A passing score on the college's placement mathematics test for both Algebra I and Algebra II or MAT 013 and MAT 014 is required for all Chemistry majors. In addition, a high school laboratory chemistry course with a minimum grade of "C" or CHM 010 and a high school laboratory biology course or BIO 010 with a minimum grade of "C" are also required.

Can Chemistry students transfer to four-year colleges and universities?

The Statewide Transfer Agreement for New Jersey ensures that students who earn an A.A. or A.S. degree at a community college will have those credits fully transferable to a New Jersey public four-year institution, will have completed half of the credits required for a basic four-year degree and will have completed all of the lower division general education requirements. In addition, articulation agreements with private institutions may provide similar transfer provisions. Students should discuss the transfer process with an advisor.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

Contact: Dr. Diane Trainor, department chair, at 732.906.2587 or **DTrainor@middlesexcc.edu**.

CHEMISTRY OPTION - SCIENCE TRANSFER DEGREE

Associate in Science (A.S.) Degree - CHM.AS

Below are required courses and recommended course groupings and sequences for program completion.

Courses		Credits	Requisites/Comments
Semester I			
BIO 123	General Biology I	4	One year of high school laboratory biology or BIO 010 and one year of high school laboratory chemistry or CHM 010. Also appropriate score on the college's placement test or MAT 013 or MAT 013A/MAT 013B.
CHM 123	General Chemistry I	4	MAT 014 or appropriate score on the college's placement test and one year of high school chemistry or CHM 010.
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
MAT 129	Precalculus	4	Appropriate score on the college's placement test and/or satisfactory score on the diagnostic examination, "B" or better in MAT 014 or departmental approval. Can be taken in two semesters MAT 129A/MAT 129B.
___ ___	Physical/Health Education Elective	1-3	Students may take a Health Elective (3 credits) in place of Physical Education.
Semester II			
BIO 124	General Biology II	4	BIO 123
CHM 124	General Chemistry II	4	CHM 123
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
MAT 131	Analytical Geometry and Calculus I	4	MAT 129, or MAT 129A/MAT 129B, or appropriate score on the college's placement test and/or satisfactory score on the diagnostic examination, or departmental approval.
Semester III			
CHM 223	Organic Chemistry I	4	CHM 124 or equivalent
PHY 121	General Physics I	4	MAT 129 or MAT 129B
CSC ___	Computer Science Elective	3	Students may choose CSC 105 or higher
___ ___	General Education Humanities Elective (GE HUM)	3	
___ ___	General Education Social Sciences Elective (GE SS)	3	
Semester IV			
CHM 224	Organic Chemistry II	4	CHM 223
PHY 122	General Physics II	4	PHY 121
___ ___	Elective	3-4	
	Recommended Elective:		
	CHM 240 Research in Chemistry		BIO 124, CHM 124, ENG 121 and departmental approval
___ ___	General Education Humanities Elective (GE HUM)	3	
OR			
	General Education Social Sciences Elective (GE SS)		

Total Credits: 62-65

Contact Name: Dr. Diane Trainor
Contact Phone: 732.906.2587
Contact Email: **DTrainor@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/academi/chm**

Civil Engineering Technology

ENGINEERING TECHNOLOGIES DEPARTMENT

DIVISION OF BUSINESS, COMPUTER SCIENCE AND ENGINEERING TECHNOLOGIES (BCSET)

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

Civil Engineering Technology graduates find employment opportunities in the design, construction and inspection of airports, bridges, water treatment systems, dams, railroads and highway planning and maintenance. Specific job responsibilities include computer-aided design/drafting, material testing, site surveying and cost estimating. Students have several choices with this major. Students can earn the A.A.S. Degree in Civil Engineering Technology, or the Land Surveying Option. The emphasis in this program is on practical applications that provide students with skills that can be used on the job as civil engineering technicians.

Can students transfer to a four-year college or university?

Students may choose to participate in the Joint Admissions Program with the New Jersey Institute of Technology. Many other four-year colleges and universities will apply some or all of the courses taken toward a bachelor's degree.

What will students learn if they study Civil Engineering Technology?

Students acquire a foundation in communications, calculations, and engineering principles along with the specifics of civil/construction engineering. All technical courses provide a balance between theory and practice.

Are there any requirements students must satisfy before taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the college placement test or completion of the appropriate. Students must also have a grade of "C" or better in high school algebra II and geometry.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions. They can complete the Certificate in three semesters

Questions?

Contact: Assistant Professor Thom Sabol, department chair, at 732.906.2586.

CIVIL ENGINEERING TECHNOLOGY

Associate in Applied Science (A.A.S.) Degree - CIT.AAS

Below are required courses and recommended course groupings and sequences for program completion. Courses may have prerequisites and corequisite requirements. Check course descriptions for details.

Courses		Credits	Requisites/Comments
Semester I			
MCT 101	Introduction to Technology	2	MAT 013 or passing score on the college's placement test. Corequisite(s): MAT 014
MAT 129A	Precalculus Part A	2	Appropriate score on the college's placement test and/or satisfactory score on the diagnostic examination, "C" or better in MAT 014 or MAT 014A and MAT 014B, or departmental approval. MAT 129 may be substituted for MAT 129A & MAT 129B.
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
CIT 125	Construction Estimating	2	
MEC 123	Technical Graphics/CAD I	3	
PED ___	Physical Education Elective	1	Students have the option of substituting Health Education Electives in place of the Physical Education Elective.
___ ___	General Education Social Sciences Elective (GE SS)	3	
Semester II			
MAT 129B	Precalculus Part B	2	MAT 129A or equivalent
ENG 122 OR ENG 125	English Composition II OR English Composition II: Writing About Literature	3	A grade of "C" or better in ENG 121
CIT 105	Statics for Technicians	3	MCT 101, MAT 129A or MAT 129
CIT 126	Advanced Civil Drawing/CAD II	3	MEC 123
CIT 104	Construction Surveying I	3	MAT 129A or MAT 129
___ ___	General Education Humanities Elective (GE HUM)	3	
Semester III			
MAT 131A	Analytic Geometry & Calculus I Part A	2	MAT 129 or MAT 129B or appropriate score on the college's placement test and/or satisfactory score on the diagnostic examination or departmental approval. MAT 131 may be substituted for MAT 131A & MAT 131B.
PHY 121	General Physics I	4	MAT 129B or MAT 129
CIT 203	Strength of Materials	4	CIT 105
CIT 205	Construction Surveying II	3	CIT 104
CIT 216	Soil Mechanics	3	CIT 105
Semester IV			
MAT 131B	Analytic Geometry & Calculus Part B	2	MAT 131A
PHY 122	General Physics II	4	PHY 121
CIT 212	Water Resources Technology	3	MAT 129B or MAT 129 and CIT 105
CIT 218	Steel Design	3	CIT 203
CIT 219	Reinforced Concrete Design	3	CIT 203
CIT 260	Civil/Construction Design Project	2	CIT 203, CIT 205, CIT 125 Corequisite(s): CIT 212, CIT 217

Total Credits: 66

CIVIL ENGINEERING TECHNOLOGY CERTIFICATE - CIT.CER

Courses		Credits	Requisites/Comments
Semester I			
MCT 101	Introduction to Technology	2	MAT 013 or passing score on the college´s placement test. Corequisite(s): MAT 014
MEC 123	Technical Graphics/CAD I	3	
CIT 126	Advanced Civil Drawing/CAD II	3	MEC 123
CIT 125	Construction Estimating	2	
CIT 104	Construction Surveying I	3	MAT 129 or MAT 129A
CIT 205	Construction Surveying II	3	CIT 104
CIT 105	Statics for Technicians	3	MCT 101, MAT 129 or MAT 129A
CIT 203	Strength of Materials	4	CIT 105
MAT 129A	Precalculus Part A	2	Appropriate score on the college's placement test and/or satisfactory score on the diagnostic examination, "C" or better in MAT 014 or MAT 014A and MAT 014B, or departmental approval. MAT 129 may be substituted for MAT 129A & MAT 129B.
MAT 129B	Precalculus Part B	2	MAT 129A or equivalent courses
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.

Total Credits: 31

LAND SURVEYING - OPTION

Associate in Applied Science (A.A.S.) Degree - CITS.AAS

Courses		Credits	Requisites/Comments
Semester I			
MCT 101	Introduction to Technology	2	MAT 013 or passing score on the college´s placement test. Corequisite(s): MAT 014
MAT 129A	Precalculus Part A	2	Appropriate score on the college's placement test and/or satisfactory score on the diagnostic examination, "C" or better in MAT 014 or MAT 014A and MAT 014B, or departmental approval. MAT 129 may be substituted for MAT 129A & MAT 129B.
ENG 121	English I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
MEC 123	Technical Graphics/CAD I	3	
___ ___	General Education Humanities Elective (GE HUM)	3	
PED ___	Physical Education Elective	1	Students have the option of substituting Health Education Elective in place of the Physical Education Elective.
Semester II			
MAT 129B	Precalculus Part B	2	MAT 129A or equivalent courses
ENG 122 OR ENG 125	English Composition II English Composition II: Writing About Literature	3	A grade of "C" or better in ENG 121
CSC 105	Computer Applications & Systems	3	
CIT 126	Advanced Civil Drawing/CAD II	3	MEC 123
CIT 104	Construction Surveying I	3	MAT 129 or MAT 129A
BUS 201	Business Law I	3	
Semester III			
MAT 131A	Analytic Geometry & Calculus I Part A	2	MAT 129 or MAT 129B or appropriate score on the college's placement test and/or satisfactory score on the diagnostic examination, or departmental approval. MAT 131 may be substituted for MAT 131A & MAT 131B.
PHY 121	General Physics I	4	MAT 129 or MAT 129B
CIT 205	Construction Surveying II	3	CIT 104
BUS 202	Business Law II	3	BUS 201
CIT 151	Urban and Suburban Development	3	CIT 205
Semester IV			
MAT 131B	Analytic Geometry & Calculus I Part B	2	MAT 131A
PHY 122	General Physics II	4	PHY 121
CIT 252	Boundary Law	3	
CIT 212	Water Resources Technology	3	MAT 129 or MAT 129B and CIT 105
___ ___	General Education Social Sciences Elective (GE SS)	3	
___ ___	Elective *Take one course from the following: CIT 125, MGT 200, SBM 120, SCI 108, SCI 155 or SCI 157*	3-4	

Total Credits: 64-65

Contact Name: Assistant Professor Thom Sabol
Contact Phone: 732.906.2586
Contact Email: **TSabol@middlesexcc.edu**

Computer Science

COMPUTER SCIENCE AND INFORMATION TECHNOLOGY DEPARTMENT

DIVISION OF BUSINESS, COMPUTER SCIENCE AND ENGINEERING TECHNOLOGIES (BCSET)

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

The Computer & Information Systems option leads to the Associate in Applied Science Degree in Computer Science. Students learn object oriented programming in C++ or Java and event driven programming in Visual Basic, client/server architecture, analysis & design of database systems, networking technologies, Windows and LINUX System Administration. Through a cooperative education program, students can gain work experience and earn college credits during their studies at Middlesex County College.

What will students learn if they study Computer Science?

Students learn on PC's running the DOS, Windows, and LINUX operating systems. They learn several programming languages and administration of both LINUX and Windows systems. Students develop problem-solving and communication skills using modern information processing techniques.

Are there any requirements students must satisfy before taking courses in the major?

Algebra II is a prerequisite for all Computer Science majors. Algebra II competency may be verified with a passing score on the college's placement test or by completing the appropriate course. Students must also have a grade of "C" or better in algebra II and geometry.

Why major in Computer & Information Systems - Network Administration & Support Option?

Network Administration and Support Option of the CIS program leads to the Associate in Applied Science Degree in Computer Science. Students learn network administration of Windows and LINUX operating systems. Problem solving skills are taught through the use of the object oriented programming language C++ or Java and the event driven programming Visual Basic. This program prepares students to take the certification tests for a PC Hardware operating systems technology, networking and security and Microsoft Windows MCP (Microsoft Certified Professional). Through a cooperative education program, students can gain work experience and earn college credits during their studies at Middlesex County College.

Can students transfer to a four-year college or university?

Articulation agreements with public and private institutions offer students who earn the A.A.S. degree the opportunity to transfer all of their coursework to the four-year institution. Students in specialized programs, or who earn an A.A.S. degree should discuss the transfer process with an advisor.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions. They can complete the certificate in one year.

Questions?

Contact: Professor Frank Burke, department chair, at 732.906.2526 or **FBurke@middlesexcc.edu**.

COMPUTER AND INFORMATION SYSTEMS

Associate in Applied Science (A.A.S.) GENERAL OPTION - CSI.AAS

Below are required courses and recommended course groupings and sequences for program completion. Courses may have prerequisites and corequisite requirements. Check course descriptions for details.

Courses		Credits	Requisites/Comments
Semester I			
CSC 105	Computer Applications and Systems	3	
OR			
CSC 106	Intermediate PC Applications with Programming	3	BUS 107 or CSC 105 or CSC 107 or MCT 101 or one year of high school computer applications or a programming course and MAT 014 or appropriate score on the college's placement test.
CSC 133	Introduction to Computer Science using C++	4	MAT 014 or appropriate score on the college's placement test. Corequisite(s): MAT 129 or MAT 129A
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
MAT 116	College Algebra	3	Prerequisite(s): MAT 014
OR			
MAT 129	Precalculus	4	Appropriate score on the college's placement test and/or satisfactory score on the diagnostic examination, "B" or better in MAT 014, or departmental approval.
OR			
MAT 129A	Precalculus (Part A)	2	Appropriate score on the college's placement test and/or satisfactory score on the diagnostic examination, "C" or better in MAT 014 or MAT 014A and MAT 014B, or departmental approval.
and			
MAT 129B	Precalculus (Part B)	2	MAT 129A or equivalent courses
___ ___	General Education Social Sciences Elective (GE SS)	3	
Semester II			
CSC 110	Microcomputer Operating Systems and Architecture	3	CSC 105 or CSC 106 or BUS 107
CSC 134	Object Oriented Programming Using C++	4	Prerequisite(s): CSC 133 and MAT 116 or MAT 129 or MAT 129A
CSC 208	Visual BASIC Programming	4	CSC 106 or CSC 161 or CSC 133
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
MAT 123	Statistics I	3	MAT 014 or appropriate score on the college's placement test.
OR			
MAT 131	Analytic Geometry and Calculus I	4	MAT 129 or MAT 129A/MAT 129B or appropriate score on the college's placement test and/or satisfactory score on the diagnostic examination, or departmental approval.
OR			
MAT 131A	Analytic Geometry and Calculus I (Part A)	2	MAT 129 or MAT 129A/MAT 129B or appropriate score on the college's placement test and/or satisfactory score on the diagnostic examination, or departmental approval.
and			
MAT 131B	Analytic Geometry and Calculus I (Part B)	2	MAT 131A
Semester III			
CSC 235	Data Structures	4	CSC 134 and MAT 116 or MAT 129B or MAT 129
CSC 241	Web Programming	4	CSC 134 or CSC 162
CSC 245	UNIX* and Shell Programming	4	CSC 133 or CSC 161
___ ___	Physical/Health Education Elective	1-3	
Semester IV			
CSC 200	Networking Technologies	3	CSC 110
CSC 239	Database Concepts	3	CSC 133 or CSC 161
CSC 246	UNIX/ Web Server Administration	3	CSC 245
___ ___	General Education Humanities Elective (GE HUM)	3	
___ ___	*Choose Technical Elective listed below:*	3	
	CSC 116 Introduction to Information Systems Security	3	CSC 105 or CSC 106 or BUS 107
	CSC 126 Help Desk Customer Service	3	CSC 105 or CSC 106 or BUS 107 and ENG 121
	CSC 127 Help Desk Operation	3	CSC 126
	CSC 205 Computer Science Work Experience I/	3	Completion of all courses in first year of CIS or
	CSC 206 Computer Science Work Experience II	3	Network Administration Option.
	CSC 248 PC Service and Support	3	CSC 110 and CSC 200
	CSC 251 Windows Workstation Administration	3	CSC 200
	CSC 252 Windows Server Administration	3	CSC 251
	CSC 261 Information Technology Management	3	CSC 133 or CSC 161 and CSC 200 and ENG 121
	Other Electives:		
	CSC 211 Programming in JAVA	4	CSC 134 or CSC 162
	MAT 132 Analytic Geometry and Calculus II	4	MAT 131 or equivalent
	Science Elective:	4	

Total Credits: 61-66

NETWORK ADMINISTRATION AND SUPPORT

Associate in Applied Science (A.A.S.) Networking Option - CSNN.AAS

Courses		Credits	Requisites/Comments
Semester I			
CSC 105	Computer Applications and Systems	3	
OR			
CSC 106	Intermediate PC Applications with Programming	3	BUS 107 or CSC 105 or CSC 107 or MCT 101 or one year of high school computer applications or a programming course and MAT 014 or appropriate score on the college's placement test.
CSC 133	Introduction to Computer Science using C++	4	MAT 014 or appropriate score on college's placement test.
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
MAT 116	College Algebra	3	MAT 014
OR			
MAT 129	Precalculus	4	Appropriate score on the college's placement test and/or satisfactory score on the diagnostic examination, "B" or better in MAT 014 or departmental approval.
OR			
MAT 129A	Precalculus (Part A)	2	Appropriate score on the college's placement test and/or satisfactory score on the diagnostic examination, "C" or better in MAT 014 or MAT 014A and MAT 014B or departmental approval.
and			
MAT 129B	Precalculus (Part B)	2	MAT 129A or equivalent courses
___ ___	General Education Social Sciences Elective (GE SS)	3	
Semester II			
CSC 110	Microcomputer Operating Systems and Architecture	3	CSC 105 or CSC 106 or BUS 107
CSC 208	Visual BASIC Programming	4	CSC 106 or CSC 133 or CSC 161
CSC 116	Introduction to Information Systems Security	3	CSC 105 or CSC 106 or BUS 107
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
MAT 123	Statistics I	3	MAT 014 or appropriate score on the college's placement test.
OR			
MAT 131	Analytic Geometry and Calculus I	4	MAT 129 or MAT 129A/MAT 129B or appropriate score on the college's placement test and/or satisfactory score on the diagnostic examination, or departmental approval.
OR			
MAT 131A	Analytic Geometry and Calculus I (Part A)	2	MAT 129 or MAT 129A/MAT 129B or appropriate score on the college's placement test and/or satisfactory score on the diagnostic examination, or departmental approval.
and			
MAT 131B	Analytic Geometry and Calculus I (Part B)	2	MAT 131A
Semester III			
CSC 200	Networking Technologies	3	CSC 110
CSC 245	UNIX and Shell Programming	4	CSC 133 or CSC 161
CSC 251	Windows Workstation Administration	3	CSC 200
___ ___	*Choose Technical Elective listed below:*	3	All students should consult a computer science advisor.
	CSC 126 Help Desk Customer Service	3	CSC 105 or CSC 106 or BUS 107 and ENG 121
	CSC 127 Help Desk Operation	3	CSC 126
	CSC 205 Computer Science Work Experience I/ CSC 206 Computer Science Work Experience II	3	Completion of all courses in first year of CIS or Network Administration Option.
	CSC 225 Systems Analysis	3	CSC 134 or CSC 162
	CSC 239 Database Concepts	3	CSC 133 or CSC 161
	CSC 261 Information Technology Management	3	CSC 133 or CSC 161 and CSC 200 and ENG 121
	ELT 111 Digital Electronics	3	MAT 013
	ELT 226 Microcomputers	3	ELT 111
	ELT 239 Digital/Data Communications and Networking	3	ELT 226
	Other Electives:		
	CSC 134 Object Oriented Programming using C++	4	Prerequisite(s): CSC 133 and MAT 116 or MAT 129 or MAT 129A Corequisite(s): MAT 126 or MAT 128 or MAT 131 or MAT 131A
	CSC 211 Programming in JAVA	4	CSC 134 or CSC 162
	CSC 230 Multimedia Production and Authoring Tools	4	CSC 134
	CSC 235 Data Structures	4	CSC 134 and MAT 116 or MAT 129 or MAT 129B
	CSC 241 Web Programming	4	CSC 134 or CSC 162
	MAT 132 Analytic Geometry and Calculus II	4	MAT 131, MAT 131A/MAT 131B or equivalent

	Science Elective:	4	
PED/HED	Physical/Health Education Elective	1-3	
Semester IV			
CSC 246	UNIX and Web Server Administration	3	CSC 245
CSC 248	PC Service and Support	3	CSC 200 and CSC 110
CSC 252	Windows Server Administration	3	CSC 251
___ ___	General Education Humanities Elective (GE HUM)	3	
___ ___	Technical Elective *Choose Technical Elective listed on previous page in Semester III*	3	

Total Credits: 61-66

COMPUTER PROGRAMMING CERTIFICATE - CSC.CER

Courses		Credits	Requisites/Comments
CSC 106	Intermediate PC Applications with Programming	3	BUS 107 or CSC 105 or CSC 107 or MCT 101 or one year of high school computer applications or a programming course and MAT 014 or appropriate score on the college's placement test.
CSC 110	Microcomputer Operating Systems and Architecture	3	CSC 105 or CSC 106 or BUS 107
CSC 133	Introduction to Computer Science using C++	4	MAT 014 or appropriate score on college's placement test.
CSC 134	Object Oriented Programming using C++	4	CSC 133 and MAT 116 or MAT 129 or MAT 129A
CSC 235	Data Structures	4	CSC 134 and MAT 116 or MAT 129 or MAT 129B
___ ___	*Recommended Computer Science Elective:*	3-4	All students should consult a computer science advisor.
	CSC 116 Introduction to Information Systems Security	3	CSC 105 or CSC 106 or BUS 107
	CSC 211 Programming in JAVA	4	CSC 134 or CSC 162
	CSC 241 Web Programming	4	CSC 134 or CSC 162
	CSC 261 Information Technology Management	3	CSC 133 or CSC 161 and CSC 200 and ENG 121
	The following courses cannot be taken as electives: CSC 105, CSC 107, CSC 108, CSC 109, CSC 115, CSC 117, CSC 165, BUS 107		
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
MAT 116	College Algebra	3	MAT 014 or MAT 014A and MAT 014B
OR			
MAT 129	Precalculus	4	Appropriate score on the college's placement test and/or satisfactory score on the diagnostic examination, "B" or better in MAT 014 or departmental approval.
OR			
MAT 129A	Precalculus (Part A)	2	Appropriate score on the college's placement test and/or satisfactory score on the diagnostic examination, "C" or better in MAT 014 or MAT 014A and MAT 014B or departmental approval.
and			
MAT 129B	Precalculus (Part B)	2	MAT 129A or equivalent courses
OR			
MAT 123	Statistics	3	MAT 014, MAT 014A/MAT 014B or satisfactory score on the college's placement test.
OR			
MAT 131	Analytic Geometry and Calculus I	4	MAT 129 or MAT 129A/MAT 129B or appropriate score on the college's placement test and/or satisfactory score on the diagnostic examination, or departmental approval.
OR			
MAT 131A	Analytic Geometry and Calculus I (Part A)	2	MAT 129 or MAT 129A/MAT 129B or appropriate score on the college's placement test and/or satisfactory score on the diagnostic examination, or departmental approval.
and			
MAT 131B	Analytic Geometry and Calculus I (Part B)	2	MAT 131A

Total Credits: 33-36

NETWORK ADMINISTRATION CERTIFICATE - CSNN.CER

Courses		Credits	Requisites/Comments
CSC 106	Intermediate PC Applications with Programming	3	BUS 107 or CSC 105 or CSC 107 or MCT 101 or one year of high school computer applications or a programming course and MAT 014 or appropriate score on the college's placement test.
CSC 110	Microcomputer Operating Systems and Architecture	3	CSC 105 or CSC 106 or BUS 107
CSC 116	Introduction to Information System Security	3	CSC 105 or CSC 106 or BUS 107
CSC 126	Help Desk Customer Service	3	ENG 121, CSC 105 or CSC 106 or BUS 107
CSC 160	Introduction to Unix	3	MAT 014 or higher and CSC 133 or CSC 161 or permission of the chairperson
CSC 200	Networking Technologies	3	CSC 110
CSC 251	Windows Workstation Administration	3	CSC 200
CSC 252	Windows Server Administration	3	CSC 251
___ ___	Technical Electives	3-4	
___ ___	*Recommended Computer Science Elective:*	3-4	All students should consult a computer science advisor.
	CSC 125 Web Markup Languages	3	CSC 133 or CSC 161 and MAT 014
	CSC 127 Help Desk Operation	3	CSC 126
	CSC 133 Introduction to Computer Science Using C++	4	Prerequisite(s): MAT 014 or appropriate score on college's placement test. Corequisite(s): MAT 116 or MAT 129 or MAT 129A
	CSC 161 Introduction to Computer Science Using JAVA	4	MAT 014 or appropriate score on college placement test. Corequisite(s): MAT 129 or MAT 129A or higher
	CSC 208 Visual BASIC Programming	4	CSC 106 or CSC 133 or CSC 161
	The following courses cannot be taken as electives: CSC 105, CSC 107, CSC 108, CSC 109, CSC 165, BUS 107		
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
MAT 116	College Algebra	3	MAT 014 or MAT 014A and MAT 014B
OR			
MAT 129	Precalculus	4	Appropriate score on the college's placement test and/or satisfactory score on the diagnostic examination, "B" or better in MAT 014 or departmental approval.
OR			
MAT 129A	Precalculus (Part A)	2	Appropriate score on the college's placement test and/or satisfactory score on the diagnostic examination, "C" or better in MAT 014 or MAT 014A and MAT 014B, or departmental approval.
and			
MAT 129B	Precalculus (Part B)	2	MAT 129A or equivalent courses

Total Credits: 36-38

COMPUTER HELP DESK ADMINISTRATION
CERTIFICATE OF ACHIEVEMENT - CSH.COA

Courses		Credits	Requisites/Comments
CSC 108	Introduction to Internet Applications	2	Prerequisites recommended: Prior completion of one of the following courses: CSC 105 or CSC 106 or CSC 107 or BUS 107 or equivalent microcomputer experience.
CSC 110	Microcomputer Operating Systems and Architecture	3	CSC 105 or CSC 106 or BUS 107
CSC 116	Introduction to Information Systems Security	3	CSC 105 or CSC 106 or BUS 107
CSC 200	Networking Technologies	3	CSC 110
CSC 126	Help Desk Customer Service	3	ENG 121, CSC 105 or CSC 106 or BUS 107
CSC 127	Help Desk Operation	3	CSC 126
SPE 121	Fundamentals of Public Speaking	3	
	Total Credits:	***20***	

Certificate Prerequisites

- CSC 105 - Computer Applications and Systems or CSC 106 - Intermediate PC Applications with Programming or BUS 107 - Computer Applications for Business
- ENG 121 - English Composition I

Contact Name: Professor Frank Burke
Contact Phone: 732.906.2526
Contact Email: **FBurke@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/departments/csc**

Computer Science Transfer Degree

COMPUTER SCIENCE DEPARTMENT

DIVISION OF BUSINESS, COMPUTER SCIENCE AND ENGINEERING TECHNOLOGIES (BCSET)

Associate in Science (A.S.) Degree

The Computer Science Transfer program leads to the Associate of Science degree and prepares students to transfer to public and private four-year colleges and universities in computer science. Students study topics in computer science such as problem-solving, object-oriented programming using Java, and computer architecture. Calculus, natural science, social science, and humanities are also studied. In the past, many of our students have successfully transferred to the New Jersey Institute of Technology, Rutgers University and other public and private colleges and universities.

What will students learn if they study Science Transfer?

They concentrate on the theoretical and applied sciences, and mathematics. These studies prepare students to meet the challenges of advanced study in professional careers.

Are there any requirements that must be satisfied before taking courses in my major?

Algebra I is a prerequisite for all majors. Algebra II competency may be verified with a passing score on the college's placement test. Students must also have a grade of "C" or better in high school algebra II, geometry, laboratory chemistry and one additional year of laboratory science.

Can Computer Science majors transfer to four-year colleges and universities?

The Statewide Transfer Agreement for New Jersey ensures that students who earn an A.A. or A.S. degree at a community college will have those credits fully transferable to a New Jersey public four-year institution, will have completed half of the credits required for a basic four-year degree and will have completed all of the lower division general education requirements. In addition, articulation agreements with private institutions may provide similar transfer provisions. Students should discuss the transfer process with an advisor.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

Contact: Professor Frank Burke, department chair, at 732.906.2526 or **FBurke@middlesexcc.edu**.

COMPUTER SCIENCE TRANSFER

Associate in Science (A.S.) - CSC.AS

Below are required courses and recommended course groupings and sequences for program completion. Courses may have prerequisites and corequisite requirements. Check course descriptions for details.

Courses		Credits	Requisites / Comments
Semester I			
CSC 161	Introduction to Computer Science Using Java	4	MAT 014 or appropriate score on college's placement test.
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
MAT 131	Analytic Geometry and Calculus I	4	MAT 129, or MAT 129A/MAT 129B, or appropriate score on the college's placement test and/or satisfactory score on the diagnostic examination, or departmental approval.
OR			
MAT 131A	Analytic Geometry and Calculus I (Part A)	2	MAT 129, or MAT 129A/MAT 129B, or appropriate score on the college's placement test and/or satisfactory core on the diagnostic examination, or departmental approval.
and			
MAT 131B	Analytic Geometry and Calculus I (Part B)	2	MAT 131A
___ ___	General Education Science Elective (GE MST)	4	Students should take science courses designated as general education that are numbered 117 or higher and should take a two-course sequence in the same science.
___ ___	Physical/Health Education Elective	1-3	
Semester II			
CSC 162	Object Oriented Programming Using Java	4	CSC 161 and MAT 129 or MAT 129A
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
MAT 132	Analytic Geometry and Calculus II	4	MAT 131, MAT 131A/MAT 131B, or equivalent
___ ___	General Education Science Elective (GE MST)	4	Students should take science courses designated as general education that are numbered 117 or higher and should take a two-course sequence in the same science.
___ ___	General Education Humanities Elective (GE HUM)	3	
Semester III			
CSC 233	Computer Architecture and Assembly Language I	4	CSC 133 or CSC 161 or permission of chairperson
CSC 236	Data Structures in Java	4	CSC 162, MAT 129 or MAT 129B
MAT 206	Introduction to Discrete Math	4	MAT 132 or approval of department chairperson
___ ___	General Education Social Sciences Elective (GE SS)	3	
Semester IV			
CSC 234	Computer Architecture and Assembly Language II	4	CSC 233
MAT 210	Linear Algebra	4	MAT 132
___ ___	General Education Social Sciences Elective (GE SS)	3	
___ ___	General Education Humanities Elective (GE HUM)	3	
		Total Credits: 63-65	

Contact Name: Professor Frank Burke
Contact Phone: 732.906.2526
Contact Email: **FBurke@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/departments/csc**

Criminal Justice

HISTORY & SOCIAL SCIENCE BEHAVIOR DEPARTMENT

DIVISION OF BUSINESS, COMPUTER SCIENCE AND ENGINEERING TECHNOLOGIES (BCSET)

Associate in Science (A.S.) Degree

This program includes general and specialized education courses designed to prepare students for a bachelor's degree program or a job in criminal justice. The certificate prepares the student to secure employment in the fields of probation, parole and corrections.

What will students learn if they study Criminal Justice?

Students examine both the substantive and procedural aspects of criminal law. Particular attention will be given to the functions of the courts and special emphasis will be placed on major U.S. Supreme Court decisions. Students who choose the Correction Administration degree option or certificate will learn about relevant trends with regard to correctional institutions, as well as sentencing, judicial treatment and correctional management philosophies. With the Police Science degree option, students will learn police procedures, constitutional law and community policing.

Are there any requirements that must be satisfied taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the college's placement test or completion of the appropriate course. Students also need a grade of "C" or better in one year of high school laboratory science or in BIO 010 or CHM 010.

Can students transfer to a four-year college or university?

The Statewide Transfer Agreement for New Jersey ensures that students who earn an A.A. or A.S. degree at a community college will have those credits fully transferable to a New Jersey public four-year institution, will have completed half of the credits required for a basic four-year degree and will have completed all of the lower division general education requirements. In addition, articulation agreements with private institutions may provide similar transfer provisions. Students should discuss the transfer process with an advisor.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

Contact: the Department of History and Social Behavior at 732.906.2503.

CORRECTION ADMINISTRATION - OPTION

Associate in Science (A.S.) Degree - CJC.AS

Below are required courses and recommended course groupings and sequences for program completion. Courses may have prerequisites and corequisite requirements. Check course descriptions for details.

Courses		Credits	Requisites/Comments
Semester I			
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
CJU 123	Criminal Justice I	3	
SOC 121	Introduction to Sociology I	3	
POS 201	United States State and Local Government	3	
___ ___	General Education Social Sciences Elective (GE SS)	3	
Semester II			
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
CJU 124	Criminal Justice II	3	CJU 123
SOC 140	Introduction to Criminology	3	
POS 220	United States National Government	3	
PSY 123	Introduction to Psychology	3	
___ ___	General Education Humanities Elective (GE HUM)	3	
Semester III			
___ ___	General Education Mathematics (GE MST)	3-4	
OR			
	General Education Science (GE MST)	4	
___ ___	General Education Social Sciences Elective (GE SS)	3	
___ ___	Physical/Health Education Elective	1-3	
CSC 105	Computer Applications and Systems	3	
COR 201	Introduction to Correction Administration	3	Prerequisite(s) or Corequisite(s): CJU 123
PSY 222	Social Psychology	3	SOC 121 or PSY 123
Semester IV			
___ ___	General Education Mathematics (GE MST)	3-4	
OR			
	General Education Science (GE MST)	4	
___ ___	General Education Humanities Elective (GE HUM)	3	
COR 207	Correctional Institutions	3	Prerequisite(s) or Corequisite(s): CJU 123
SOC 225	Juvenile Delinquency	3	
OR			
POS 231	Constitutional Law	3	Prerequisite(s): POS 121 or POS 201 or POS 220
COR 280	Corrections Externship	3	Prerequisite(s) or Corequisite(s): COR 201 or COR 207
OR			
POL 204	Law Enforcement and Community	3	

Total Credits: 64-68

CORRECTION ADMINISTRATION CERTIFICATE - COR.CER

Courses		Credits	Requisites / Comments
CJU 123	Criminal Justice I	3	
CJU 124	Criminal Justice II	3	CJU 123
COR 201	Introduction to Correction Administration	3	Prerequisite(s) or Corequisite(s): CJU123
COR 207	Correctional Institutions	3	Prerequisite(s) or Corequisite(s): CJU 123
COR 280	Corrections Externship	3	
OR			
POL 204	Law Enforcement and Community	3	Prerequisite(s) or Corequisite(s): COR 201 or COR 207
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
POS 201	United States State and Local Government	3	
POS 220	United States National Government	3	
PSY 123	Introduction to Psychology	3	
SOC 121	Introduction to Sociology	3	
SOC 140	Introduction to Criminology	3	

Total Credits: 36

POLICE SCIENCE - OPTION

Associate in Science (A.S.) Degree - CJP.AS

Courses		Credits	Requisites / Comments
Semester I			
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
CJU 123	Criminal Justice I	3	
SOC 121	Introduction to Sociology	3	
POS 201	United States State and Local Government	3	
___ ___	General Education Social Sciences Elective (GE SS)	3	
Semester II			
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
CJU 124	Criminal Justice II	3	CJU 123
SOC 140	Introduction to Criminology	3	
POS 220	United States National Government	3	
PSY 123	Introduction to Psychology	3	
___ ___	General Education Humanities Elective (GE HUM)	3	
Semester III			
___ ___	General Education Mathematics[1] (GE MST)	3-4	
OR			
	General Education Mathematics[1] (GE MST) Lab Science	4	
___ ___	General Education Social Sciences Elective (GE SS)	3	
___ ___	Physical/Health Education Elective	1-3	
CSC 105	Computer Applications	3	
POL 202	Police Operations	3	
POL 204	Law Enforcement and Community	3	
Semester IV			
___ ___	General Education Mathematics[1] (GE MST)	3-4	
OR			
	General Education Science (GE MST)	4	
___ ___	General Education Humanities Elective (GE HUM)	3	
POL 201	Police Administration	3	
PSY 222	Social Psychology	3	SOC 121 or PSY 123
SOC 225	Juvenile Delinquency	3	
OR			
POS 231	Constitutional Law		POS 121 or POS 201 or POS 220

Total Credits: 63-67

[1] Students may fulfill the mathematics or laboratory science requirement by completing either two semesters of mathematics or two semesters of four credit laboratory science courses. For students who choose to take mathematics, MAT 123-MAT 124 are recommended. All mathematics and science courses require knowledge of Algebra I and some may require Algebra II. Students should discuss their choice with their academic advisor.

Contact Name: Department of History and Social Behavior
Contact Phone: 732.906.2503

Dental Hygiene

DENTAL AUXILIARIES EDUCATION DEPARTMENT

DIVISION OF SCIENCE, MATHEMATICS AND HEALTH TECHNOLOGIES (SCMHT)

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

The program in Dental Hygiene is accredited by the Commission on Dental Accreditation and has been granted the accreditation status of approval. Graduates of this program qualify to take the North East Regional and the National Board Examinations for licensure to practice.

Why major in Dental Hygiene?

The student can become a licensed professional who works under the supervision of a dentist and performs services that detect, prevent and treat diseases of the mouth. Services include performing oral examinations, oral cancer screenings, scaling, root planning, polishing, applying decay preventing agents, taking and processing dental X-rays, and providing patient education in preventive dentistry.

Can students who major in Dental Hygiene transfer to a four-year college or university?

Some colleges and universities such as Thomas Edison, Montclair State University, UMDNJ, and New Jersey City University will apply the courses the student has taken toward a bachelor's degree.

What will students learn by studying Dental Hygiene?

Students will study comprehensive didactic, laboratory and clinic courses in dental hygiene and the dental sciences presented by highly qualified dental hygienists and dentists. State-of-the-art equipment is used in the on-site dental hygiene clinic and laboratories. Students will have additional clinical experiences in local hospitals and public schools. Basic science and general education requirements complete the course of study.

Are there any special requirements that must be satisfied before taking courses in the major?

Dental hygiene students must have a "C" or better in high school laboratory biology and laboratory chemistry or the equivalent college course. Students who need development coursework must complete it before being considered for admission to the program. Algebra I is a prerequisite for all majors. Competency in algebra may be verified with a passing score on the college's placement test. When prospective students apply, they must take a pre-health aptitude test and score above the cutoff scores established by the college. The Dental Hygiene Program is open to New Jersey residents only. Proof of residency is required.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Are there any special requirements once the student is admitted to this major?

Students must meet the academic standards of progress to stay in the program. All DHY courses must be taken at Middlesex County College.

Questions?

Contact: Professor Hope Holbeck, department chair, at 732.906.2536.

DENTAL HYGIENE

Associate in Applied Science (A.A.S.) Degree - DHY.AAS

Below are required courses and recommended course groupings and sequences for program completion. Courses may have prerequisites and corequisite requirements. Check course descriptions for details.

Courses		Credits	Requisites / Comments
Semester I			
BIO 211	Principles of Microbiology	4	One year of high school laboratory biology or BIO 010 and one year of high school laboratory chemistry or CHM 010. Also appropriate score on the college's placement test or MAT 013.
DHY 102	Dental Radiology	2	Credit-by-examination available if the student is licensed to take radiographs in New Jersey.
DHY 105	Oral Anatomy and Histology	4	
DHY 107	Preventive Oral Health Services I	4	
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
Semester II			
BIO 111	Human Anatomy and Physiology I	4	One year of high school laboratory biology or BIO 010 and one year of high school laboratory chemistry or CHM 010 and appropriate score on the college's placement test or MAT 013.
DHY 108	Preventive Oral Health Services II	5	DHY 102, DHY 105, DHY 107 and current CPR certification.
DHY 111	Nutrition and Oral Health	2	DHY 102, DHY 105, DHY 107
DHY 204	Dental Materials	2	DHY 102, DHY 105, DHY 107
DHY 205	Periodontology	2	BIO 211, DHY 102, DHY 105, DHY 107
ENG 122 OR ENG 125	English Composition II / English Composition II: Writing About Literature	3	A grade of "C" or better in ENG 121
Summer I			
CHM 107	Principles of General, Organic & Biochemistry	4	One year of high school laboratory chemistry or CHM 010.
Semester III			
BIO 112	Human Anatomy and Physiology II	4	BIO 111
DHY 203	General and Oral Pathology	2	DHY 108, DHY 110, DHY 204, DHY 205
DHY 207	Dental Health Education	2	DHY 108, DHY 110, DHY 204, DHY 205
DHY 208	Pharmacology	2	Prerequisite(s): CHM 107 Corequisite(s): BIO 112, DHY 203, DHY 207, DHY 211, DHY 215
DHY 211	Preventive Oral Health Services III	5	DHY 108, DHY 110, DHY 204, DHY 205 and current CPR certification.
DHY 215	Advanced Periodontology	1	DHY 108, DHY 110, DHY 204, DHY 205
PSY 123	Introduction to Psychology	3	
Semester IV			
DHY 210	Public Health	2	DHY 203, DHY 207, DHY 211, DHY 215
DHY 212	Preventive Oral Health Services IV	5	DHY 203, DHY 207, DHY 211, DHY 215 and current CPR certification.
DHY 224	Dental Hygiene Seminar	1	Prerequisite(s): DHY 107, DHY 108, DHY 211 Corequisite(s): DHY 212
SOC 121	Introduction to Sociology	3	
___ ___	Physical/Health Education Elective	1-3	
___ ___	General Education Humanities Elective (GE HUM)	3	
		Total Credits: 73-75	

Standards of Progress

1. Must achieve a "C" grade or better in all dental hygiene courses.
2 Any student achieving a grade less than a "C" in dental hygiene courses will be dropped from the program.
3 For readmission to the first semester the student must be in good academic standing to reapply and be re-ranked.
4. May retake a dental hygiene course only once.
5. Must achieve a "C" grade or better in all science courses to satisfy degree requirements.
6. If a student earns a grade of less than "C" in any science course, the student must retake the course and achieve a grade of "C" or better.

DENTAL ASSISTING CERTIFICATE - DHY.CER

Below are required courses for program completion.

At Middlesex County College:

Courses		Credits	Requisites / Comments
BIO 111	Anatomy & Physiology I	4	One year of high school laboratory biology or BIO 010 and one year of high school laboratory chemistry or CHM 010 and appropriate score on the college's placement test.
ENG 121	English Composition I	3	
PSY 123	Introduction to Psychology	3	
		Total Credits:	***10 (Prior to professional course work)***

At the University of Medicine and Dentistry of New Jersey:

Courses		Credits
ADEC 1110	Dental Head & Neck Anatomy	3
ADEC 1250	Dental Materials	3
ADEC 1269	Dental Specialties	1
ADEC 1209	Intro to the Dental Profession	4
ADEC 1240	Medical Emergencies	1
DENA 1279	Clinical Dental Assisting	3
ADEC 1205	Dental Health Education I	1
ADEC 1219	Dental Radiology	3
DENA 1232	Dental Science	2
ADEC 2460	Practice Management	1
DENA 1309	Internship	1
	Total Credits:	***23 (Professional course work)***
	Total Program Credits:	***33***

The Dental Assisting Certificate is jointly awarded by Middlesex County College and the School for Health Related Programs (SHRP) of the University of Medicine and Dentistry of New Jersey (UMDNJ). A joint admissions committee will review the application for any MCC student who has successfully taken BIO 111, ENG 121 and PSY 123. The dental assisting portion of the program is held in the Allied Health Technology Building at Scotch Plains, NJ. This program begins in the spring and concludes in the fall semester of each year. After a student completes all designated courses, a joint audit committee (MCC/UMDNJ) verifies program completion, and a joint certificate is award by both institutions. Any further questions about the program can be directed to Carolyn Breen (**breen@umdnj.edu**), Chair of the UMDNJ Allied Dental Education Program (908.889.2477). Dr. Reginald Luke (**RLuke@middlesexcc.edu**), MCC dean of Science, Mathematics and Health Technologies (732.906.2533), serves as the MCC liaison to this program.

Contact Name: Professor Hope-Claire Holbeck
Contact Phone: 732.906.2536
Contact Email: **HHolbeck@middlesexcc.edu**
Department Web: **http://www.midlesexcc.edu/departments/dental**

Dietetic Technology

HOTEL, RESTAURANT AND INSTITUTION MANAGEMENT DEPARTMENT

DIVISION OF BUSINESS, COMPUTER SCIENCE AND ENGINEERING TECHNOLOGIES (BCSET)

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

This program prepares students for a career as a dietetic technician in a health care facility, school, day care center, correction facility, corporation or community health setting. The Dietetic Technology Program is currently granted accreditation by the Commission on Accreditation for Dietetics Education of the American Dietetic Association, 120 South Riverside Plaza, Chicago, IL 60606-6995, 312.899.5400. Graduates are eligible for active membership in the American Dietetic Association and to write the registration examination for dietetic technicians administered by the Commission on Dietetic Registration to become a Dietetic Technician Registered (DTR). Students are also eligible for membership in the Dietary Managers Association and to sit for the credentialing examination to become a Certified Dietary Manager (CDM).

What will students learn by studying Dietetic Technology?

They study the management of food service systems and how to function at the mid-management level in assessment, planning, implementation, and evaluation of the food service operations and nutrition care plans. They learn in the classroom and in clinical settings.

Can students who major in Dietetic Technology transfer to a four-year college or university?

Many four year colleges and universities will apply the courses taken towards a bachelor's degree in dietetics, foods and nutrition and hotel, restaurant management. The College has official articulation agreements with NYU, the College of St. Elizabeth, and Montclair State University.

Are there any requirements that must be satisfied before taking classes in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the college's placement test or completion of the appropriate course. Students also need a grade of "C" or higher in one year of high school laboratory science.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

Contact: Professor Mary-Pat Maciolek, department chair, at 732.906.2538.

DIETETIC TECHNOLOGY

Associate in Applied Science (A.A.S.) Degree -DIET.AAS

Below are required courses and recommended course groupings and sequences for program completion. Courses may have prerequisites and corequisite requirements. Check course descriptions for details.

Courses		Credits	Requisites/Comments
Semester I			
BIO 108	Essentials of Human Anatomy and Physiology	4	Appropriate score on the college's placement test or MAT 013 and one year high school laboratory biology or chemistry or BIO 010 or CHM 010.
DTC 101	Introduction to Dietetic Technology	1	**Note:** This course is only offered in the fall semester.
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
HRI 103	Principles of Food Selection and Preparation	3	
HRI 105	Basic Nutrition	3	Corequisite(s): BIO 108 **Note:** This course is only offered in the fall semester.
HRI 208	Foodservice Sanitation	3	
Semester II			
DTC 102	Tools and Techniques of the Nutrition Care Process	1	DTC 101, HRI 103 and HRI 105. Students must have earned a grade of "C" or better in all prerequisites. Corequisite(s): HRI 108 and HRI 210 **Note:** This course is only offered in the spring semester.
DTC 208	Supervised Field Experience: Nutrition Care	3	DTC 101 and HRI 105 both with a grade of "C" or better. Corequisite(s): DTC102, HRI 108 and HRI 210 **Note:** This course is only offered in the spring semester.
ENG 122 OR	English Composition II	3	A grade of "C" or better in ENG 121
ENG 125	English Composition II: Writing About Literature		
HRI 108	Quantity Food Production	3	HRI 103
HRI 210	Introduction to Medical Nutrition Therapy	3	HRI 105 with a grade of "C" or better. **Note:** This course is only offered in the spring semester.
SPE 121	Fundamentals of Public Speaking	3	
Semester III			
DTC 209	Supervised Field Experience: Foodservice Systems Management	4	DTC 208 and HRI 210 both with a grade of "C" or better. Corequisite(s): HRI 213 and HRI 203 **Note:** This course is only offered in the fall semester.
HRI 203	Banquet and Dining Room Management	4	HRI 108
HRI 213	Food Service Systems Management in Dietetics	3	**Note:** This course is only offered in the fall semester.
SOC 121	Introduction to Sociology	3	
PED ___	Physical Education Elective	1	
Semester IV			
DTC 210	Supervised Field Experience: Clinical, Community, Foodservice	4	DTC 209, HRI 213, and HRI 218 each with a grade of "C" or better. Corequisite(s): HRI 205 and DTC 220 **Note:** This course is only offered in the spring semester.
DTC 220	Seminar in Dietetic Technology	1	DTC 209, HRI 218 both with a grade of "C" or better. Corequisite(s): HRI 205 and DTC 210 **Note:** This course is only offered in the spring semester.
HRI 205	Food and Beverage Controls and Purchasing	3	HRI 103
HRI 218	Nutrition Throughout the Life Span	3	HRI 105 with a grade of "C" or better. **Note:** This course is only offered in the fall semester.
MAT 101	Freshman Mathematics	3	Appropriate score on the college's placement test and two years of high school mathematics, MAT 013, or MAT 013A/MAT 013B, or departmental approval. **Note:** Students who choose to transfer, in consultation with their academic advisor, should enroll in a mathematics course for which they have the appropriate academic background.
PSY 123	Introduction to Psychology	3	
		Total Credits: 65	

Contact Name: Professor Mary-Pat Maciolek
Contact Phone: 732.906.2538
Contact Email: **MMaciolek@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/academi/hri**

Education Practitioner

PSYCHOLOGY AND EDUCATION DEPARTMENT

DIVISION OF BUSINESS, COMPUTER SCIENCE AND ENGINEERING TECHNOLOGIES (BCSET)

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

Graduates may pursue either of two possibilities. First, some students major in Education Practitioner in order to custom tailor a plan of study at Middlesex County College for transfer to a four-year college or university. Second, some students want to take practical and applied courses that prepare them to work immediately after this degree. Indeed, some majors actually work in the field while completing degree requirements. People already employed in educational settings often receive salary or position upgrades when they complete this degree.

For student who desires to transfer as an Education major or to go to work immediately in an education-related setting, the Education Practitioner is the right choice. Students should tell their advisor which career path in education they wish to follow, so they can be directed to the proper elective choices. (**Note:** Some receiving institutions prefer an A.A. degree).

Can students find employment without completing their four-year degree?

Students are eligible for a substitute-teaching license after completion of their 60th credit. Many graduates have worked as paraprofessionals in a wide variety of educational settings (both public and private) as they continue their education at a four-year institution.

Whether students choose the transfer or the early employment track, this degree can help obtain a "Group Teacher Approval" for use in private child care centers. This approval may be obtained through the State of New Jersey Department of Human Services - Division of Youth and Family Services (DYFS). (**Note:** Advisor consultation is recommended. If the student selects applied courses for the approved electives rather than transfer-oriented courses, some of the applied courses may not be transferable).

What will students learn if they study Education Practitioner?

They will have a strong core of general education courses and practical experiences in teaching/learning field settings. Supervision is done by cooperating school personnel as well as by the college supervisor. Students may select to work in early childhood, special education, elementary education or high school level field placements.

Are there any requirements students must satisfy before taking courses in the major?

The student's performance on the college placement test determines placement in developmental courses. Consultation with the department chairperson about math and science choices is strongly recommended. Often, in addition to the education major, the student's desired future second major at the transfer institution allows the advisor or chairperson to assist him or her with selecting the appropriate math and science courses.

Many schools require a police background check along with fingerprinting of those who work in educational settings. Middlesex students must comply with the policies that are in effect at their field placement. Students will not be able to graduate or to complete their Education Field Placement requirement unless they comply. Obtaining the appropriate background check, before the field work course and as the placement site requires, is the student's responsibility.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Can students complete all requirements by enrolling in evening classes?

Almost all classes are offered at least one time each year during the evening sessions. Some courses are offered in one semester but not in the next. Students studying on a part-time basis should contact the department chairperson or an advisor to plan when they should take their courses.

Questions?

Contact: Dr. Steven Barnhart, department chair, at 732.906.2590 **SBarnhart@middlesexcc.edu**, or Academic Advising, at 732.906.2596 **Advisor@middlesexcc.edu**.

EDUCATION PRACTITIONER

Associate in Applied Science (A.A.S.) Degree - EDPR.AAS

Below are required courses and recommended course groupings and sequences for program completion. Courses may have prerequisites and corequisite requirements. Check course descriptions for additional details.

Students who desire to take any courses out of sequence are permitted to do so as long as they have completed the prerequisites (if any) for the desired courses.

Courses		Credits	Requisites / Comments
Semester I			
ENG 121	English Composition I	3	Passing score on the college's placement test or a grade of "C" or better in ENG 010.
PSY 123	Introduction to Psychology	3	
HED 150	Contemporary Health Issues	3	
SPE 121	Fundamentals of Public Speaking	3	
MAT ___	Mathematics Elective I	3-4	Appropriate score on the college's placement test to start any of the following Math sequences: MAT 101-MAT 102, MAT 129-MAT 131, MAT 131-MAT 132 or higher levels.
Semester II			
ENG 122 OR ENG 125	English Composition II OR English Composition II: Writing About Literature	3	A grade of "C" or better in ENG 121
PSY 223	Child Psychology	3	PSY 123
HUM ___	General Education Humanities Elective (GE HUM)	3	Students are advised to pick a humanities elective based on upper division receiving institution's requirements. Often recommended: World Literature I or II (ENG 225 or ENG 226).
ART ___	Art Elective	3	Students are advised to pick an art elective based on upper division receiving institution's requirements. Often recommended: ART 105, ART 109, ART 145, ART 201, ART 123, ART 124.
MAT ___	Mathematics Elective II	3-4	Appropriate score on the college's placement test to finish any of the following Math sequences: MAT 101-MAT 102, MAT 129-MAT 131, MAT 131-MAT 132 or higher.
Semester III			
BIO ___	General Education Biology Elective	3-4	Choices are: BIO 103, or all 4 credit Biology courses with the GE MST designation. **Note:** Most 4 credit biology courses are best for transfer.
MUS 140	Music Fundamentals	3	Music 131 may be substituted on its acceptance by transfer institution and with chairperson's permission.
PSY 226	Educational Psychology: Classroom Applications	3	PSY 123 PSY 226 is a prerequisite for EDU 280, Education Field Experience.
SOC 121	Introduction to Sociology	3	
___ ___	Elective 1	3	Students are advised to pick an approved elective based on transfer institution's requirements. Often recommended: History course (Consult advisor).
Semester IV			
___ ___	Elective 2	3	Students are advised to pick an approved elective based on transfer institution's requirements. Often recommended: 4 credit lab science (Not usually a Biology course – Consider SCI 155 or SCI 220 or consult advisor for additional choices).
EDU 280	Education Field Experience	3	PSY 226 & PSY 122 or PSY 125 Students are required to work in an educational setting for 90 hours.
ENG 212	Children's Literature	3	ENG 121
___ ___	Elective 3	3	This elective is chosen with an advisor. Transfer institutions often require a course in the second major in a subject area (e. g.: English or history). The second major is different from the education major.
___ ___	Elective 4	3	See message in Elective 3
___ ___	Elective 5	3	See message in Elective 3

Total Credits: 63-66

Contact Name: Dr. Steven Barnhart
Contact Phone: 732.906.2590
Contact Email: **SBarnhart@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/departments/psyedu**

Electrical Engineering Technology

ENGINEERING TECHNOLOGIES DEPARTMENT

DIVISION OF BUSINESS, COMPUTER SCIENCE AND ENGINEERING TECHNOLOGIES (BCSET)

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

Electrical Engineering Technology graduates find employment opportunities in the design, manufacturing and maintenance of everything from nano-bots to supercomputers. Many industries employ electrical engineering technicians including bio-medical, robotics, controls, telecommunication, utilities, audio and consumer electronics, and manufacturing and service of every kind.

Can students who major in Electrical Engineering Technology Transfer to a four-year college or university?

Many four-year colleges and universities will apply many of the courses students have taken toward a bachelor's degree. The College also has a Joint Admissions agreement with The New Jersey Institute of Technology which will allow students, upon graduation from this program, to enter the B.S. in Electrical Engineering Technology program with junior standing.

What will students learn if they study Electrical Engineering Technology?

They develop skills and the understanding of the theory of electronics. Students develop skills in design, analysis, and the manufacture of electronic and computer equipment through courses that combine laboratory and classroom experience. The laboratories are equipped with modern industrial-grade equipment and provide for a great variety of applications of knowledge.

Are there any requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the college's placement test or completion of the appropriate course.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions. They can complete the certificate in three semesters.

Questions?

Contact: Assistant Professor Thom Sabol, department chair, at 732.906.2586.

ELECTRICAL ENGINEERING TECHNOLOGY

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

Below are required courses and recommended course groupings and sequences for program completion. Courses may have prerequisites and corequisite requirements. Check course descriptions for details.

Courses		Credits	Requisites / Comments
Fall			
MCT 101	Introduction to Technology	2	MAT 013 or passing score on the college's placement test. Corequisite(s): MAT 014
MAT 129A	Precalculus Part A	2	Appropriate score on the college's placement test and/or satisfactory score on the diagnostic examination, "C" or better in MAT 014 or MAT 014A and MAT 014B, or departmental approval. MAT 129 may be substituted for MAT 129A and MAT 129B.
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
ELT 105	Foundations of Electrical and Electronics Technology	4	MAT 013 or appropriate score on the college's placement test. Corequisite(s): MAT 014 or higher level
MEC 123	Technical Graphics/CAD I	3	
PED ___	Physical Education Elective	1	
Semester II			
MAT 129B	Precalculus Part B	2	MAT 129A or equivalent course
ENG 122 OR ENG 125	English Composition II English Composition II: Writing About Literature	3	A grade of "C" or better in ENG 121
ELT 110	Electrical/Electronic Devices and Circuits	4	ELT 105 or equivalent Corequisite(s): MAT 129A or MAT 129
ELT 111	Digital Electronics	3	MAT 013 or appropriate score on the college's placement test.
CSC 166	C++ Programming	3	CSC 133 may be substituted for CSC 166
___ ___	General Education Humanities Elective (GE HUM)	3	
Semester III			
MAT 131A	Analytic Geometry and Calculus Part A	2	MAT 129, or MAT 129A/MAT 129B, or appropriate score on the college's placement test and/or satisfactory score on the diagnostic examination, or departmental approval. MAT 131 can be substituted for MAT 131A and MAT 131B.
PHY 121	General Physics I	4	MAT 129 or MAT 129B
ELT 226	Microcomputers	3	ELT 111
ELT 210	Electronic Circuits and Systems	4	ELT 110
ELT 239	Digital/Data Communications and Networking	3	ELT 111
Semester IV			
MAT 131B	Analytic Geometry and Calculus I Part B	2	MAT 131A or equivalent
PHY 122	General Physics II	4	PHY 121
ELT 223	Electronic Design and Manufacturing	2	ELT 210, ELT 226
ELT 224	Communication Electronics	3	ELT 210
MCT 220	Robotics and Control Systems	3	ELT 105, MEC 123, MAT 129B or MAT 129 and PHY 121
___ ___	General Education Social Sciences Elective (GE SS)	3	
		Total Credits: 66	

ELECTRICAL ENGINEERING TECHNOLOGY CERTIFICATE - ELT.CER

Courses		Credits	Requisites/Comments
Semester I			
ELT 105	Foundations of Electrical and Electronics Technology	4	MAT 013 or appropriate score on the college's placement test. Corequisite(s): MAT 014 or higher level
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
MAT 129A	Precalculus Part A	2	Appropriate score on the college's placement test and/or satisfactory score on the diagnostic examination, "C" or better in MAT 014 or MAT 014A and MAT 014B, or departmental approval. MAT 129 may be substituted for MAT 129A and MAT 129B.
MCT 101	Introduction to Engineering Technology	2	MAT 013 or passing score on the college's placement test. Corequisite(s): MAT 014
MEC 123	Technical Graphics/CAD I	3	
Semester II			
ELT 110	Electrical/Electronic Devices and Circuits	4	ELT 105 or equivalent Corequisite(s): MAT 129A
ELT 210	Electronics Circuits and Systems	4	ELT 110
ELT 111	Digital Electronics	3	ELT 105 or equivalent Corequisite(s): MAT 129A
ELT 223	Electronic Design and Manufacturing	2	ELT 210, ELT 226
ELT 226	Microcomputers	3	ELT 111
MAT 129B	Precalculus Part B	2	MAT 129A or equivalent course
	Total Credits:	***32***	

Contact Name: Assistant Professor Thom Sabol
Contact Phone: 732.906.2586
Contact Email: **TSabol@middlesexcc.edu**

Energy Utility Technology

ENGINEERING TECHNOLOGIES DEPARTMENT

DIVISION OF BUSINESS, COMPUTER SCIENCE AND ENGINEERING TECHNOLOGIES (BCSET)

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

Public Service Electric & Gas (PSE&G) has teamed up with Middlesex County College to offer an associate's degree that can help students get started in a career in the electric and gas industry with PSE&G. Through a unique blend of coursework, specialized training, and hands-on work experience, students will acquire the knowledge and skill needed to be a technician in the energy utility industry. Completion of the two-year associate degree can lead to permanent employment opportunity with PSE&G if all company requirements are successfully met.

Can students who major in Energy Utility Technology transfer to a four-year college or university?

The major is job-oriented and designed for entrance to industry. However, students can transfer to Thomas Edison State College and earn a B.S. in Energy Utility Technology.

Are there any requirements that must be satisfied before taking courses in the major?

The program requires that applicants have a high school diploma or equivalent. All new students must take the college's placement test. Based on the results of the test, they may be required to take developmental courses in English and mathematics. Students must also have a valid New Jersey driver's license and pass a physical examination and drug screening.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

What skills will graduates have?

Upon completion of this program, graduates will be able to:

- Demonstrate an understanding of the energy industry, including the history of providing reliable service and regulatory influences;
- Read schematic electronics diagrams for purposes of testing and development;
- Diagnose combustion problems as they relate to the energy utility industry;
- Use basic electronics test and measurement instruments including multimeters and oscilloscopes to troubleshoot electronics devices;
- Perform piping on residential appliances and gas leak investigation;
- Install and test meters and demonstrate an understanding of electric utility distribution.

Questions?

Contact: Assistant Professor Thom Sabol, department chair, at 732.906.2586.

ENERGY UTILITY TECHNOLOGY

Associate in Applied Science (A.A.S.) Degree - EUT.AAS

Below are required courses and recommended course groupings and sequences for program completion.

Courses		Credits	Requisites/Comments
Semester I			
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
MAT 107	Mathematics I	3	Appropriate score on the college's placement test, MAT 013 or MAT 013A/MAT 013B or departmental approval. Students may substitute MAT 123-MAT 124 or MAT 129-MAT 131 for MAT 107-MAT 108.
ELT 105	Foundations of Electrical and Electronics Technology	4	MAT 013 or appropriate score on the college's placement test. Corequisite(s): MAT 014 or higher level
UTI 101	Introduction to the Energy Utility Industry	3	Prerequisite(s): MAT 013 Corequisite(s): ELT 105, MAT 107 Student must earn a "B" or better in UTI 101 to continue in the program.
Semester II			
ENG 122 OR	English Composition II	3	A grade of "C" or better in ENG 121
ENG 125	English Composition II: Writing About Literature		
UTI 102	Fundamentals of Gas Combustion	3	UTI 101 Students must earn a "C" or better in UTI 102 to continue in the program.
UTI 103	Fundamentals of Power Alternating Current	3	UTI 101, ELT 105, MAT 107 Students must earn a "C" or better in UTI 103 to continue in the program.
CSC 105	Computer Applications and Systems	3	
Summer I			
UTI 201	Energy Utility Co-op Work Experience I	3	400 hours of supervised work experience. Prerequisite(s): UTI 101, UTI 102, UTI 103 and one of the following occupational concentration courses: UTI 106, UTI 107, UTI 108, UTI 109.
UTI ___	Energy Utility Elective	4-5	Select from UTI 106, UTI 107, UTI 108, and UTI 109.
Semester III			
PHY 101	Principle of Physics	4	MAT 107 or equivalent
SPE 121	Fundamentals of Public Speaking	3	
ELT/MEC	Technical Elective	3-4	
	Choose from the following:		
	ELT 110 Electrical/Electronic Devices and Circuits	4	ELT 105 or equivalent Corequisite(s): MAT 129A or MAT 129
	ELT 111 Digital Electronics	3	MAT 013 or appropriate score on the college's placement test.
	MEC 123 Technical Graphics/Cad I	3	
PED ___	Physical Education Elective	1	
Semester IV			
BUS 240	Business Communications	3	
___ ___	General Education Humanities Elective (GE HUM)	3	
ELT/MEC	Technical Elective	3-4	
	Choose from the following:		
	ELT 110 Electrical/Electronic Devices and Circuits	4	ELT 105 or equivalent Corequisite(s): MAT 129A or MAT 129
	ELT 111 Digital Electronics	3	MAT 013 or appropriate score on the college's placement test.
	MEC 123 Technical Graphics/Cad I	3	
___ ___	General Education Social Sciences Elective (GE SS)	3	
Summer II			
UTI 202	Energy Utility Co-op Work Experience II	3	400 hours of supervised work experience. Prerequisite(s): UTI 201 and one of the following occupational concentration courses: UTI 106, UTI 107, UTI 108, and UTI 109.
UTI ___	Energy Utility Elective	4-5	Select from UTI 106, UTI 107, UTI 108, and UTI 109.

Total Credits: 62-65

Contact Name: Assistant Professor Thom Sabol
Contact Phone: 732.906.2586
Contact Email: **TSabol@middlesexcc.edu**

Engineering Science

ENGINEERING TECHNOLOGIES DEPARTMENT

DIVISION OF BUSINESS, COMPUTER SCIENCE AND ENGINEERING TECHNOLOGIES (BCSET)

Associate in Science (A.S.) Degree

Why major in Engineering Science?

Engineers are professionals with competency in mathematics and the physical and technical sciences. For students who enjoy solving problems and working with technical or scientific equipment, and do well in mathematics and science, engineering science is a good choice of major. The college has a transfer agreement with Rutgers College of Engineering and the New Jersey Institute of Technology. Articulation agreements with many other engineering colleges facilitate transfer with full credit.

What will students learn by studying Engineering Science?

They study theoretical and applied science, mathematics, and engineering subjects. They learn to apply mathematics and science to technical operations. Students have the opportunity to study in small groups in an environment with close faculty contact.

Are there any requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the college's placement test or completion of the appropriate course. Students also need a grade of "C" or better in high school algebra II, geometry, advanced algebra, trigonometry, laboratory chemistry and laboratory physics.

Can Engineering Science students transfer to a four-year college or university?

The Statewide Transfer Agreement for New Jersey ensures that students who earn an A.A. or A.S. degree at a community college will have those credits fully transferable to a New Jersey public four-year institution, will have completed half of the credits required for a basic four-year degree and will have completed all of the lower division general education requirements. In addition, articulation agreements with private institutions may provide similar transfer provisions. Students should discuss the transfer process with an advisor.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

Contact: Assistant Professor Thom Sabol, department chair, at 732.906.2586.

ENGINEERING SCIENCE

Associate in Science (A.S.) Degree - ES.AS

Below are required courses and recommended course groupings and sequences for program completion. Courses may have prerequisites and corequisite requirements. Check course descriptions for details.

Courses		Credits	Requisites/Comments
Semester I			
CHM 123	General Chemistry I	4	MAT 014 or appropriate score on the college's placement test and one year of high school chemistry.
CSC 133	Introduction to Computer Science Using C++	4	MAT 014 or appropriate score on the college's placement test. Corequisite(s): MAT 125 or MAT 129A MAT 129 can be substituted for MAT 129A & MAT 129B. CSC 133 is not a required course. Students who choose to transfer should consult with their academic advisor to select an appropriate computer science course that will satisfy the transfer institutes requirement.
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
MAT 131	Analytic Geometry and Calculus I	4	MAT 129, or MAT 129A/MAT 129B, or appropriate score on the college's placement test and/or satisfactory score on the diagnostic examination, or departmental approval.
MEC 119	Graphic Science	2	
___ ___	General Education Social Sciences (GE SS)	3	
Semester II			
CHM 124	General Chemistry II	4	CHM 123
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
MAT 132	Analytic Geometry and Calculus II	4	MAT 131, MAT 131B, or equivalent
PHY 131	Analytical Physics I	4	One year of high school laboratory physics. Corequisite(s): MAT 131 or equivalent
PED ___	Physical Education Elective	1	Students may take a health elective in place of physical education. However, if the total credits exceed 66 upon graduation they may not all transfer.
Semester III			
___ ___	Technical Elective	4	
MAT 233	Analytic Geometry and Calculus III	4	MAT 132 or equivalent
MEC 221	Engineering Mechanics I	3	MAT 131 or MAT 131B
PHY 132	Analytical Physics II	4	PHY 131 Corequisite(s): MAT 132 or equivalent
___ ___	General Education Humanities (GE HUM)	3	
Semester IV			
___ ___	Technical Elective	3-4	
MAT 234	Differential Equations	4	MAT 233 or approval of department chairperson of mathematics.
PHY 231	Analytical Physics III	4	PHY 132, MAT 132
___ ___	General Education Humanities (GE HUM)	3	
OR			
	General Education Social Sciences (GE SS)		

Total Credits: 64-65

TECHNICAL ELECTIVES

Courses		Credits	Requisites/Comments
CHEMICAL ENGINEERING			
CHM 223	Organic Chemistry I	4	CHM 124 or equivalent
CHM 224	Organic Chemistry II	4	CHM 223 or equivalent
CIVIL ENGINEERING			
ELT 221	Electric Circuits I	4	MAT 132 or equivalent
MEC 222	Engineering Mechanics II	3	MEC 221
ELECTRICAL ENGINEERING			
ELT 221	Electric Circuits I	4	MAT 132 or equivalent
ELT 222	Electric Circuits II	4	ELT 221
MECHANICAL ENGINEERING			
ELT 221	Electric Circuits I	4	MAT 132 or equivalent
MEC 222	Engineering Mechanics II	4	MEC 221

Total Credits: 64-65

Contact Name: Assistant Professor Thom Sabol
Contact Phone: 732.906.2586
Contact Email: **TSabol@middlesexcc.edu**

ESL/Languages and Culture Department

ENGLISH AS A SECOND LANGUAGE DEPARTMENT

DIVISION OF SCIENCE, MATHEMATICS AND HEALTH TECHNOLOGIES (SCMHT)

This program provides intensive language study for those whose native language is not English and are not yet proficient in English.

How is the English as a Second Language Program different from other ESL programs?

Students can study English full-time at the beginning, intermediate or advanced level. They study in class for 14 to 17 hours per week including ESL labs. They may also study in this program part time.

Can international students enroll in the ESL Program?

Yes. They may obtain an I-20 to study in this program and be admitted as a full-time student.

What is the application process for this program?

Students submit a completed application form with a $25 application fee to the Office of Admissions. They should make an appointment for the ESL Placement Exam by calling 732.906.2508 or visiting the Testing Center in JLC 229. After the exam, students make an appointment in the ESL/Languages and Cultures Department to attend an oral interview, which is part of the placement test. Students will be told what their placement is when they complete the oral interview.

What is the ESL Placement Exam?

It is a written test that takes approximately two hours to complete. The oral interview tests speaking and listening abilities. The written test measures grammar and writing abilities.

Who is required to take the test and can TOEFL scores be used for placement?

Anyone whose first language is not English. Students with a four-year degree and a TOEFL score of 550 or over may be exempt from the grammar and reading parts of the placement test, but they are still required to take the essay and oral interview tests.

When is the test administered and is there a charge?

Students may take the test Thursdays from 9 a.m. to 5 p.m. or at other times through a special appointment and approval by the director of the Testing Center. The test is free.

Can ESL students receive financial aid?

United States citizens and permanent residents may be eligible for financial aid but must declare a major.

Questions?

Contact: Dr. Virgil Blanco, department chair, at 732.906.2597.

ESL.UN - NON-DEGREE PROGRAM

Below are required courses and recommended course groupings and sequences for program completion. Courses may have prerequisites and corequisite requirements. Check course descriptions for details.

ESL LEVEL I - INTENSIVE

Courses		Credits	Requisites / Comments
ESL 060	Listening - Intensive Level I	3	Placement from ESL Test
ESL 061	Phonology - Intensive Level I	3	Placement from ESL Test
ESL 062	Discussion - Intensive Level I	3	Placement from ESL Test
ESL 063	Structure - Intensive Level I	4	Placement from ESL Test
ESL 064	Writing - Intensive Level I	4	Placement from ESL Test

Total Credits: 17

ESL LEVEL II - INTENSIVE

Courses		Credits	Requisites / Comments
ESL 071	Phonology - Intensive Level II	3	ESL 061 or permission of department chairperson Corequisite(s): ESL 072
ESL 072	Discussion/Cultural Orientation - Intensive Level II	3	ESL 062 or permission of department chairperson Corequisite(s): ESL 071
ESL 073	Structure - Intensive Level II	4	ESL 063 or permission of department chairperson Corequisite(s): ESL 071, ESL 072, ESL 074, ESL 075
ESL 074	Writing - Intensive Level II	4	ESL 064 or permission of department chairperson Corequisite(s): ESL 071, ELS 072, ESL 073, ESL 075
ESL 075	Reading/Vocabulary - Intensive Level II	3	ESL 063 Corequisite(s): ESL 071, ESL 072, ESL 073, ESL 074

Total Credits: 17

ESL LEVEL III - INTENSIVE

Courses		Credits	Requisites / Comments
ESL 083	Structure - Intensive Level III	4	ESL 073 or permission of department chairperson Corequisite(s): ESL 084, ESL 085, ESL 086
ESL 084	Writing - Intensive Level III	4	ESL 074 or permission of department chairperson Corequisite(s): ESL 083, ESL 085, ESL 086
ESL 085	Reading/Vocabulary - Intensive Level III	3	ESL 075 or permission of department chairperson Corequisite(s): ESL 083, ESL 084, ESL 086
ESL 086	Discussion/Phonology - Intensive Level III	3	ESL 071, ESL 072 or permission of department chairperson Corequisite(s): ESL 083, ESL 084, ESL 085

Total Credits: 14

Students may also take a mathematics course.

ESL LEVEL IV - INTENSIVE

Courses		Credits	Requisites / Comments
ESL 091	Advanced Discussion/Phonology Level IV	3	ESL 086 or permission of department chairperson Corequisite(s): ESL 092, ESL 093, ESL 094, ESL 099
ESL 092	Advanced Structure IV	3	ESL 083 or permission of department chairperson Corequisite(s): ESL 086, ESL 091, ESL 093, ESL 094, ESL 099
ESL 093	ESL Structure/Writing IV	4	ESL 084 or permission of department chairperson
ESL 094	ESL Reading/Vocabulary IV	4	ESL 085 or permission of department chairperson

Total Credits: 14

Students may also take a mathematics course or one major course.

ESL LEVEL V - INTENSIVE

Courses		Credits	Requisites / Comments
ESL 099	ESL Reading/Writing V	4	ESL 093 or permission of department chairperson

Total Credits: 4

Students may also take a mathematics course or two major courses.

Contact Name: Dr. Virgil Blanco
Contact Phone: 732.906.2597
Contact Email: **VBlanco@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/departments/esl**

Environmental Technology

CHEMISTRY/PHYSICS DEPARTMENT

DIVISION OF SCIENCE, MATHEMATICS AND HEALTH TECHNOLOGIES (SCMHT)

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

A degree in Environmental Technology allows students to prepare for employment as a water and wastewater technician, air pollution inspector, hazardous waste management technician, or occupational safety and health technician.

Can students who major in Environmental Technology transfer to a four-year college or university?

Articulation agreements with public and private institutions offer students who earn the A.A.S. degree the opportunity to transfer all of their coursework to the four-year institution. Students in specialized programs, or who earn an A.A.S. degree should discuss the transfer process with an advisor.

What do students learn by studying Environmental Technology?

They receive basic instruction in the physical, biological, and mathematical sciences, as well as in water and wastewater treatment, hazardous waste management, air pollution control and occupational safety and health.

Are there any requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency maybe verified with a passing score on the college's placement test. Students must also have a grade of "C" or better in one year of high school laboratory science.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

Contact: Dr. Diane Trainor, department chair, at 732.906.2587 or **DTrainor@middlesexcc.edu**.

ENVIRONMENTAL TECHNOLOGY

Associate in Applied Science (A.A.S.) Degree - ENV.AAS

Below are required courses and recommended course groupings and sequences for program completion.

Courses		Credits	Requisites / Comments
Semester I			
BIO 119	Biology I for Lab Technology I	4	Appropriate score on the college's placement test or MAT 013 and one year high school laboratory science or BIO 010 or CHM 010. Students may substitute BIO 123-BIO 124 for BIO 119-BIO 120 if they have completed a high school biology class.
CHM 117	Chemistry I	4	MAT 013 or appropriate score on college's placement test and one year of high school laboratory science, CHM 010 or departmental approval. Students may substitute CHM 123-CHM 124 for CHM 117-CHM 118 if they have completed a high school chemistry lab course.
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
MAT 107	Mathematics I	3	Appropriate score on the college's placement test, MAT 013 or MAT 013A/MAT 013B, or departmental approval. Students may substitute MAT 123-MAT 124 for MAT 129-MAT 131 if students have completed two or more years of high school algebra.
___ ___	Physical/Health Education Elective	1-3	
Semester II			
BIO 120	Biology II for Lab Technology II	4	BIO 119
CHM 118	Chemistry II	4	CHM 117
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
ENV 208	Environmental Health Hazards	3	
MAT 108	Mathematics II	3	MAT 107
Semester III			
ENV 205	Atmospheric Pollution Control	3	BIO 120, CHM 118, MAT 014 or equivalent
SCI 103	Safety and FDA Regulations for Lab Technicians	1	
ENV 220	Principles of Occupational Safety and Health	3	CHM 118 or equivalent
___ ___	Technical Elective (choose 1 – see below)	3-4	
___ ___	General Education Social Sciences Elective (GE SS)	3	
ENV 221	Hazardous Waste Management	3	
Semester IV			
ENV 222	Water and Wastewater Analysis	3	BIO 120, CHM 118, MAT 013
SCI 104	Technical Communications	1	Corequisite(s): ENG 121
CHM 203	Principles of Organic Chemistry Lecture only	3	CHM 118 or equivalent. Students may substitute CHM 223 for CHM 203 if they have completed CHM 124 or equivalent.
___ ___	General Education Humanities Elective (GE HUM)	3	
___ ___	Technical Elective (choose 1 – see below)	3-4	
___ ___	Technical Elective (choose 1 – see below)	3-4	

Total Credits: 64-69

TECHNICAL ELECTIVES CHOICES (Choose three)

Courses		Credits	Requisites / Comments
BIO 211	Principles of Microbiology	4	One year of high school laboratory biology or BIO 010 and one year of high school laboratory chemistry or CHM 010. Also appropriate score on the college's placement test or MAT 013.
BIO 221	Microbiology	4	BIO 120 or BIO 124; CHM 118 or CHM 124
CSC 105	Computer Applications and Systems	3	
ENV 201	Advanced Wastewater Operations I	3	CHM 010, MAT 013 or a recent course in basic water and wastewater operations approved by the Department of Environmental Protection of New Jersey.
ENV 202	Advanced Wastewater Operations II	3	CHM 010, MAT 013 or a recent course in basic water and wastewater operations approved by the Department of Environmental Protection of New Jersey.
ENV 203	Advanced Water Operations I	3	CHM 010, MAT 013 or a recent course in basic water and wastewater operations approved by the Department of Environmental Protection of New Jersey.
ENV 204	Advanced Water Operations II	3	CHM 010, MAT 013 or a recent course in basic water and wastewater operations approved by the Department of Environmental Protection of New Jersey.
ENV 223	Environmental Regulations	3	
ENV 226	Environmental Technology Cooperative Education	3	

ENVIRONMENTAL TECHNOLOGY CERTIFICATE - ENV.CER

Below are required courses and recommended course groupings and sequences for program completion.

Courses		Credits	Requisites/Comments
BIO 211	Microbiology	4	One year of high school laboratory biology or BIO 010 and one year of high school laboratory chemistry or CHM 010. Also appropriate score on the college's placement test or MAT 013.
CHM 117	Chemistry I	4	MAT 013 or appropriate score on college's placement test and one year of high school laboratory science, CHM 010 or departmental approval. Students may substitute CHM 123-CHM 124 for CHM 117-CHM 118 if they have completed a high school chemistry lab course.
CSC 105	Computer Applications and Systems	3	
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
ENV 208	Environmental Health Hazards	3	
MAT 107	Mathematics I	3	Appropriate score on the college's placement test, MAT 013 or MAT 013A/MAT 013B, or departmental approval. Students may substitute MAT 123-MAT 124 for MAT 129-MAT 131 if they have completed two or more years of high school algebra.
	Take one of the following sequences:		
ENV 201	Advanced Wastewater Operations I	3	CHM 010, MAT 013 or a recent course in basic water and wastewater operations approved by the Department of Environmental Protection of New Jersey.
and			
ENV 202	Advanced Wastewater Operations II	3	CHM 010, MAT 013 or a recent course in basic water and wastewater operations approved by the Department of Environmental Protection of New Jersey.
OR			
ENV 203	Advanced Water Operations I	3	CHM 010, MAT 013 or a recent course in basic water and wastewater operations approved by the Department of Environmental Protection of New Jersey
and			
ENV 204	Advanced Water Operations II	3	CHM 010, MAT 013 or a recent course in basic water and wastewater operations approved by the Department of Environmental Protection of New Jersey.
and			
ENV 226	Environmental Technology Cooperative Education	3	
		Total Credits: 32	

Contact Name: Dr. Diane Trainor
Contact Phone: 732.906.2587
Contact Email: **DTrainor@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/academi/chm**

Event Planning Management Certificate

BUSINESS ADMINISTRATION AND MANAGEMENT DEPARTMENT

DIVISION OF BUSINESS, COMPUTER SCIENCE AND ENGINEERING TECHNOLOGIES (BCSET)

Certificate

The Event Planning Management Certificate gives students the opportunity to join a firm or start their own event planning business in a rapidly growing field which is exciting and offers many opportunities for them to use their business and creative skills.

Can students who receive the Event Planning Management Certificate transfer to a four-year college or university?

A number of college and universities will apply the courses taken in the Event Planning Management Certificate.

What will students learn if they study Event Planning Management?

This program combines business, merchandising and marketing, communication skills and real life experience to help students gain the leadership and management skills needed to plan special events. With this certificate students will be able to develop their own event vision to create events, encompassing the development of an event budget, manage vendor contracts, be able to understand risk management in events, as well to have the communication skills necessary to present themselves and market their events.

Are there any requirements that must be satisfied before taking courses in the certificate?

Algebra I is a prerequisite for all majors. Students may satisfy this requirement with a grade of "C" or better in high school Algebra I. Algebra I competency may be verified with a passing score on the college's placement test.

How long will it take to complete this certificate?

Once students complete developmental coursework (if needed), they can be complete the certificate in one year. Major courses are only offered in the evening and not every semester.

Questions?

Contact: Professor Nancy Bailey, department chair, at 732.906.2594 or **bam@middlesexcc.edu**.

EVENT PLANNING MANAGEMENT CERTIFICATE - EPM.CER

Courses		Credits	Requisites/Comments
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
BUS 101	Business Organization and Management	3	
OR			
SBM 120	Small Business Management		
OR			
HRI 101	Introduction to Hotel, Restaurant, and Institution Management		
BUS 210	Introduction to Event Planning	3	Prerequisite(s): BUS 101, SBM 120, HRI 101
BUS 213	Law for Event Planning Management	3	
OR			
HRI 250	Law for Hospitality Operations		
BUS 239	Field Experience in Event Planning Management	3	
BUS 240	Business Communications	3	ENG 122 or ENG 125
BUS 250	Seminar in Event Planning Management	3	Prerequisite(s): BUS 210, BUS 213/HRI 250, BUS 239, BUS 240, HRI 206, SBM 110 or permission of department chairperson
HRI 206	Merchandising for the Hospitality Industry	3	Prerequisite(s): BUS 101, SBM 120, HRI 101
SPE 121	Fundamentals of Public Speaking	3	
SBM 110	Accounting for Small Business	4	

Total Credits: 34

NOTE: Not all major courses are offered every semester both day and evening. Please call the department chairperson at 732.906.2594 to discuss course offerings for future semesters.

Contact Name: Professor Nancy Bailey
Contact Phone: 732.906.2594
Contact Email: **bam@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/departments/bam**

Fashion Merchandising and Retail Management

BUSINESS ADMINISTRATION AND MANAGEMENT DEPARTMENT

DIVISION OF BUSINESS, COMPUTER SCIENCE AND ENGINEERING TECHNOLOGIES (BCSET)

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

Few areas of employment offer a better outlook for trained personnel. Students will find career opportunities in the areas of fashion merchandising, sales promotion, retail advertising, and supportive retail service. Graduates may find work in department stores, specialty shops, discount stores, as a retailing executive, an assistant buyer, an assistant department manager, an executive trainee, an advertising assistant, or an assistant fashion coordinator.

Can students who major in Fashion Merchandising and Retail Management transfer to a four-year college or university?

Articulation agreements with public and private institutions offer students who earn the A.A.S. degree the opportunity to transfer all of their coursework to the four-year institution. Students in specialized programs, or who earn an A.A.S. degree should discuss the transfer process with an advisor.

What will students learn by studying Fashion Merchandising and Retail Management?

They acquire knowledge in areas of general education, business, retailing and fashion. Students apply classroom theory to on-the-job situations through a cooperative education work experience or internships. Classes prepare them for actual situations in retailing through multimedia instruction and a fully equipped retail laboratory offers students realistic preparation.

Are there any requirements before taking courses in my major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the college's placement test or completion of the appropriate course.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Note: Not all FMR courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.

Questions?

Contact: Professor Nancy Bailey, department chair, at 732.906.2594 or **bam@middlesexcc.edu**.

FASHION MERCHANDISING AND RETAIL MANAGEMENT

Associate in Applied Science (A.A.S.) Degree -FMR.AAS

Below are required courses and recommended course groupings and sequences for program completion. Courses may have prerequisites and corequisite requirements. Check course descriptions for details.

Courses		Credits	Requisites/Comments
Semester I			
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
BUS 101	Business Organization and Management	3	
BUS 107	Computer Applications for Business	3	
FMR 201	Fashion Merchandise Information	4	Prerequisite(s)/Corequisite(s): BUS 101 **Note:** Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
MAT 101	General Education Mathematics Elective (GE MST)	3-4	MAT101 is recommended. Students with the appropriate academic prerequisites, in consultation with their academic advisor, should enroll in an (appropriate) mathematics course.
Semester II			
ENG 122 OR ENG 125	English Composition II English Composition II: Writing About Literature	3	A grade of "C" or better in ENG 121
ACC 101	Financial Accounting	4	
BUS 201	Business Law I	3	
MKT 201	Marketing I	3	BUS 101
FMR 207	Retail Advertising, Sales Promotion and Display	3	**Note:** Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
Semester III			
ACC 102	Managerial Accounting	4	ACC 101
MKT 143	Salesmanship	3	
FMR 202	Retail Buying and Merchandising	3	**Note:** Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
SPE 121	Fundamentals of Public Speaking (GE COM)	3	
___ ___	Physical/Health Education Elective	1-3	
Semester IV			
ECO 201	Principles of Economics I (GE SS)	3	A passing score on the algebra portion on the college's placement test or MAT 013.
FMR 204	Retail Management	3	BUS 101, FMR 201, FMR 202, FMR 207, MKT 143 AND MKT 201 Corequisite(s): FMR 206 **Note:** Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
FMR 206	Store Field Experience	3	Senior status or permission of department chairperson
___ ___ OR	General Education Social Sciences Elective (GE SS)	3	
___ ___	General Education Humanities Elective (GE HUM) General Education Science Elective (GE MST)	3-4	Students may select courses with the GE MST designation from the following sciences: BIO, CHM, PHY or SCI.

Total Credits: 61-65

Contact Name: Professor Nancy Bailey
Contact Phone: 732.906.2594
Contact Email: **bam@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/departments/bam**

Fine Arts

VISUAL, PERFORMING, AND MEDIA ARTS DEPARTMENT

DIVISION OF BUSINESS, COMPUTER SCIENCE AND ENGINEERING TECHNOLOGIES (BCSET)

Associate in Fine Arts (A.F.A.) Degree

The Associate in Fine Arts (A.F.A.) offers the first two years of concentrated study in studio courses for students planning to transfer to a fine arts program theatre option baccalaureate or music baccalaureate program. As fine arts major, the student may choose to concentrate in either the art or music.

What will students learn if they study Fine Arts?

Fine arts will provide a well-rounded education with a generous range of liberal arts courses required by baccalaureate fine arts programs. Specifically, students will complete a series of general education requirements upon which to build conceptual and communications skills that make up a large part of every fine arts career or professional program at the baccalaureate level. In addition, students create a body of work or enhance skills in a chosen field in ways that will assist them in being accepted into a competitive fine arts program at a four-year institution.

Are there any requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the college's placement test or completion of the appropriate course.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

Contact: Assistant Professor Nadine Heller, department chair, at 732.906.2589.

FINE ARTS

Associate in Fine Arts (A.F.A.) Degree

Below are required courses and recommended course groupings and sequences for program completion. Courses may have prerequisites and corequisite requirements. Check course descriptions for details.

Courses		Credits	Requisites/Comments
Semester I			
	Communications (9 Credits)		
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
SPE 121	Fundamentals of Public Speaking	3	
HIS 121	History of Western Civilization I	3	
HIS 122	History of Western Civilization II	3	
___ ___	General Education Social Sciences Elective (GE SS)	3	Choose three credits from courses designated in the course descriptions as GE SS from the following: African-American Studies, Anthropology, Economics, Political Science, Psychology and Sociology.
___ ___	**Humanities (GE HUM) (9 Credits)**	6	Choose six credits in sequence of the same modern language from FRE, GER, ITA, SPA. If students completed at least two years of high school study in one modern language, the level of language will be determined by a placement test (excluding SPA 242).
___ ___			
___ ___		3	Choose three additional credits in humanities from courses designated as GE HUM from the following: African-American Studies, Art, Dance, English, History, Modern Language, Music, Philosophy, Speech, and Theatre.
___ ___	Mathematics and/or Science (GE MST)	6-8	Choose any math and/or science courses with the GE MST designation numbered 101 or above that when combined total 6-8 credits.
___ ___	Diversity (GE DIV)	3	Choose a minimum of three credits from courses designated as GE DIV. If the course is also designated as GE HUM, GE SS, GE MST or it may also be used to satisfy an additional graduation requirement.
CSC 105	Computer Applications or Systems	3	
OR			
BUS 107	Computer Applications for Business		
___ ___	Physical/Health Education Elective	1-3	
___ ___	Elective	3	
	Total Credits: 60-63		

FINE ARTS DEGREE: ART OPTION - ART.AFA

Below are required courses.

Courses		Credits	Requisites/Comments
ART 109	Drawing	3	
OR			
ART 110	Figure Drawing		
ART 123	Art History	3	
ART 124	Art History: Renaissance to Modern	3	
ART 145	Art Fundamentals: Two Dimensions	3	
ART 146	Art Fundamentals: Three Dimensions	3	
ART 148	Art Portfolio	1	One or more three-credit studio art courses selected from the following: ART 105, ART 109, ART 110, ART 145, ART 146, ART 150, ART 201, ART 219, ART 220, ART 221, ART 222, ART 223, ART 224 or permission of department.
ART 149	Art Studio Seminar	1	One or more three-credit studio art courses selected from the following: ART 105, ART 109, ART 110, ART 145, ART 146, ART 150, ART 201, ART 219, ART 220, ART 221, ART 222, ART 223, ART 224 or permission of department.
	Plus one of the following (3 credits each):	3	
ART 221	Painting: Traditional		
ART 222	Painting: Contemporary		
ART 223	Sculpture Traditional		
ART 224	Sculpture Contemporary		
___ ___	*Plus one additional art course*	3	

Total Credits: 63-66

MUSIC DEGREE OPTION - MUS.AFA

(Also see Fine Arts Music Option.)

Below are required courses.

Courses		Credits	Requisites/Comments
MUS 123	Music History: Traditional	3	
OR			
MUS 124	Music History: Contemporary		
MUS 131	Keyboard Studies I	3	
MUS 132	Keyboard Studies II	3	MUS 131
MUS 140	Music Fundamentals	3	
MUS 201	Music Notation and Composition I	3	MUS 140 or passing score on music theory placement test.
MUS 202	Music Notation and Composition II	3	MUS 201
___ ___	*Plus additional music courses to total 3 credits*	3	

Total Credits: 61-64

THEATRE DEGREE OPTION - THE.AFA

(Also see Fine Arts Theatre Option)

Below are required courses.

Courses		Credits	Requisites/Comments
THE 123	Theatre History	3	
OR			
THE 152	American Musical Theatre		
THE 124	Contemporary Theatre	3	
THE 131	Acting I	3	
THE 145	Stagecraft	3	
THE 146	Play Production	3	
___ ___	*Plus additional three credits in theatre or a course selected from the following: Modern Drama, Shakespeare, Oral Interpretation of Literature, Music History, Music Fundamentals or any dance course*	3	

Total Credits: 18

Contact Name: Assistant Professor Nadine Heller
Contact Phone: 723.906.2589
Contact Email: **NHeller@middlesexcc.edu**

Fire Science Technology

CHEMISTRY/PHYSICS DEPARTMENT

DIVISION OF SCIENCE, MATHEMATICS AND HEALTH TECHNOLOGIES (SCMHT)

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

This program meets the continuing education needs of professional and volunteer firefighters. It enables firefighters to perform their current duties more effectively and to prepare for greater levels of responsibility within the fire service system.

Can students who major in Fire Science Technology transfer to a four-year college or university?

Articulation agreements with public and private institutions offer students who earn the A.A.S. degree the opportunity to transfer all of their coursework to the four-year institution. Students in specialized programs, or who earn an A.A.S. degree should discuss the transfer process with an advisor.

What will students learn in Fire Science Technology?

Students develop skills and knowledge in protection systems, hydraulics, hazardous materials, building construction and codes, departmental organization, investigation, fire ground strategy and tactics, and fire prevention and inspection.

Are there any requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the college's placement test or completion of the appropriate course. Students must also have a grade of "C" or better in one year of high school laboratory chemistry.

How long will it take to complete this degree?

This program is offered exclusively in the evening. Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

Contact: Dr. Diane Trainor, department chair, at 732.906.2587 or **DTrainor@middlesexcc.edu**.

FIRE SCIENCE

Associate in Applied Science (A.A.S.) Degree - FIRE.AAS

Courses		Credits	Requisites/Comments
Semester I			
FSC 103	Introduction to Fire Protection	3	
SCI 207	Principles of Chemistry & Physics for Fire Science	4	One year of high school laboratory chemistry or CHM 010.
ENG 121	English Composition I	3	A passing score on the college's placement test or a "C" or better in ENG 010.
MAT 107	Mathematics I	3	Appropriate score on the college placement test, MAT 013 or MAT 013A and MAT 013B, or departmental approval.
___ ___	Physical/Health Education Elective	1-3	
Semester II			
CSC 105	Computer Applications and Systems	3	CSC 105 or higher
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
MAT 108	Mathematics II	3	MAT 107 or equivalent With advisor approval students may select a higher level mathematics sequence.
FSC 204	Building Construction	3	FSC 103 or permission of department chair
___ ___	General Education Humanities Elective (GE HUM)	3	
Semester III			
FSC 206	Fire Strategy and Tactics	3	FSC 103 or permission of department chair
FSC 207	Hazardous Materials for the Fire Service	3	CHM 107, FSC 103 or permission of department chair
FSC 209	Fire Suppression and Detection Systems	3	FSC 103 or permission of department chair
POS 201	United States State and Local Government	3	
FSC 214	Rescue Company Operations	3	FSC 103
Semester IV			
FSC 210	Fire and Arson Investigation	3	FSC 103 or permission of department chair
FSC 212	Fire Prevention and Inspection	3	FSC 103 or permission of department chair
MGT 200	Principles of Supervision	3	MGT 200 is offered in the spring semester only
___ ___	General Education Humanities Elective (GE HUM)	3	
OR			
___ ___	General Education Social Sciences Elective (GE SS) Elective	3	Recommended EMT 101 or EMP 100

Total Credits: 59-61

FIRE SCIENCE CERTIFICATE - FIRE.CER

Courses		Credits	Requisites/Comments
CHM 107	Principles of Chemistry	4	One year of high school laboratory chemistry or CHM 010.
ENG 121	English Composition I	3	A passing score on the college's placement test or a "C" or better in ENG 010.
FSC 103	Introduction to Fire Protection	3	
FSC 204	Building Construction	3	FSC 103 or permission of department chair
FSC 206	Fire Strategy and Tactics	3	FSC 103 or permission of department chair
FSC 207	Hazardous Materials for the Fire Service	3	CHM 107, FSC 103 or permission of department chair
FSC 209	Fire Suppression and Detection Systems	3	FSC 103 or permission of department chair
FSC 210	Fire and Arson Investigation	3	FSC 103 or permission of department chair
FSC 212	Fire Prevention and Inspection	3	FSC 103 or permission of department chair
MAT 107	Mathematics I	3	Appropriate score on the college's placement test, MAT 013 or MAT 013A and MAT 013B, or departmental approval.

Total Credits: 31

Contact Name: Dr. Diane Trainor
Contact Phone: 732.906.2587
Contact Email: **DTrainor@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/academi/chm**

Graphics for Digital Media Certificate of Achievement

DEPARTMENT OF VISUAL, PERFORMING, AND MEDIA ARTS

DIVISION OF BUSINESS, COMPUTER SCIENCE AND ENGINEERING TECHNOLOGIES (BCSET)

Certificate of Achievement

This Certificate of Achievement is intended to enhance the current curriculum for students in the Media Arts & Design program and/or to broaden the skills of those individuals who have their field design experience outside of this particular area. The certificate is designed to provide students with skills and information relevant to current industry practices in the field of graphic design as related to the Internet. The market for graphic designers and photographers is shifting toward those individuals who are knowledgeable in digital and on-line based technologies.

Please note:

1. This certificate of achievement is designed for students who have already completed a degree in Media Arts and Design or those with previous field experience in photography and/or design.
2. Students must have completed BUS 107, or demonstrate the equivalent proficiency, prior to beginning this certificate.
3. It is recommended that eligible students take an advanced course in either Advertising Graphic Design or Professional Commercial Photography, especially PCP 224 (Computer Imagery.) In the case of a PCP course, the lab would be 3 hours and the resultant credit hours 3.

Questions?

Contact: Assistant Professor Nadine Heller, department chair, at 732.906.2589.

GRAPHICS FOR DIGITAL MEDIA CERTIFICATE OF ACHIEVEMENT - DMA.COA

Below are required courses and recommended course groupings and sequences for program completion.

Courses		Credits	Requisites/Comments
CSC 108	Introduction to the Internet	2	Prior completion of one of the following courses: CSC 105, CSC 107, or BUS 107 or equivalent microcomputer experience.
CSC 230	Multimedia Production and Authoring Tools	4	CSC 110 (Recommended: MAD 121) or relevant experience.
MAD 121	Graphics for Computer Authors and Presenters	3	Corequisite(s): BUS 107 or CSC 105 or MCT 101 or equivalent
DMA 210	Web Page Design and Layout	3	MAD 121 or relevant experience
DMA 212	Web Animation and Motion Graphics	3	MAD 121 or relevant experience
___ ___	Elective	3	

Total Credits: 18

Contact Name: Assistant Professor Nadine Heller
Contact Phone: 732.906.2589
Contact Email: **NHeller@middlesexcc.edu**
Department Web: **http//www.middlesexcc.edu/academi/mad**

Health Science

MEDICAL LABORATORY TECHNOLOGY DEPARTMENT

DIVISION OF SCIENCE, MATHEMATICS AND HEALTH TECHNOLOGIES (SCMHT)

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

This program is for any allied health practitioner who holds a certificate or license such as dental, medical and lab assistants, phlebotomists; ultrasound, surgical, and dental technicians; EMTs, paramedics, LPNs, RNs (diploma) and military trained allied health practitioners.

What are the benefits?

Credit for previous study in a specific discipline can be awarded. Students who are a non-degree certified or licensed allied health practitioner or graduate of a certificate or diploma program may be able to earn valuable credits toward a college degree.

What are the requirements for admission to the Health Science program?

Students in the Health Science program must have non-degree certification or licensure in an allied health field. Full- or part-time study is available.

Can students receive credit for previous Allied Health training?

After successful completion of the general education requirements with a GPA of 2.0 or higher, students must submit an original post-secondary school transcript and a current license or certificate as part of the process. The number of credits awarded will be based upon an evaluation of the candidate's prior training and licensure or certification. The director of Health Technology programs and the dean of Science, Mathematics and Health Technologies will conduct the review.

Can students who major in Health Science transfer to a four-year college?

Articulation agreements with public and private institutions offer students who earn the A.A.S. degree the opportunity to transfer all of their coursework to the four-year institution. Students in specialized programs, or who earn an A.A.S. degree should discuss the transfer process with an advisor.

What are the employment opportunities for graduates?

Graduates of Health Science programs have chosen to work in hospital laboratories, private or reference laboratories, pharmaceutical companies, the insurance industry, doctor's offices, HMO's and clinics, veterinarian hospitals, assisted living facilities, long-term care facilities, research and sales. Graduates may use this degree for career advancement or change, to enhance job security, or to satisfy personal fulfillment.

Questions?

Contact: Professor Stephen Larkin, department chair, at 732.906.2581.

HEALTH SCIENCE

Associate in Applied Science (A.A.S.) Degree - HLTH.AAS

Below are the General Education requirements for program completion.
Courses may have prerequisites and corequisite requirements. Check course descriptions for details.

Allied Health Requirement: (previously completed) 30 (Maximum)
Students may receive up to 30 credits for previous allied health training.
The determination will be made based upon an evaluation of the total hours of training and the level of training and responsibility.

Electives: 24 (Maximum)
The number of electives will depend on the number of credits approved from previous training.
The student will select electives from a list of courses based on individual goals.
The electives may be taken from Small Business Administration, Psychology, or other courses as approved by the department.
A list of choices can be provided.

Courses		Credits	Requisites / Comments
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
PSY 123	Introduction to Psychology	3	
PE ___	Physical Education Elective	1	
OR			
HED 150	Contemporary Health Issues	3	
___ ___	General Education Humanities Elective (GE HUM)	3	
SPE 121	Fundamentals of Public Speaking	3	
OR			
SPE 123	Discussion and Debate		
___ ___	General Education Credits	16-18	
CSC 107	Computers in Health Technologies	1	
___ ___	Laboratory Science	8	One year sequence of lab science requirements satisfied by Biology (BIO 117 & BIO 118 or higher) or Anatomy & Physiology (BIO 111 & BIO 112) or Chemistry (CHM 117 & CHM 118 or higher).
BIO 211	Principles of Microbiology	4	
___ ___	Mathematics	6	Mathematics I (MAT 107) & Mathematics II (MAT 108) or higher.

Total Credits: 65-67

Contact Name: Professor Stephen Larkin
Contact Phone: 732.906.2581
Contact Email: **SLarkin@middlesexcc.edu**

Hotel, Restaurant and Institution Management

HOTEL, RESTAURANT AND INSTITUTION MANAGEMENT DEPARTMENT

DIVISION OF BUSINESS, COMPUTER SCIENCE AND ENGINEERING TECHNOLOGIES (BCSET)

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

In this program, students acquire the necessary practical and theoretical skills for employment in one of the nation's fastest growing industries. Graduates may be employed as an assistant restaurant manager, hotel/motel assistant manager, front office manager, dining room manager, cafeteria production manager, cook, sous chef or management trainee. They are eligible for certification in several course areas by the American Hotel and Lodging Association and the National Restaurant Association. Students may choose the Hotel-Motel Management Option, the Restaurant Foodservice Management Option, or the Culinary Arts Management Option which prepares students to work in hotels, motels, resorts, restaurants, clubs, cruise ships, catering centers and health care facilities.

Can students who major in Hotel, Restaurant and Institution Management transfer to a four-year college?

Articulation agreements with public and private institutions offer students who earn the A.A.S. degree the opportunity to transfer all of their coursework to the four-year institution. Students in specialized programs, or who earn an A.A.S. degree should discuss the transfer process with an advisor. Many colleges and universities with hotel and restaurant management programs, including Fairleigh Dickinson University, NYU, Montclair State University, Widener University, as well as other schools, will apply the courses taken toward a bachelor's degree.

What do students learn if they study Hotel, Restaurant and Institution Management?

They receive training in restaurant and food service management, hotel-motel management or culinary arts. Those with limited related industry experience are encouraged to enroll in a cooperative work experience seminar that includes paid employment in the final semester. In culinary arts additional training is provided in a culinary externship.

Can students take more than one option in Hotel, Restaurant and Institution Management?

Students with interests in both hotel-motel management and restaurant foodservice management can apply for a dual option.

Are there any requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the college's placement test or by completion of the appropriate course.

How long will it take to complete these programs?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions. Certificates may be completed in approximately 14 months and the certificate of achievement in 1-2 semesters.

Can students who take the Culinary Certificate Program also work toward the A.A.S. degree?

Yes. All of the culinary courses in the certificate program may be applied to meet the requirements for the A.A.S. degree in the Restaurant/Foodservice option.

Why should students apply for a Certificate?

The Certificate of Achievement was designed for those individuals who have completed a degree in another discipline and are currently working in the hospitality field. The Certificates of Achievement were also designed for individuals who do not have a post-secondary education and are interested in the hospitality field or who have several years of experience in the field and need to acquire academic credentials for promotional opportunities.

Questions?

Contact: Professor Mary-Pat Maciolek, department chair, at 732.906.2538.

CULINARY ARTS MANAGEMENT DEGREE OPTION

Associate in Applied Science (A.A.S.) Degree - HRIC.AAS

Below are required courses and recommended course groupings and sequences for program completion.

Courses		Credits	Requisites/Comments
Semester I			
BUS 107	Computer Applications for Business	3	
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
HRI 103	Principles of Food Selection and Preparation	3	
HRI 208	Foodservice Sanitation	3	
MAT 101	Freshman Mathematics I	3	Passing score on the college's placement test, two years of high school mathematics or MAT 013 or permission of department chairperson.
Semester II			
ENG 122 OR	English Composition II	3	A grade of "C" or better in ENG 121
ENG 125	English Composition II: Writing About Literature		
HRI 108	Quantity Food Production	3	HRI 103
HRI 109	Professional Culinary Techniques	3	HRI 103 **Note:** This course is only offered in the spring semester.
HRI 115	Foodservice Operations	3	**Note:** This course is only offered in the spring semester.
PSY 123	Introduction to Psychology	3	
Semester III			
HRI 107	Baking Fundamentals	3	
HRI 203	Banquet and Dining Room Management	4	HRI 108 **Note:** This course is only offered during the day.
HRI 215	Beverage Management	3	**Note:** This course is only offered in the fall semester.
___ ___	General Education Humanities Elective (GE HUM)	3	
___ ___	General Education Social Sciences Elective (GE SS)	3	
Semester IV			
HRI 114	Garde Manager	3	HRI 103 **Note:** This course is only offered in the spring semester.
HRI 205	Food and Beverage Controls and Purchasing	3	HRI 103
HRI ___	HRI Elective	3	Students can choose from HRI 105, HRI 110, HRI 201, HRI 202, HRI 206, HRI 213, HRI 216, HRI 217, HRI 220 and HRI 250.
___ ___	General Education Science Elective (GE MST)	3-4	Students must select courses with the GE MST designation from the BIO, CHM, PHY and SCI course codes.
___ ___	Physical/Health Education Elective	1-3	
Summer Session			
HRI 111	Culinary Arts Externship	3	HRI 103 Admission to the Culinary Arts Program. **Note:** This course is only offered in the summer session.

Total Credits: 62-65

CULINARY ARTS CERTIFICATE - CULIN.CER

Below are required courses and recommended course groupings and sequences for program completion.

Courses		Credits	Requisites/Comments
Semester I			
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
___ ___	General Education Elective (GE HUM, GE MST, or GE SS)	3	
HRI 103	Principles of Food Selection and Preparation	3	
HRI 107	Baking Fundamentals	3	
HRI 108	Quantity Food Production	3	HRI 103
HRI 111	Culinary Arts Externship	3	HRI 103 Admission to the Culinary Arts Program. **Note:** This course is only offered in the summer.
HRI 114	Garde Manager	3	HRI 103 **Note:** This course is only offered in the spring semester.
HRI 115	Foodservice Operations	3	**Note:** This course is only offered in the spring semester.
HRI 203	Banquet and Dining Room Management	4	HRI 108 **Note:** This course is only offered during the day.
HRI 205	Food and Beverage Controls and Purchasing	3	HRI 103
HRI 208	Foodservice Sanitation	3	
		Total Credits: 34	

HOTEL-MOTEL MANAGEMENT DEGREE - OPTION

Associate in Applied Science (A.A.S.) Degree - HRIH.AAS

Below are required courses and recommended course groupings and sequences for program completion.

Courses		Credits	Requisites/Comments
Semester I			
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
HRI 101	Introduction to Hotel, Restaurant and Institution Management	3	
HRI 103	Principles of Food Selection and Preparation	3	
HRI 208	Foodservice Sanitation	3	
MAT 101	Freshman Mathematics I	3	Passing score on the college's placement test, two years of high school mathematics or MAT 013 or permission of department chairperson.
___ ___	Physical/Health Education Elective	1-3	
Semester II			
ACC 108	Accounting Practices for Hotels, Restaurants and Institutions	4	**Note:** This course is only offered in the spring semester.
BUS 107	Computer Applications for Business	3	
ENG 122 OR ENG 125	English Composition II English Composition II: Writing About Literature	3	A grade of "C" or better in ENG 121
HRI 108	Quantity Food Production	3	HRI 103
HRI 110	Supervisory Development in the Lodging and Foodservice Industry	3	**Note:** This course is only offered in the spring semester.
Semester III			
HRI 201	Hotel-Motel Front Office Operations	3	BUS 107 **Note:** This course is only offered in the fall semester.
HRI 206	Merchandising for the Hospitality Industry	3	**Note:** This course is only offered in the fall semester.
HRI 217	Supervisory Housekeeping	3	**Note:** This course is only offered in the fall semester.
PSY 123	Introduction to Psychology	3	
___ ___	General Education Humanities (GE HUM)	3	
Semester IV			
HRI 203	Banquet and Dining Room Management	4	HRI 108 **Note:** This course is only offered during the day.
HRI 216	Hospitality Property Management	3	**Note:** This course is only offered in the spring semester.
HRI ___	HRI Elective	3	Students can choose from HRI 105, HRI 115, HRI 202, HRI 204, HRI 205, HRI 213, HRI 215, HRI 220 and HRI 250.
___ ___	General Education Science Elective (GE MST)	3	Students must select courses with the GE MST designation and with BIO, CHM, PHY and SCI course codes.
___ ___	General Education Social Sciences Elective (GE SS)	3	
		Total Credits: 63-66	

HOTEL OPERATIONS CERTIFICATE OF ACHIEVEMENT - HMHO.COA

Below are required courses and recommended course groupings and sequences for program completion.

Courses		Credits	Requisites/Comments
BUS 107	Computer Applications for Business	3	
HRI 110	Supervisory Development in the Lodging and Foodservice Industry	3	**Note:** This course is only offered in the spring semester.
HRI 201	Hotel-Motel Front Office Operations	3	BUS 107 **Note:** This course is only offered in the fall semester.
HRI 206	Merchandising for the Hospitality Industry	3	**Note:** This course is only offered in the fall semester.
HRI 216	Hospitality Property Management	3	**Note:** This course is only offered in the spring semester.
HRI 217	Supervisory Housekeeping	3	**Note:** This course is only offered in the fall semester.

Total Credits: 18

RESTAURANT/FOODSERVICE MANAGEMENT - OPTION

Associate in Applied Science (A.A.S.) Degree - HRIR.AAS

Below are required courses and recommended course groupings and sequences for program completion.

Courses		Credits	Requisites/Comments
Semester I			
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
HRI 101	Introduction to Hotel, Restaurant and Institution Management	3	
HRI 103	Principles of Food Selection and Preparation	3	
HRI 208	Foodservice Sanitation	3	
MAT 101	Freshman Mathematics I	3	Passing score on the college's placement test, two years of high school mathematics or MAT 013 or permission of department chairperson.
___ ___	Physical/Health Education Elective	1-3	
Semester II			
ACC 108	Accounting Practices for Hotels, Restaurants and Institutions	4	**Note:** This course is only offered in the spring semester.
BUS 107	Computer Applications for Business	3	
ENG 122 OR	English Composition II	3	A grade of "C" or better in ENG 121
ENG 125	English Composition II: Writing About Literature		
HRI 108	Quantity Food Production	3	HRI 103
HRI 110	Supervisory Development in the Lodging and Foodservice Industry	3	**Note:** This course is only offered in the spring semester.
Semester III			
HRI 203	Banquet and Dining Room Management	4	HRI 108 **Note:** This course is only offered during the day.
HRI 206	Merchandising for the Hospitality Industry	3	**Note:** This course is only offered in the fall semester.
HRI 215	Beverage Management	3	**Note:** This course is only offered in the fall semester.
PSY 123	Introduction to Psychology	3	
___ ___	General Education Humanities (GE HUM)	3	
Semester IV			
HRI 202	Facilities Layout and Design	3	**Note:** This course is only offered in the spring semester.
HRI 205	Food and Beverage Cost Controls and Purchasing	3	HRI 103
HRI ___	HRI Elective	3	Students can choose from HRI 105, HRI 115, HRI 201, HRI 204, HRI 213, HRI 216, HRI 217, HRI 220 and HRI 250.
___ ___	General Education Science Elective (GE MST)	3-4	Students must select courses with the GE MST designation and with the BIO, CHM, PHY and SCI course codes.
___ ___	General Education Social Sciences Elective (GE SS)	3	

Total Credits: 63-66

RESTAURANT OPERATIONS CERTIFICATE OF ACHIEVEMENT - HMRO.COA

Below are required courses and recommended course groupings and sequences for program completion.

Courses		Credits	Requisites/Comments
BUS 107	Computer Applications for Business	3	
HRI 103	Principles of Food Selection and Preparation	3	
HRI 205	Food and Beverage Controls and Purchasing	3	HRI 103
HRI 206	Merchandising for the Hospitality Industry	3	**Note:** This course is only offered in the fall semester.
HRI 208	Foodservice Sanitation	3	
HRI 215	Beverage Management	3	**Note:** This course is only offered in the fall semester.

Total Credits: 18

BAKING AND PASTRY ARTS CERTIFICATE OF ACHIEVEMENT - BPA.COA

Courses		Credits	Requisites/Comments
HRI 107	Baking Fundamentals	3	
HRI 208	Food Service Sanitation	3	
HRI 116	Professional Pastry Techniques	3	HRI 107
HRI 118	Cakes, Decorating and Specialty Techniques	3	HRI 107
HRI ___	HRI Elective	3	HRI 115, HRI 202, or HRI 206 is recommended
HRI 120	Baking and Pastry Arts Externship	3	HRI 116 and HRI 118

Total Credits: 18

Contact Name: Professor Mary-Pat Maciolek
Contact Phone: 732.906.2538
Contact Email: **MMaciolek@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/academi/hri**

Java and Web Programming Certificate of Achievement

COMPUTER SCIENCE DEPARTMENT

DIVISION OF BUSINESS, COMPUTER SCIENCE AND ENGINEERING TECHNOLOGIES (BCSET)

Certificate of Achievement

Why complete the certificate of achievement in Java & Web Programming?

This certificate of achievement provides students with an awareness of the internet and the world wide web. Publishing text, pictures, sound, and even video over the internet is becoming easier every day. Individuals who run small businesses with services to sell, and people with stories to share will acquire the necessary skills to publish useful, attractive, and quality web pages. Upon completion of this certificate program, students will be able to create web sites and useful web pages.

Are there any requirements that must be satisfied before students can take courses in the major?

The certificate of achievement is designed for those students with at least two years of college level education, including ENG 121 English Composition I. Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the college's placement test or completion of the appropriate course. Students must have completed BUS 107 or CSC 105 or CSC 107 or MCT 101 or demonstrated equivalent proficiency before beginning this certificate.

How long will it take to complete this certificate?

Once students complete developmental coursework (if needed), the certificate may be completed in 1-2 semesters. They can shorten the amount of time by taking courses in the summer and winter sessions.

Why take the certificate of achievement in Information Systems Security?

This certificate of achievement develops technical competence in Information Systems Security, an area that is critical to homeland security with rapidly expanding employment opportunities.

Questions?

Contact: Professor Frank Burke, department chair, at 732.906.2526 or **FBurke@middlesexcc.edu**.

JAVA AND WEB PROGRAMMING CERTIFICATE OF ACHIEVEMENT - CSWEB.COA

This Java and Web Programming Certificate of Achievement is designed for those students with at least two years of college education and knowledge of CSC 134 Object Oriented Programming using C++ or CSC 162 Object Oriented Programming using Java or permissions of the chairperson.

Courses		Credits	Requisites/Comments
CSC 125	Web Markup Languages	3	Prerequisite(s): CSC 133 or CSC 161 and MAT 014
CSC 245	Unix and Shell Programming	4	Prerequisite(s): CSC 133 or CSC 161
CSC 211	Programming in Java	4	Prerequisite(s): CSC 134 or CSC 162
CSC 239	Database System Concepts	3	Prerequisite(s): CSC 133 or CSC 161
CSC 241	Web Programming	4	Prerequisite(s): CSC 134 or CSC 162

Total Credits: 18

JAVA PROGRAMMING CERTIFICATE OF ACHIEVEMENT - CSJAVA.COA.

This Certificate of Achievement is designed for those students with at least two years of college education and who have completed courses equivalent to ENG 121 and MAT 129.

Successful completion of this certificate prepares students to take entry level jobs as Java programmers.

Courses		Credits	Requisites/Comments
CSC 161	Introduction to Computer Science in Java	4	MAT 014 or appropriate score on college's placement test. Corequisite(s): MAT 129 or MAT 129A or higher
CSC 162	Object Oriented Programming in Java	4	Prerequiste(s): CSC 161 and MAT 129 or MAT 129A or higher
CSC ___	200-Level Programming Elective	4	
	Approved Programming Elective List (4 credits each):		
	CSC 211 Programming in Java		Prerequisite(s): CSC 134 or 162
	CSC 236 Data Structures in Java		Prerequisite(s): CSC 162 and MAT 129 or MAT 129B or written permission of the Department
	CSC 241 Web Programming		Prerequisite(s): CSC 134 or 162
CSC 245	UNIX and Shell Programming	4	CSC 133 or CSC 161

Total Credits: 16

INFORMATION SYSTEMS SECURITY CERTIFICATE OF ACHIEVEMENT - CSS.COA

The Information Systems Security Certificate of Achievement is designed for those students with at least two years of college level education who have completed courses equivalent to ENG 121 and MAT 014. Students must complete CSC 105, CSC 134 or CSC 162, and CSC 200 or demonstrate equivalent knowledge prior to beginning the program.

Successful completion of this certificate helps prepare students to take the certification test for Security.

Courses		Credits	Requisites/Comments
CSC 116	Introduction to Information Systems Security	3	CSC 105 or CSC 106 or BUS 107
CSC 239	Database Concepts	3	CSC 133 or CSC 161
CSC 245	UNIX and Shell Programming	4	CSC 133 or CSC 161
CSC 258	Computer Forensics	3	CSC 116 and CSC 245
___ ___	*System Administration Technical Elective (3 credits each)*:	3	All students should consult a Computer Science Advisor.
	CSC 246 UNIX and Web Server Administration		CSC 245
	CSC 251 Windows Workstation Administration		CSC 200
	CSC 252 Windows Server Administration		CSC 251
CSC 261	Information Technology Management	3	CSC 133 or CSC 161 and CSC 200 and ENG 121

Total Credits: 19

WINDOWS/PC SUPPORT CERTIFICATE OF ACHIEVEMENT - CSNT.COA

This Windows/PC Support Certificate of Achievement is designed for students who have completed courses equivalent to ENG121 and MAT 014. Students must complete CSC105 or demonstrate the equivalent proficiency prior to beginning this certificate program.

Successful completion of this certificate helps prepare students to take the certification tests for Microsoft Windows (MCP) and A+ Certification.

Courses		Credits	Requisites/Comments
CSC 110	Microcomputer Operating Systems and Architecture	3	CSC 105 or CSC 106 or BUS 107
CSC 116	Introduction to Information Systems Security	3	CSC 105 or CSC 106 or BUS 107
CSC 200	Networking Technologies	3	CSC 110
CSC 251	Windows Workstation Administration	3	Prerequisite(s): CSC 110 Corequisite(s): CSC 200
CSC 252	Windows Server Administration	3	CSC 251
CSC 248	PC Service and Support	3	CSC 110 and CSC 200
___ ___	Elective Required	3-4	
	Recommended Elective:		
	CSC 160 Introduction to UNIX for Web Development	3	MAT 014 or higher and CSC 133 or CSC 161 or permission of chairperson.
	CSC 245 UNIX and Shell Programming	4	CSC 133 or CSC 161

Total Credits: 21

Contact Name: Professor Frank Burke
Contact Phone: 732.906.2526
Contact Email: **FBurke@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/departments/csc**

Liberal Arts

DIVISION OF BUSINESS, COMPUTER SCIENCE AND ENGINEERING TECHNOLOGIES (BCSET)

DIVISION OF SCIENCE, MATHEMATICS AND HEALTH TECHNOLOGIES (SCMHT)

Associate in Arts (A.A.) Degree

This program provides students with a foundation for lifelong intellectual development and a fulfilling life. It also provides critical thinking skills and a base of knowledge they will use over the course of their careers.

What do students learn by studying Liberal Arts?

They receive a solid foundation upon which to build conceptual and communication skills and the essential components of a general education, which make up a large part of every liberal arts career or professional program at the bachelor's degree level. Students also study a foreign language, which is a basic component of a liberal arts education. It broadens their world perspectives by introducing them to another culture and helps develop an awareness of their own language and cultural identity. Students may earn their degree by selecting either the general option or by choosing one of the many specialized options.

Are there any requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Competency in Algebra I may be verified with a passing score on the college's placement test or by completion of the appropriate course. Students must also have a grade of "C" or better in one year of high school laboratory science.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

LIBERAL ARTS BUSINESS DEGREE OPTION

Liberal Arts Business - Associate in Arts (A.A.) Degree - LABUS.AA

Below are required courses for program completion.

*Questions? Contact Professor Nancy Bailey, department chair, at 732.906.2594 or **bam@middlesexcc.edu**.*

Courses		Credits	Requisites/Comments
	General Education Communication:		
ENG 121	English Composition I	3	A passing score the college's placement test or a grade of "C" or better in ENG 010.
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
SPE 121	Fundamentals of Public Speaking	3	
OR			
SPE 123	Discussion and Debate		
	General Education History:		
HIS 121	History of Western Civilization I	3	
HIS 122	History of Western Civilization II	3	
___ ___	General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM) from the following: African-American Studies, Art, Dance, English, Modern Language, Music, Philosophy, and Theatre.
___ ___	Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either: FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
___ ___	Language Elective General Education Humanities (GE HUM)	3	
	General Education Mathematics, Science and Technology:		
___ ___	Technology Elective (GE MST)	3	Students must take 12-15 credits in general education mathematics, science, and technology courses (GE MST). Choose one science course, two math courses and one technology course in consultation with an academic advisor. For their technology elective, students should choose either BUS 107, CSC 105, or CSC 106. (Students may also choose a programming course if taken along with MAT 014.) For their math electives students should choose one of the following sequences: • MAT 123, MAT 124 • MAT 129A, MAT 129B, MAT 131A, MAT 131B • MAT 129, MAT 131A, MAT 131B • MAT 129, MAT 131 • MAT 131A, MAT 131B, MAT 132 • MAT 131, MAT 132 • MAT 131A, MAT 131B, MAT 285 • MAT 131, MAT 285
___ ___	Mathematics Elective (GE MST)	3-4	
___ ___	Science Elective (GE MST)	3-4	
___ ___	Mathematics or Science Elective (GE MST)	3-4	
	General Education Social Sciences:		
___ ___	General Education Social Sciences Elective (GE SS)	3	Choose courses designated in the course descriptions as general education social sciences (GE SS) from the following: African-American Studies, Anthropology, Economics, Political Science, Psychology and Sociology.
___ ___	General Education Social Sciences Elective (GE SS)	3	
	Liberal Arts Electives:		
ACC 101	Financial Accounting	4	
ACC 102	Managerial Accounting	4	Prerequisite(s): ACC 101
ECO 201	Principles of Economics I	3	A passing score on the algebra portion on the college's placement test or MAT 013.
ECO 202	Principles of Economics II	3	Prerequisite(s): ECO 201 or permission of department chairperson
___ ___	General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___	Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course except PED 270.

Total Credits: 60-65

Contact Name: Professor Nancy Bailey
Contact Phone: 732.906.2594
Contact Email: **bam@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/departments/bam**

LIBERAL ARTS COMMUNICATION DEGREE OPTION

VISUAL, PERFORMING, AND MEDIA ARTS

Liberal Arts Communications - Associate in Arts (A.A.) Degree - LACOM.AA

*Questions? Contact Assistant Professor Nadine Heller, department chair, at 732.906.2589 or **NHeller@middlesexcc.edu**.*

Below are required courses for program completion.

Courses		Credits	Requisites / Comments
	General Education Communication:		
ENG 121	English Composition I	3	A passing score the college's placement test or a grade of "C" or better in ENG 010.
ENG 122 OR ENG 125	English Composition II	3	A grade of "C" or better in ENG 121
SPE 121 OR SPE 123	Fundamentals of Public Speaking Discussion and Debate	3	
	General Education History:		
HIS 121	History of Western Civilization I	3	
HIS 122	History of Western Civilization II	3	
___ ___	General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM) from the following: African-American Studies, Art, Dance, English, Modern Language, Music, Philosophy, and Theatre.
___ ___	Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either: FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
___ ___	Language Elective General Education Humanities (GE HUM)	3	
	General Education Mathematics, Science and Technology:		
___ ___	Technology Elective (GE MST)	3	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one science course, two math courses and one technology course in consultation with an academic advisor. For their technology elective, students should choose either BUS 107, CSC 105, or CSC 106. (Students may also choose a programming course if taken along with MAT 014.)
___ ___	Mathematics Elective (GE MST)	3-4	
___ ___	Science Elective (GE MST)	3-4	
___ ___	Mathematics or Science Elective (GE MST)	3-4	
	General Education Social Sciences:		
___ ___	General Education Social Sciences Elective (GE SS)	3	Choose courses designated in the course descriptions as general education social sciences (GE SS) from the following: African-American Studies, Anthropology, Economics, Political Science, Psychology and Sociology.
___ ___	General Education Social Sciences Elective (GE SS)	3	
	Liberal Arts Electives:		
COM 105	Introduction to Communication Study	3	
COM 110	Interpersonal Communication	3	Prerequisite(s): COM 105
COM 121	Mass Communication Study	3	Prerequisite(s): COM 105
___ ___	*Recommended Courses (select one - 3 credits each):* COM 115 Intercultural Communication COM 120 Introduction to Public Relations COM 131 Intro to Broadcasting COM 208 Communication Seminar & Field Experience COM 210 Radio Broadcasting Production LNC 123 Introduction to the Study of Human Language SPE 123 Discussion and Debate ENG 205 Introduction to Journalism	3	Prerequisite(s): COM 105 With permission of the department chair, COM 208 or COM 210 may be replaced with a course relevant to the student's special focus in the communication field which will assist the student in transferring to a four-year college or university in communication.
___ ___	General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___	Divisional Elective	3	Choose one course from the following areas: AFS, ART, CJU, COM, COR, DAN, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MUS, PED, PHI, POL, POS, PSY, SSD, SOC, SPA, SPE and THE.
___ ___	Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course except PED 270.

Total Credits: 61-66

Contact Name: Assistant Professor Nadine Heller
Contact Phone: 732.906.2589
Contact Email: **NHeller@middlesexcc.edu**

LIBERAL ARTS DANCE DEGREE OPTION

Liberal Arts Dance - Associate in Arts (A.A.) Degree - LADAN.AA

*Questions? Contact Professor Robert Wisniewski, department chair, at 732.906.2558 or **RWisniewski@middlesexcc.edu**.*

Below are required courses for program completion.

Courses		Credits	Requisites/Comments
	General Education Communication:		
ENG 121	English Composition I	3	A passing score the college's placement test or a grade of "C" or better in ENG 010.
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
SPE 121	Fundamentals of Public Speaking	3	
OR			
SPE 123	Discussion and Debate		
	General Education History:		
HIS 121	History of Western Civilization I	3	
HIS 122	History of Western Civilization II	3	
___ ___	General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM) from the following: African-American Studies, Art, Dance, English, Modern Language, Music, Philosophy, and Theatre.
___ ___	Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either: FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
___ ___	Language Elective General Education Humanities (GE HUM)	3	
	General Education Mathematics, Science and Technology:		
___ ___	Technology Elective (GE MST)	3	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one science course, two math courses and one technology course in consultation with an academic advisor. For their technology elective, students should choose either BUS 107, CSC 105, or CSC 106. (Students may also choose a programming course if taken along with MAT 014.)
___ ___	Mathematics Elective (GE MST)	3-4	
___ ___	Science Elective (GE MST)	3-4	
___ ___	Mathematics or Science Elective (GE MST)	3-4	
	General Education Social Sciences:		
___ ___	General Education Social Sciences Elective (GE SS)	3	Choose courses designated in the course descriptions as general education social sciences (GE SS) from the following: African-American Studies, Anthropology, Economics, Political Science, Psychology and Sociology.
___ ___	General Education Social Sciences Elective (GE SS)	3	
	Liberal Arts Electives:		
DAN 131	Elements of Dance	3	
DAN 132	Dance Appreciation	3	
DAN 201	Methods and Modern Techniques in Dance	3	
DAN 202	Improvisation and Composition	3	
___ ___	General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___	Divisional Elective	3	Choose one course from the following areas: AFS, ART, CJU, COM, COR, DAN, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MUS, PED, PHI, POL, POS, PSY, SSD, SOC, SPA, SPE and THE.
___ ___	Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course except PED 270.

Total Credits: 61-66

Contact Name: Professor Robert Wisniewski
Contact Phone: 732.906.2558
Contact Email: **RWisniewski@middlesexcc.edu**

LIBERAL ARTS EDUCATION DEGREE OPTION

PSYCHOLOGY AND EDUCATION

Liberal Arts Education - Associate in Arts (A.A.) Degree - LAEDU.AA

*Questions? Contact Dr. Steven Barnhart, department chair, at 732.906.2590 or **SBarnhart@middlesexcc.edu**.*

Below are required courses for program completion.

Courses		Credits	Requisites/Comments
	General Education Communication:		
ENG 121	English Composition I	3	A passing score the college's placement test or a grade of "C" or better in ENG 010.
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
SPE 121	Fundamentals of Public Speaking	3	
OR			
SPE 123	Discussion and Debate		
	General Education History:		
HIS 121	History of Western Civilization I	3	
HIS 122	History of Western Civilization II	3	
___ ___	General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM) from the following: African-American Studies, Art, Dance, English, Modern Language, Music, Philosophy, and Theatre.
___ ___	Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either: FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
___ ___	Language Elective General Education Humanities (GE HUM)	3	
	General Education Mathematics, Science and Technology:		
___ ___	Technology Elective (GE MST)	3	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one science course, two math courses and one technology course in consultation with an academic advisor. For their technology elective, students should choose either BUS 107, CSC 105, or CSC 106. (Students may also choose a programming course if taken along with MAT 014.)
___ ___	Mathematics Elective (GE MST)	3-4	
___ ___	Science Elective (GE MST)	3-4	
___ ___	Mathematics or Science Elective (GE MST)	3-4	
	General Education Social Sciences:		
PSY 123	Introduction to Psychology	3	
PSY 255	Adolescent Psychology	3	Prerequisite(s): PSY 123
OR			
PSY 223	Child Psychology	3	Prerequisite(s): PSY 123
	Liberal Arts Electives:		
EDU 121	Introduction to Education	3	*Choose electives in Liberal Arts content areas from any of the college's three divisions. These include courses with the following designations: AFS, ART, BIO, CHM, COM, DAN, ECO, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MAT, MUS, PED, PHI, POS, PSY, SCI, SOC, SPA, SPE and THE. Consult with your advisor or a transfer counselor for electives related to the four-year college or university you plan to attend.
___ ___	Content Area Elective	3	
___ ___	Content Area Elective	3	
___ ___	Content Area Elective	3	
	Divisional Elective:		
PSY 226	Educational Psychology	3	Prerequisite(s): PSY 123
___ ___	General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___	Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course except PED 270.

Total Credits: 61-66

*Subject area concentrations may be added to the Liberal Arts Education degree by working with an academic advisor to select the 9-credit content area electives in a particular subject area.

Here are some examples:

CONCENTRATION:

Music Concentration:

MUS 123 Music History: Traditional	3
MUS 131 Keyboard Studies I	3
MUS 140 Music Fundamentals	3

Modern Language Concentration:			
LNC 123	Introduction to the study of Human Language	3	Choose 6 additional credits in modern language courses that have not been taken to satisfy the requirements of the degree.
Additional credits		6	
History Concentration:			
HIS 221	US History I	3	
HIS 222	US History II	3	
HIS 256	History of the Twentieth Century	3	
English Concentration:			
ENG 221	English Literature I	3	Prerequisite(s): ENG 122 or ENG 125
(or ENG 225	World Literature II)		Prerequisite(s): ENG 122 or ENG 125
ENG 222	English Literature II	3	Prerequisite(s): ENG 122 or ENG 125
(or ENG 226	World Literature II)		Prerequisite(s): ENG 122 or ENG 125
ENG 212	Children's Literature	3	Prerequisite(s): ENG 121
(or ENG 228	Modern British and American Poetry)		Prerequisite(s): ENG 122 or ENG 125

Contact Name: Dr. Steven Barnhart
Contact Phone: 732.906.2590
Contact Email: **SBarnhart@middlesexcc.edu**
Department web: **http://www.middlesexcc.edu/academi/psyedu/**

LIBERAL ARTS ENGLISH DEGREE OPTION

Liberal Arts English - Associate in Arts (A.A.) Degree - LAENG.AA

*Questions? Contact Dr. Daniel Zimmerman, department chair, at 732.906.2591 or **DZimmerman@middlesexcc.edu**.*

Below are required courses for program completion.

Courses		Credits	Requisites/Comments
	General Education Communication:		
ENG 121	English Composition I	3	A passing score the college's placement test or a grade of "C" or better in ENG 010.
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
SPE 121	Fundamentals of Public Speaking	3	
OR			
SPE 123	Discussion and Debate		
	General Education History:		
HIS 121	History of Western Civilization I	3	
HIS 122	History of Western Civilization II	3	
___ ___	General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM) from the following: African-American Studies, Art, Dance, English, Modern Language, Music, Philosophy, and Theatre.
___ ___	Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either: FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
___ ___	Language Elective General Education Humanities (GE HUM)	3	
	General Education Mathematics, Science and Technology:		
___ ___	Technology Elective (GE MST)	3	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one science course, two math courses and one technology course in consultation with an academic advisor. For their technology elective, students should choose either BUS 107, CSC 105, or CSC 106. (Students may also choose a programming course if taken along with MAT 014.)
___ ___	Mathematics Elective (GE MST)	3-4	
___ ___	Science Elective (GE MST)	3-4	
___ ___	Mathematics or Science Elective (GE MST)	3-4	
	General Education Social Sciences:		
___ ___	General Education Social Sciences Elective (GE SS)	3	Choose courses designated in the course descriptions as general education social sciences (GE SS) from the following: African-American Studies, Anthropology, Economics, Political Science, Psychology and Sociology.
___ ___	General Education Social Sciences Elective (GE SS)	3	
	Liberal Arts Electives:		
___ ___	English Elective	3	Choose four English courses (ENG) numbered 200 or higher that the student is not taking to satisfy other requirements for the degree. All courses have a prerequisite of ENG 122 or ENG 125. In addition, courses with a prerequisite should be completed sequentially.
___ ___	English Elective	3	
___ ___	English Elective	3	
___ ___	English Elective	3	

___ ___	General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___	Divisional Elective	3	Choose one course from the following areas: AFS, ART, CJU, COM, COR, DAN, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MUS, PED, PHI, POL, POS, PSY, SSD, SOC, SPA, SPE and THE.
___ ___	Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course except PED 270.

Total Credits: 61-66

Contact Name: Dr. Daniel Zimmerman
Contact Phone: 732.906.2591
Contact Email: **DZimmerman@middlesexcc.edu**

LIBERAL ARTS GENERAL DEGREE OPTION

Liberal Arts General - Associate in Arts (A.A.) Degree - LAGEN.AA

Below are required courses for program completion.

Courses		Credits	Requisites/Comments
	General Education Communication:		
ENG 121	English Composition I	3	A passing score the college's placement test or a grade of "C" or better in ENG 010.
ENG 122 OR ENG 125	English Composition II English Composition II: Writing About Literature	3	A grade of "C" or better in ENG 121
SPE 121 OR SPE 123	Fundamentals of Public Speaking Discussion and Debate	3	
	General Education History:		
HIS 121	History of Western Civilization I	3	
HIS 122	History of Western Civilization II	3	
___ ___	General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM) from the following: African-American Studies, Art, Dance, English, Modern Language, Music, Philosophy, and Theatre.
___ ___	Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either: FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
___ ___	Language Elective General Education Humanities (GE HUM)	3	
	General Education Mathematics, Science and Technology:		
___ ___	Technology Elective (GE MST)	3	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one science course, two math courses and one technology course in consultation with an academic advisor. For their technology elective, students should choose either BUS 107, CSC 105, or CSC 106. (Students may also choose a programming course if taken along with MAT 014.)
___ ___	Mathematics Elective (GE MST)	3-4	
___ ___	Science Elective (GE MST)	3-4	
___ ___	Mathematics or Science Elective (GE MST)	3-4	
	General Education Social Sciences:		
___ ___	General Education Social Sciences Elective (GE SS)	3	Choose courses designated in the course descriptions as general education social sciences (GE SS) from the following: African-American Studies, Anthropology, Economics, Political Science, Psychology and Sociology.
___ ___	General Education Social Sciences Elective (GE SS)	3	
	Liberal Arts Electives:		
___ ___	Liberal Arts Elective	3	Choose four courses from the following areas that are not being taken to satisfy other requirements: AFS, ART, COM, DAN, ENG, FRE, GER, HED, HIS, ITA, LNC, MUS, PED, PHI, POS, PSY, SOC, SPA, SPE and THE.
___ ___	Liberal Arts Elective	3	
___ ___	Liberal Arts Elective	3	
___ ___	Liberal Arts Elective	3	
___ ___	General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___	Divisional Elective	3	Choose one course from the following areas: AFS, ART, CJU, COM, COR, DAN, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MUS, PED, PHI, POL, POS, PSY, SSD, SOC, SPA, SPE and THE.
___ ___	Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course except PED 270.

Total Credits: 61-66

LIBERAL ARTS HISTORY DEGREE OPTION

Liberal Arts History - Associate in Arts (A.A.) Degree - LAHIS.AA

*Questions? Contact Dr. Steven Barnhart, department chair, at 732.906.2590 or **SBarnhart@middlesexcc.edu**, or Academic Advising at 732.906.2596 (**Advisor@middlesexcc.edu**).*

Below are required courses for program completion.

Courses		Credits	Requisites / Comments
	General Education Communication:		
ENG 121	English Composition I	3	A passing score the college's placement test or a grade of "C" or better in ENG 010.
ENG 122 OR ENG 125	English Composition II English Composition II: Writing About Literature	3	A grade of "C" or better in ENG 121
SPE 121 OR SPE 123	Fundamentals of Public Speaking Discussion and Debate	3	
	General Education History:		
HIS 121	History of Western Civilization I	3	
HIS 122	History of Western Civilization II	3	
___ ___	General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM) from the following: African-American Studies, Art, Dance, English, Modern Language, Music, Philosophy, and Theatre.
___ ___	Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either: FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
___ ___	Language Elective General Education Humanities (GE HUM)	3	
	General Education Mathematics, Science and Technology:		
___ ___	Technology Elective (GE MST)	3	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one science course, two math courses and one technology course in consultation with an academic advisor. For their technology elective, students should choose either BUS 107, CSC 105, or CSC 106. (Students may also choose a programming course if taken along with MAT 014.)
___ ___	Mathematics Elective (GE MST)	3-4	
___ ___	Science Elective (GE MST)	3-4	
___ ___	Mathematics or Science Elective (GE MST)	3-4	
	General Education Social Sciences:		
___ ___	General Education Social Sciences Elective (GE SS)	3	Choose courses designated in the course descriptions as general education social sciences (GE SS) from the following: African-American Studies, Anthropology, Economics, Political Science, Psychology and Sociology.
___ ___	General Education Social Sciences Elective (GE SS)	3	
	Liberal Arts Electives:		
___ ___	History Elective	3	Students should choose four History courses (HIS) that they are not taking to satisfy other requirements for the degree.
___ ___	History Elective	3	
___ ___	History Elective	3	
___ ___	History Elective	3	
___ ___	General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___	Divisional Elective	3	Choose one course from the following areas: AFS, ART, CJU, COM, COR, DAN, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MUS, PED, PHI, POL, POS, PSY, SSD, SOC, SPA, SPE and THE.
___ ___	Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course except PED 270.

Total Credits: 61-66

Contact Name: Dr. Steven Barnhart
Contact Phone: 732.906.2590
Contact Email: **SBarnhart@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/departments/psyedu**

LIBERAL ARTS JOURNALISM DEGREE OPTION

Liberal Arts Journalism - Associate in Arts (A.A.) Degree - LAJOU.AA

*Questions? Contact Dr. Daniel Zimmerman, department chair, at 732.906.2591 or **DZimmerman@middlesexcc.edu**.*

Below are required courses for program completion.

Courses		Credits	Requisites/Comments
	General Education Communication:		
ENG 121	English Composition I	3	A passing score the college's placement test or a grade of "C" or better in ENG 010.
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
SPE 121	Fundamentals of Public Speaking	3	
OR			
SPE 123	Discussion and Debate		
	General Education History:		
HIS 121	History of Western Civilization I	3	
HIS 122	History of Western Civilization II	3	
___ ___	General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM) from the following: African-American Studies, Art, Dance, English, Modern Language, Music, Philosophy, and Theatre.
___ ___	Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either: FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
___ ___	Language Elective General Education Humanities (GE HUM)	3	
	General Education Mathematics, Science and Technology:		
___ ___	Technology Elective (GE MST)	3	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one science course, two math courses and one technology course in consultation with an academic advisor. For their technology elective, students should choose either BUS 107, CSC 105, or CSC 106. (Students may also choose a programming course if taken along with MAT 014.)
___ ___	Mathematics Elective (GE MST)	3-4	
___ ___	Science Elective (GE MST)	3-4	
___ ___	Mathematics or Science Elective (GE MST)	3-4	
	General Education Social Sciences:		
___ ___	General Education Social Sciences Elective (GE SS)	3	Choose courses designated in the course descriptions as general education social sciences (GE SS) from the following: African-American Studies, Anthropology, Economics, Political Science, Psychology and Sociology.
___ ___	General Education Social Sciences Elective (GE SS)	3	
	Liberal Arts Electives:		
ENG 205	Introduction to Journalism	3	Prerequisite(s): ENG 122 or ENG 125 or permission of department chair
ENG 206	Journalism Workshop	3	Prerequisite(s): ENG 205 or permission of department chair
ENG 214	Journalism/Writing Field Experience	3	Prerequisite(s): ENG 205 or ENG 235 or ENG/BUS 240 and permission of department chair. Corequisite(s): ENG 206
___ ___	*Recommended Courses (select one - 3 credits each):* ENG 235 Creative Writing I ENG 225 World Literature I ENG 226 World Literature II POS 201 US State and Local Government	3	Prerequisite(s): ENG 122 or ENG 125 or permission of department chair
___ ___	General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___	Divisional Elective	3	Choose one course from the following areas: AFS, ART, CJU, COM, COR, DAN, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MUS, PED, PHI, POL, POS, PSY, SSD, SOC, SPA, SPE and THE.
___ ___	Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course except PED 270.

Total Credits: 61-66

Contact Name: Dr. Daniel Zimmerman
Contact Phone: 732.906.2591
Contact Email: **DZimmerman@middlesexcc.edu**

LIBERAL ARTS MODERN LANGUAGE DEGREE OPTION

ESL/LANGUAGES AND CULTURE DEPARTMENT

Liberal Arts Modern Language - Associate in Arts (A.A.) Degree - LAMLA.AA

*Questions? Contact Dr. Virgil Blanco, department chair, at 732.906.2597 or **VBlanco@middlesexcc.edu**.*

Below are required courses for program completion.

Courses		Credits	Requisites/Comments
	General Education Communication:		
ENG 121	English Composition I	3	A passing score the college's placement test or a grade of "C" or better in ENG 010.
ENG 122 OR ENG 125	English Composition II English Composition II: Writing About Literature	3	A grade of "C" or better in ENG 121
SPE 121 OR SPE 123	Fundamentals of Public Speaking Discussion and Debate	3	
	General Education History:		
HIS 121	History of Western Civilization I	3	
HIS 122	History of Western Civilization II	3	
___ ___	General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM) from the following: African-American Studies, Art, Dance, English, Modern Language, Music, Philosophy, and Theatre.
___ ___	Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either: FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
___ ___	Language Elective General Education Humanities (GE HUM)	3	
	General Education Mathematics, Science and Technology:		
___ ___	Technology Elective (GE MST)	3	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one science course, two math courses and one technology course in consultation with an academic advisor. For their technology elective, students should choose either BUS 107, CSC 105, or CSC 106. (Students may also choose a programming course if taken along with MAT 014.)
___ ___	Mathematics Elective (GE MST)	3-4	
___ ___	Science Elective (GE MST)	3-4	
___ ___	Mathematics or Science Elective (GE MST)	3-4	
	General Education Social Sciences:		
___ ___	General Education Social Sciences Elective (GE SS)	3	Choose courses designated in the course descriptions as general education social sciences (GE SS) from the following: African-American Studies, Anthropology, Economics, Political Science, Psychology and Sociology.
___ ___	General Education Social Sciences Elective (GE SS)	3	
	Liberal Arts Electives:		
___ ___	Modern Language Elective	3	Choose four modern language courses that you are not taking to satisfy the core requirements of the degree. The following courses are recommended: LNC 123 Introduction to the Study of Modern Languages COM 115 Intercultural Communication
___ ___	Modern Language Elective	3	
___ ___	Modern Language Elective	3	
___ ___	Modern Language Elective	3	
___ ___	General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___	Divisional Elective	3	Choose one course from the following areas: AFS, ART, CJU, COM, COR, DAN, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MUS, PED, PHI, POL, POS, PSY, SSD, SOC, SPA, SPE and THE.
___ ___	Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course except PED 270.

Total Credits: 61-66

Contact Name: Dr. Virgil Blanco
Contact Phone: 732.906.2529
Contact Email: **VBlanco@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/academi/lang**

LIBERAL ARTS MUSIC DEGREE OPTION

VISUAL, PERFORMING, AND MEDIA ARTS

Liberal Arts Music - Associate in Arts (A.A.) Degree - LAMUS.AA

*Questions? Contact Assistant Professor Nadine Heller, department chair, at 732.906.2589 or **NHeller@middlesexcc.edu**.*

Below are required courses for program completion.

Courses		Credits	Requisites / Comments
	General Education Communication:		
ENG 121	English Composition I	3	A passing score the college's placement test or a grade of "C" or better in ENG 010.
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
SPE 121	Fundamentals of Public Speaking	3	
OR			
SPE 123	Discussion and Debate		
	General Education History:		
HIS 121	History of Western Civilization I	3	
HIS 122	History of Western Civilization II	3	
___ ___	General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM) from the following: African-American Studies, Art, Dance, English, Modern Language, Music, Philosophy, and Theatre.
___ ___	Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either: FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
___ ___	Language Elective General Education Humanities (GE HUM)	3	
	General Education Mathematics, Science and Technology:		
___ ___	Technology Elective (GE MST)	3	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one science course, two math courses and one technology course in consultation with an academic advisor. For their technology elective, students should choose either BUS 107, CSC 105, or CSC 106. (Students may also choose a programming course if taken along with MAT 014.)
___ ___	Mathematics Elective (GE MST)	3-4	
___ ___	Science Elective (GE MST)	3-4	
___ ___	Mathematics or Science Elective (GE MST)	3-4	
	General Education Social Sciences:		
___ ___	General Education Social Sciences Elective (GE SS)	3	Choose courses designated in the course descriptions as general education social sciences (GE SS) from the following: African-American Studies, Anthropology, Economics, Political Science, Psychology and Sociology.
___ ___	General Education Social Sciences Elective (GE SS)	3	
	Liberal Arts Electives:		
MUS 131	Keyboard Studies I	3	
MUS 132	Keyboard Studies II	3	Prerequisite(s): MUS 131
MUS 140	Music Fundamentals	3	
MUS 201	Music Notation and Composition I	3	Prerequisite(s): MUS 140 or a passing score on music theory placement test
	Divisional Elective:		
MUS 202	Music Notation and Composition II	3	Prerequisite(s): MUS 201
___ ___	General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___	Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course except PED 270.

Total Credits: 61-66

Contact Name: Assistant Professor Nadine Heller
Contact Phone: 732.906.2589
Contact Email: **NHeller@middlesexcc.edu**

LIBERAL ARTS PHYSICAL EDUCATION/RECREATION DEGREE OPTION

Liberal Arts Physical Education/Recreation - Associate in Arts (A.A.) Degree - LAPED.AA

*Questions? Contact Robert Wisniewski, department chair, at 732.906.2558 or **RWisniewski@middlesexcc.edu**.*

Below are required courses for program completion.

Courses		Credits	Requisites/Comments
	General Education Communication:		
ENG 121	English Composition I	3	A passing score the college's placement test or a grade of "C" or better in ENG 010.
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
SPE 121	Fundamentals of Public Speaking	3	
OR			
SPE 123	Discussion and Debate		
	General Education History:		
HIS 121	History of Western Civilization I	3	
HIS 122	History of Western Civilization II	3	
___ ___	General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM) from the following: African-American Studies, Art, Dance, English, Modern Language, Music, Philosophy, and Theatre.
___ ___	Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either: FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
___ ___	Language Elective General Education Humanities (GE HUM)	3	
	General Education Mathematics, Science and Technology:		
___ ___	Technology Elective (GE MST)	3	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one science course, two math courses and one technology course in consultation with an academic advisor. For their technology elective, students should choose either BUS 107, CSC 105, or CSC 106. (Students may also choose a programming course if taken along with MAT 014.)
___ ___	Mathematics Elective (GE MST)	3-4	
___ ___	Science Elective (GE MST)	3-4	
___ ___	Mathematics or Science Elective (GE MST)	3-4	
	General Education Social Sciences:		
___ ___	General Education Social Sciences Elective (GE SS)	3	Choose courses designated in the course descriptions as general education social sciences (GE SS) from the following: African-American Studies, Anthropology, Economics, Political Science, Psychology and Sociology.
___ ___	General Education Social Sciences Elective (GE SS)	3	
	Liberal Arts Electives:		
HED 150	Contemporary Health Issues	3	
HED 200	Human Sexuality & Family Life	3	
PED 225	First Aid, CPR, & Safety Education	3	
___ ___	Physical/Health Education Elective	1	Choose three one-credit activity classes offered by the department.
___ ___	Physical/Health Education Elective	1	
___ ___	Physical/Health Education Elective	1	
___ ___	General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___	Divisional Elective	3	Choose one course from the following areas: AFS, ART, CJU, COM, COR, DAN, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MUS, PED, PHI, POL, POS, PSY, SSD, SOC, SPA, SPE and THE.
___ ___	Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course except PED 270.

Total Credits: 61-66

Contact Name: Professor Robert Wisniewski
Contact Phone: 732.906.2558
Contact Email: **RWisniewski@middlesexcc.edu**

LIBERAL ARTS POLITICAL SCIENCE DEGREE OPTION

Liberal Arts Political Science - Associate in Arts (A.A.) Degree - LAPOS.AA

Questions? Contact Dr. Steven Barnhart, department chair, at 732.906.2590 or **SBarnhart@middlesexcc.edu**.

Below are required courses for program completion.

Courses		Credits	Requisites/Comments
	General Education Communication:		
ENG 121	English Composition I	3	A passing score the college's placement test or a grade of "C" or better in ENG 010.
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
SPE 121	Fundamentals of Public Speaking	3	
OR			
SPE 123	Discussion and Debate		
	General Education History:		
HIS 121	History of Western Civilization I	3	
HIS 122	History of Western Civilization II	3	
___ ___	General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM) from the following: African-American Studies, Art, Dance, English, Modern Language, Music, Philosophy, and Theatre.
___ ___	Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either: FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
___ ___	Language Elective General Education Humanities (GE HUM)	3	
	General Education Mathematics, Science and Technology:		
___ ___	Technology Elective (GE MST)	3	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one science course, two math courses and one technology course in consultation with an academic advisor. For their technology elective, students should choose either BUS 107, CSC 105, or CSC 106. (Students may also choose a programming course if taken along with MAT 014.)
___ ___	Mathematics Elective (GE MST)	3-4	
___ ___	Science Elective (GE MST)	3-4	
___ ___	Mathematics or Science Elective (GE MST)	3-4	
	General Education Social Sciences:		
___ ___	General Education Social Sciences Elective (GE SS)	3	Choose courses designated in the course descriptions as general education social sciences (GE SS) from the following: African-American Studies, Anthropology, Economics, Political Science, Psychology and Sociology.
___ ___	General Education Social Sciences Elective (GE SS)	3	
	Liberal Arts Electives:		
POS 121	Introductory Government and Policies	3	
POS 220	United States National Government	3	
___ ___	*Choose two courses from the following - 3 credits each):*	6	
___ ___	POS 201 United States State and Local Government POS 222 Foreign Governments: A Comparative Analysis POS 231 Constitutional Law		Prerequisite(s): POS 121 or POS 201 or POS 220
___ ___	General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___	Divisional Elective	3	Choose one course from the following areas: AFS, ART, CJU, COM, COR, DAN, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MUS, PED, PHI, POL, POS, PSY, SSD, SOC, SPA, SPE and THE.
___ ___	Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course except PED 270.

Total Credits: 61-66

Contact Name: Dr. Steven Barnhart
Contact Phone: 732.906.2590
Contact Email: **SBarnhart@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/departments/psyedu**

LIBERAL ARTS PSYCHOLOGY DEGREE OPTION

Liberal Arts Psychology - Associate in Arts (A.A.) Degree - LAPSY.AA

*Questions? Contact Dr. Steven Barnhart, department chair, at 732.906.2590 or **SBarnhart@middlesexcc.edu**, or Academic Advising at 732.906.2596 (**Advisor@middlesexcc.edu**).*

Below are required courses for program completion.

Courses		Credits	Requisites / Comments
	General Education Communication:		
ENG 121	English Composition I	3	A passing score the college's placement test or a grade of "C" or better in ENG 010.
ENG 122 OR ENG 125	English Composition II English Composition II: Writing About Literature	3	A grade of "C" or better in ENG 121
SPE 121 OR SPE 123	Fundamentals of Public Speaking Discussion and Debate	3	
	General Education History:		
HIS 121	History of Western Civilization I	3	
HIS 122	History of Western Civilization II	3	
___ ___	General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM) from the following: African-American Studies, Art, Dance, English, Modern Language, Music, Philosophy, and Theatre.
___ ___	Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either: FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
___ ___	Language Elective General Education Humanities (GE HUM)	3	
	General Education Mathematics, Science and Technology:		
___ ___	Technology Elective (GE MST)	3	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one science course, two math courses and one technology course in consultation with an academic advisor. For their technology elective, students should choose either BUS 107, CSC 105, or CSC 106. (Students may also choose a programming course if taken along with MAT 014.)
___ ___	Mathematics Elective (GE MST)	3-4	
___ ___	Science Elective (GE MST)	3-4	
___ ___	Mathematics or Science Elective (GE MST)	3-4	
	General Education Social Sciences:		
___ ___	General Education Social Sciences Elective (GE SS)	3	Choose courses designated in the course descriptions as general education social sciences (GE SS) from the following: African-American Studies, Anthropology, Economics, Political Science, Psychology and Sociology.
___ ___	General Education Social Sciences Elective (GE SS)	3	
	Liberal Arts Electives:		
___ ___	Psychology Elective	3	Students should choose four Psychology courses (PSY) that are not being taken to satisfy other requirements for the degree.
___ ___	Psychology Elective	3	
___ ___	Psychology Elective	3	
___ ___	Psychology Elective	3	
___ ___	General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___	Divisional Elective	3	Choose one course from the following areas: AFS, ART, CJU, COM, COR, DAN, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MUS, PED, PHI, POL, POS, PSY, SSD, SOC, SPA, SPE and THE.
___ ___	Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course except PED 270.

Total Credits: 61-66

Contact Name: Dr. Steven Barnhart
Contact Phone: 732.906.2590
Contact Email: **SBarnhart@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/departments/psyedu**

LIBERAL ARTS SOCIAL AND REHABILITATION SERVICES DEGREE OPTION

Liberal Arts Social and Rehabilitation Services - Associate in Arts (A.A.) Degree - LASRS.AA

Questions? Contact Dr. Steven Barnhart, department chair, at 732.906.2590 or **SBarnhart@middlesexcc.edu**.

Below are required courses for program completion.

Courses		Credits	Requisites/Comments
	General Education Communication:		
ENG 121	English Composition I	3	A passing score the college's placement test or a grade of "C" or better in ENG 010.
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
SPE 121	Fundamentals of Public Speaking	3	
OR			
SPE 123	Discussion and Debate		
	General Education History:		
HIS 121	History of Western Civilization I	3	
HIS 122	History of Western Civilization II	3	
___ ___	General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM) from the following: African-American Studies, Art, Dance, English, Modern Language, Music, Philosophy, and Theatre.
___ ___	Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either: FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
___ ___	Language Elective General Education Humanities (GE HUM)	3	
	General Education Mathematics, Science and Technology:		
___ ___	Technology Elective (GE MST)	3	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one science course, two math courses and one technology course in consultation with an academic advisor. For their technology elective, students should choose either BUS 107, CSC 105, or CSC 106. (Students may also choose a programming course if taken along with MAT 014.)
___ ___	Mathematics Elective (GE MST)	3-4	
___ ___	Science Elective (GE MST)	3-4	
___ ___	Mathematics or Science Elective (GE MST)	3-4	
	General Education Social Sciences:		
PSY 123	Introduction to Psychology	3	
SOC 121	Introduction to Sociology	3	
	Liberal Arts Electives:		
SOC 131	Contemporary Social Problems	3	Prerequisite(s): SOC 121
SOC 141	Introduction to Social Work and Social Welfare Policy	3	
SOC 205	Minority Groups in U.S. Society	3	
SOC 210	Methods of Social Casework and Counseling	3	
___ ___	General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___	Divisional Elective	3	Choose one course from the following areas: AFS, ART, CJU, COM, COR, DAN, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MUS, PED, PHI, POL, POS, PSY, SSD, SOC, SPA, SPE and THE.
___ ___	Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course except PED 270.

Total Credits: 61-66

Contact Name: Dr. Steven Barnhart
Contact Phone: 732.906.2590
Contact Email: **SBarnhart@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/departments/psyedu**

LIBERAL ARTS SOCIAL SCIENCES DEGREE OPTION

Liberal Arts Social Sciences - Associate in Arts (A.A.) Degree - LASS.AA

Questions? Contact Dr. Steven Barnhart, department chair, at 732.906.2590 or **SBarnhart@middlesexcc.edu**.

Below are required courses for program completion.

Courses		Credits	Requisites/Comments
	General Education Communication:		
ENG 121	English Composition I	3	A passing score the college's placement test or a grade of "C" or better in ENG 010.
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
SPE 121	Fundamentals of Public Speaking	3	
OR			
SPE 123	Discussion and Debate		
	General Education History:		
HIS 121	History of Western Civilization I	3	
HIS 122	History of Western Civilization II	3	
___ ___	General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM) from the following: African-American Studies, Art, Dance, English, Modern Language, Music, Philosophy, and Theatre.
___ ___	Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either: FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
___ ___	Language Elective General Education Humanities (GE HUM)	3	
	General Education Mathematics, Science and Technology:		
___ ___	Technology Elective (GE MST)	3	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one science course, two math courses and one technology course in consultation with an academic advisor. For their technology elective, students should choose either BUS 107, CSC 105, or CSC 106. (Students may also choose a programming course if taken along with MAT 014.)
___ ___	Mathematics Elective (GE MST)	3-4	
___ ___	Science Elective (GE MST)	3-4	
___ ___	Mathematics or Science Elective (GE MST)	3-4	
	General Education Social Sciences:		
___ ___	General Education Social Sciences Elective (GE SS)	3	Choose courses designated in the course descriptions as general education social sciences (GE SS) from the following: African-American Studies, Anthropology, Economics, Political Science, Psychology and Sociology.
___ ___	General Education Social Sciences Elective (GE SS)	3	
	Liberal Arts Electives:		
___ ___	Social Science Elective	3	Students should choose four social science courses (POS, PSY, or SOC) that they are taking to satisfy other requirements for the degree.
___ ___	Social Science Elective	3	
___ ___	Social Science Elective	3	
___ ___	Social Science Elective	3	
___ ___	General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___	Divisional Elective	3	Choose one course from the following areas: AFS, ART, CJU, COM, COR, DAN, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MUS, PED, PHI, POL, POS, PSY, SSD, SOC, SPA, SPE and THE.
___ ___	Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course except PED 270.

Total Credits: 61-66

Contact Name: Dr. Steven Barnhart
Contact Phone: 732.906.2590
Contact Email: **SBarnhart@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/departments/psyedu**

LIBERAL ARTS SOCIOLOGY DEGREE OPTION

Liberal Arts Sociology - Associate in Arts (A.A.) Degree - LASOC.AA

Questions? Contact Dr. Steven Barnhart, department chair, at 732.906.2590 or **SBarnhart@middlesexcc.edu**.

Below are required courses for program completion.

Courses		Credits	Requisites/Comments
	General Education Communication:		
ENG 121	English Composition I	3	A passing score the college's placement test or a grade of "C" or better in ENG 010.
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
SPE 121	Fundamentals of Public Speaking	3	
OR			
SPE 123	Discussion and Debate		
	General Education History:		
HIS 121	History of Western Civilization I	3	
HIS 122	History of Western Civilization II	3	
___ ___	General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM) from the following: African-American Studies, Art, Dance, English, Modern Language, Music, Philosophy, and Theatre.
___ ___	Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either: FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
___ ___	Language Elective General Education Humanities (GE HUM)	3	
	General Education Mathematics, Science and Technology:		
___ ___	Technology Elective (GE MST)	3	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one science course, two math courses and one technology course in consultation with an academic advisor. For their technology elective, students should choose either BUS 107, CSC 105, or CSC 106. (Students may also choose a programming course if taken along with MAT 014.)
___ ___	Mathematics Elective (GE MST)	3-4	
___ ___	Science Elective (GE MST)	3-4	
___ ___	Mathematics or Science Elective (GE MST)	3-4	
	General Education Social Sciences:		
___ ___	General Education Social Sciences Elective (GE SS)	3	Choose courses designated in the course descriptions as general education social sciences (GE SS) from the following: African-American Studies, Anthropology, Economics, Political Science, Psychology and Sociology.
___ ___	General Education Social Sciences Elective (GE SS)	3	
	Liberal Arts Electives:		
___ ___	Sociology Elective	3	Students should choose four Sociology courses (SOC) that they are not taking to satisfy other requirements for the degree.
___ ___	Sociology Elective	3	
___ ___	Sociology Elective	3	
___ ___	Sociology Elective	3	
___ ___	General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___	Divisional Elective	3	Choose one course from the following areas: AFS, ART, CJU, COM, COR, DAN, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MUS, PED, PHI, POL, POS, PSY, SSD, SOC, SPA, SPE and THE.
___ ___	Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course except PED 270.

Total Credits: 61-66

Contact Name: Dr. Steven Barnhart
Contact Phone: 732.906.2590
Contact Email: **SBarnhart@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/departments/psyedu/**

LIBERAL ARTS THEATRE DEGREE OPTION

VISUAL, PERFORMING, AND MEDIA ARTS

Liberal Arts Theatre - Associate in Arts (A.A.) Degree - LATHE.AA

*Questions? Contact Assistant Professor Nadine Heller, department chair, at 732.906.2589 or **NHeller@middlesexcc.edu**.*

Below are required courses for program completion.

Courses		Credits	Requisites/Comments
	General Education Communication:		
ENG 121	English Composition I	3	A passing score the college's placement test or a grade of "C" or better in ENG 010.
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
SPE 121	Fundamentals of Public Speaking	3	
OR			
SPE 123	Discussion and Debate		
	General Education History:		
HIS 121	History of Western Civilization I	3	
HIS 122	History of Western Civilization II	3	
___ ___	General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM) from the following: African-American Studies, Art, Dance, English, Modern Language, Music, Philosophy, and Theatre.
___ ___	Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either: FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
___ ___	Language Elective General Education Humanities (GE HUM)	3	
	General Education Mathematics, Science and Technology:		
___ ___	Technology Elective (GE MST)	3	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one science course, two math courses and one technology course in consultation with an academic advisor. For their technology elective, students should choose either BUS 107, CSC 105, or CSC 106. (Students may also choose a programming course if taken along with MAT 014.)
___ ___	Mathematics Elective (GE MST)	3-4	
___ ___	Science Elective (GE MST)	3-4	
___ ___	Mathematics or Science Elective (GE MST)	3-4	
	General Education Social Sciences:		
___ ___	General Education Social Sciences Elective (GE SS)	3	Choose courses designated in the course descriptions as general education social sciences (GE SS) from the following: African-American Studies, Anthropology, Economics, Political Science, Psychology and Sociology.
___ ___	General Education Social Sciences Elective (GE SS)	3	
	Liberal Arts Electives:		
THE 145	Stagecraft	3	
THE 146	Play Production	3	
___ ___	*Choose two of the following courses - 3 credits each:*	6	
___ ___	DAN 131 Elements of Dance		
	DAN 132 Dance Appreciation		
	DAN 201 Methods and Modern Techniques in Dance		
	SPE 124 Oral Interpretation		
	THE 105 Introduction to Theatre		
	THE 123 Theatre History		
	THE 124 Contemporary Theatre		
	THE 131 Acting I		
	THE 132 Acting II		THE 131
	THE 152 The American Musical		
___ ___	General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___	Divisional Elective	3	Choose one course from the following areas: AFS, ART, CJU, COM, COR, DAN, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MUS, PED, PHI, POL, POS, PSY, SSD, SOC, SPA, SPE and THE.
___ ___	Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course except PED 270.

Total Credits: 61-66

Contact Name: Assistant Professor Nadine Heller
Contact Phone: 732.906.2589
Contact Email: **NHeller@middlesexcc.edu**

LIBERAL ARTS VISUAL ARTS DEGREE OPTION

VISUAL, PERFORMING, AND MEDIA ARTS

Liberal Arts Visual Arts - Associate in Arts (A.A.) Degree - LAVA.AA

*Questions? Contact Assistant Professor Nadine Heller, department chair, at 732.906.2589 or **NHeller@middlesexcc.edu**.*

Below are required courses for program completion.

Courses		Credits	Requisites/Comments
	General Education Communication:		
ENG 121	English Composition I	3	A passing score the college's placement test or a grade of "C" or better in ENG 010.
ENG 122 OR ENG 125	English Composition II English Composition II: Writing About Literature	3	A grade of "C" or better in ENG 121
SPE 121 OR SPE 123	Fundamentals of Public Speaking Discussion and Debate	3	
	General Education History:		
HIS 121	History of Western Civilization I	3	
HIS 122	History of Western Civilization II	3	
___ ___	General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM) from the following: African-American Studies, Art, Dance, English, Modern Language, Music, Philosophy, and Theatre.
___ ___	Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either: FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
___ ___	Language Elective General Education Humanities (GE HUM)	3	
	General Education Mathematics, Science and Technology:		
___ ___	Technology Elective (GE MST)	3	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one science course, two math courses and one technology course in consultation with an academic advisor. For their technology elective, students should choose either BUS 107, CSC 105, or CSC 106. (Students may also choose a programming course if taken along with MAT 014.)
___ ___	Mathematics Elective (GE MST)	3-4	
___ ___	Science Elective (GE MST)	3-4	
___ ___	Mathematics or Science Elective (GE MST)	3-4	
	General Education Social Sciences:		
___ ___	General Education Social Sciences Elective (GE SS)	3	Choose courses designated in the course descriptions as general education social sciences (GE SS) from the following: African-American Studies, Anthropology, Economics, Political Science, Psychology and Sociology.
___ ___	General Education Social Sciences Elective (GE SS)	3	
	Liberal Arts Electives:		
ART 145	Art Fundamentals: Two Dimensions	3	
ART 146	Art Fundamentals: Three Dimensions	3	
___ ___ ___ ___	*Choose two of the following courses - 3 credits each:* ART 123 Art History: Ancient to Renaissance ART 124 Art History: Renaissance to Modern ART 125 Art History: Modern to Contemporary	6	
___ ___	General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___	Divisional Elective	3	Choose one course from the following areas: AFS, ART, CJU, COM, COR, DAN, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MUS, PED, PHI, POL, POS, PSY, SSD, SOC, SPA, SPE and THE.
___ ___	Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course except PED 270.

Total Credits: 61-66

Contact Name: Assistant Professor Nadine Heller
Contact Phone: 732.906.2589
Contact Email: **NHeller@middlesexcc.edu**

LIBERAL ARTS WRITING DEGREE OPTION

Liberal Arts Writing - Associate in Arts (A.A.) Degree - LAWRT.AA

*Questions? Contact Dr. Daniel Zimmerman, department chair, at 732.906.2591 or **DZimmerman@middlesexcc.edu**.*

Below are required courses for program completion.

Courses		Credits	Requisites / Comments
	General Education Communication:		
ENG 121	English Composition I	3	A passing score the college's placement test or a grade of "C" or better in ENG 010.
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
SPE 121	Fundamentals of Public Speaking	3	
OR			
SPE 123	Discussion and Debate		
	General Education History:		
HIS 121	History of Western Civilization I	3	
HIS 122	History of Western Civilization II	3	
___ ___	General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM) from the following: African-American Studies, Art, Dance, English, Modern Language, Music, Philosophy, and Theatre.
___ ___	Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either: FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
___ ___	Language Elective General Education Humanities (GE HUM)	3	
	General Education Mathematics, Science and Technology:		
___ ___	Technology Elective (GE MST)	3	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one science course, two math courses and one technology course in consultation with an academic advisor. For their technology elective, students should choose either BUS 107, CSC 105, or CSC 106. (Students may also choose a programming course if taken along with MAT 014.)
___ ___	Mathematics Elective (GE MST)	3-4	
___ ___	Science Elective (GE MST)	3-4	
___ ___	Mathematics or Science Elective (GE MST)	3-4	
	General Education Social Sciences:		
___ ___	General Education Social Sciences Elective (GE SS)	3	Choose courses designated in the course descriptions as general education social sciences (GE SS) from the following: African-American Studies, Anthropology, Economics, Political Science, Psychology and Sociology.
___ ___	General Education Social Sciences Elective (GE SS)	3	
	Liberal Arts Electives:		
	Choose four English courses (ENG) from the following list of (writing-intensive) courses - 3 credits each:	12	
	ENG 205 Introduction to Journalism		Prerequisite(s): ENG 122 or ENG 125
	ENG 206 Journalism Workshop		Prerequisite(s): ENG 205
	ENG 235 Creative Writing I		Prerequisite(s): ENG 122 or ENG 125
	ENG 236 Creative Writing II		Prerequisite(s): ENG 122 or ENG 125
	ENG 237 Advanced Writing Workshop		Prerequisite(s): ENG 122 or ENG 125
	ENG 238 Technical Writing		Prerequisite(s): ENG 122 or ENG 125
	ENG 240 Business Communication	3	Prerequisite(s): ENG 122 or ENG 125
	ENG 260 Scriptwriting		Prerequisite(s): ENG 122 or ENG 125
___ ___	General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___	Divisional Elective	3	Choose one course from the following areas: AFS, ART, CJU, COM, COR, DAN, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MUS, PED, PHI, POL, POS, PSY, SSD, SOC, SPA, SPE and THE.
___ ___	Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course except PED 270.

Total Credits: 61-66

Contact Name: Dr. Daniel Zimmerman
Contact Phone: 732.906.2591
Contact Email: **DZimmerman@middlesexcc.edu**

Management

BUSINESS ADMINISTRATION AND MANAGEMENT DEPARTMENT

DIVISION OF BUSINESS, COMPUTER SCIENCE AND ENGINEERING TECHNOLOGIES (BCSET)

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

Management is a people-oriented career requiring students to have an understanding of the role of management in a complex and dynamic society. For students with experience in a particular field, earning their degree in management may open up employment and promotion opportunities in various aspects of industry, commerce, specialized institutions, and government.

Can students who major in Management transfer to a four-year college or university?

Articulation agreements with public and private institutions offer students who earn the A.A.S. degree the opportunity to transfer all of their coursework to the four-year institution. Students in specialized programs, or who earn an A.A.S. degree should discuss the transfer process with an advisor.

What will students learn if they study Management?

They establish or upgrade their managerial skills. The program is a comprehensive blend of social science theories, organizational behavior and design, classical management theories, managerial processes, functions, and decision-making.

Are there any requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the college's placement test or by completion of the appropriate course.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

Contact: Professor Nancy Bailey, department chair, at 732.906.2594 or **bam@middlesexcc.edu**.

MANAGEMENT

Associate in Applied Science (A.A.S.) Degree - MGT.AAS

Below are required courses and recommended course groupings and sequences for program completion. Courses may have prerequisites and corequisite requirements. Check course descriptions for details.

Courses		Credits	Requisites/Comments
Semester I			
BUS 101	Business Organization and Management	3	
BUS 107	Computer Applications for Business	3	
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
___ ___	Mathematics Requirement	3-4	BUS 115 is recommended. Students with the appropriate academic prerequisites, in consultation with their academic advisor, should elect the appropriate mathematics course. MAT courses with the designation GE MST fulfills the general education elective.
___ ___	General Education Humanities Elective (GE HUM)	3	
Semester II			
ACC 101	Financial Accounting	4	
ECO 201	Principles of Economics I (GE SS)	3	A passing score on the algebra portion on the college's placement test or MAT 013.
ENG 122	English Composition II	3	A grade of '"C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
MGT 210	Concepts of Business Management	3	BUS 101
___ ___	Physical/Health Education Elective	1-3	
Semester III			
ACC 102	Managerial Accounting	4	ACC 101
MGT 214	Operations Management	3	MGT 210
ECO 202	Principles of Economics II (GE SS)	3	ECO 201
MGT 220	Human Resources Management	3	
SPE 121	Fundamentals of Public Speaking (GE COM)	3	
Semester IV			
BUS 201	Business Law I	3	
MGT 205	Principles of Labor Relations	3	BUS 101 or MGT 210
MGT 216	Seminar in Management Experiences	3	Final course for majors: The following courses are prerequisites for MGT 216: ACC 102, ECO 202, ENG 122, MGT 205, MGT 210, MGT 220. Corequisite(s): MGT 214
___ ___	Recommended Business Elective	3	
	The following Business Electives are recommended for Management Majors - 3 credits each:		
	MGT 208 Management Field Experience		MGT 210
	MKT 201 Marketing I		BUS 101
___ ___	General Education Science Elective (GE MST)	3-4	Students must select courses with the GE MST designation and with a BIO, CHM, PHY or SCI course code.
	Total Credits: 60-64		

NOTE: Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.

MANAGEMENT SUPPORT SERVICES CERTIFICATE - MGTS.CER

Courses		Credits	Requisites/Comments
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
ENG 122 OR ENG 125	English Composition II English Composition II: Writing About Literature	3	A grade of "C" or better in ENG 121
BUS 101	Business Organization and Management	3	
BUS 240	Business Communications	3	**Note:** Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
MGT 210	Concepts Of Business Management	3	BUS 101
MGT 220	Human Resources Management	3	**Note:** Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
MGT 205	Principles of Labor Relations	3	BUS 101 or MGT 220 **Note:** Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
___ ___	General Education Social Sciences Elective (GE SS)	3	
___ ___	Business Elective *The following business electives are recommended - 3 credits each:*	3	
	MKT 201 Marketing I		BUS 101
	MGT 200 Principles of Supervision		
	MGT 208 Management Field Experience		MGT 210 **Note:** Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
___ ___	Business Elective *The following business electives are recommended - 3 credits each:*	3	
	MKT 201 Marketing I		BUS 101
	MGT 200 Principles of Supervision		
	MGT 208 Management Field Experience		MGT 210 **Note:** Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.

Total Credits: 30

Contact Name: Professor Nancy Bailey
Contact Phone: 732.906.2594
Contact Email: **bam@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/departments/bam**

Marketing

BUSINESS ADMINISTRATION AND MANAGEMENT DEPARTMENT

DIVISION OF BUSINESS, COMPUTER SCIENCE AND ENGINEERING TECHNOLOGIES (BCSET)

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

The distribution of goods and services is one of the fastest growing business fields in the nation. It is especially appropriate for alert, vigorous individuals who are capable of bringing new ideas and talents to a dynamic and diversified business establishment. Career possibilities include employment as a marketing trainee, marketing research assistant, advertising assistant, customer relations representative, or sales representative.

Can students who major in Marketing transfer to a four-year college or university?

Articulation agreements with public and private institutions offer students who earn the A.A.S. degree the opportunity to transfer all of their coursework to the four-year institution. Students in specialized programs, or who earn an A.A.S. degree should discuss the transfer process with an advisor.

What will students learn by studying Marketing?

They acquire a firm base of knowledge of business law and mathematics, accounting, computer applications, and economics. Students also study courses in general education and specific courses in marketing.

Note: Not all MKT courses are offered every semester both day and evening. Students should call the department chair at 732.906.2594 to discuss course offerings for future semesters.

Are there any requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the college's placement test or completion of the appropriate course.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

Contact: Professor Nancy Bailey, department chair, at 732.906.2594 or **bam@middlesexcc.edu**.

MARKETING

Associate in Applied Science (A.A.S.) Degree - MKT.AAS

Below are required courses and recommended course groupings and sequences for program completion. Courses may have prerequisites and corequisite requirements. Check course descriptions for details.

Courses		Credits	Requisites / Comments
Semester I			
ACC 101	Financial Accounting	4	
BUS 101	Business Organization and Management	3	
___ ___	Mathematics Requirement	3-4	BUS 115 is recommended. Students with the appropriate academic prerequisites, in consultation with their academic advisor, should elect the appropriate mathematics course. Only MAT courses with the designation GE fulfill the General Education elective.
BUS 107	Computer Applications for Business	3	
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
Semester II			
ACC 102	Managerial Accounting	4	ACC 101
BUS 201	Business Law I	3	
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
MKT 201	Marketing I	3	BUS 101
SPE 121	Fundamentals of Public Speaking (GE COM)	3	
Semester III			
___ ___	*Recommended Business Elective - 3 credits each:*	3	
	MKT 209 Marketing Field Experience		MKT 201
	or		
	BUS 202 Business Law II		BUS 201
ECO 201	Principles of Economics I (GE SS)	3	A passing score on the algebra portion of the college's placement test or MAT 013.
MKT 202	Marketing II	3	MKT 201
MKT 203	Principles of Advertising	3	BUS 101
___ ___	Physical/Health Education Elective	1-3	
Semester IV			
ECO 202	Principles of Economics II (GE SS)	3	ECO 201 or permission of department chair
MKT 143	Salesmanship	3	
MKT 206	Marketing Management Seminar	3	Prerequisite(s): MKT 202 Corequisite(s): ACC 102, BUS 201, ECO 201, ENG 122 or ENG 125, MKT 203
___ ___	General Education Science Elective (GE MST)	3-4	Students must select a course with the GE MST designation from the BIO, CHM, PHY or SCI course code.
___ ___	General Education Humanities (GE HUM)	3	

Total Credits: 60-64

NOTE: Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.

Contact Name: Professor Nancy Bailey
Contact Phone: 732.906.2594
Contact Email: **bam@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/departments/bam**

Mathematics

MATHEMATICS DEPARTMENT

DIVISION OF SCIENCE, MATHEMATICS AND HEALTH TECHNOLOGIES (SCMHT)

Associate in Science (A.S.) Degree

This program parallels the first two years of a baccalaureate degree program in mathematics. The mathematics major prepares students, upon graduation, to transfer to a four-year college or university to pursue professional careers requiring quantitative reasoning and analytical thinking. Traditional mathematics occupations consist of teaching positions in schools and colleges or research positions in universities or industry. Other related mathematics fields include statistics, survey and market research, operations research, computer systems design and programming, economics and finances, and robotics and aerodynamics. Careers in applied mathematics usually focus on developing mathematical models for technical and scientific data, whether in physics, chemistry, biology, engineering or medicine.

Are there any requirements that must be satisfied before taking courses in the major?

Students must demonstrate proficiency in elementary (MAT 013 or MAT 013A/MAT 013B) and intermediate (MAT 014 or MAT 014A/MAT 014B) algebra, as well as precalculus (MAT 129 or MAT 129A/MAT 129B). In addition, they must successfully complete all courses required by the college's placement tests, and fulfill the science course prerequisites. The science courses of biology and chemistry require a high school laboratory course with a minimum grade of "C" or the equivalent developmental science courses (BIO 010, CHM 010).

Can students transfer to a four-year college or university?

The Statewide Transfer Agreement for New Jersey ensures that students who earn an A.A. or A.S. degree at a community college will have those credits fully transferable to a New Jersey public four-year institution, will have completed half of the credits required for a basic four-year degree and will have completed all of the lower division general education requirements. In addition, articulation agreements with private institutions may provide similar transfer provisions. Students should discuss the transfer process with an advisor.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

Contact: Dr. Maria DeLucia, department chair, at 732.906.2585.

MATHEMATICS SCIENCE TRANSFER

Associate in Science (A.S.) Degree - MAT.AS

Below are required courses and recommended course groupings and sequences for program completion. Courses may have prerequisites and corequisite requirements. Check course descriptions for details.

Courses		Credits	Requisites/Comments
Semester I			
BIO 123 OR CHM 123	General Biology I General Chemistry I	4	One year of high school laboratory biology or BIO 010 and one year of high school laboratory chemistry or CHM 010. Also appropriate score on the college's placement test or MAT 013. MAT 014, MAT 014A/ MAT 014B or appropriate score on the college's placement test and one year of high school chemistry.
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
MAT 131	Analytic Geometry & Calculus I OR MAT 131A to be followed by MAT 131B	4	Appropriate score on the college's placement test and/or satisfactory score on the diagnostic examination, "C" or better in MAT 129 or MAT 129A/ MAT 129B, or departmental approval.
___ ___	General Education Social Sciences Elective (GE SS)	3	
___ ___	Physical/Health Education Elective	1-3	
Semester II			
BIO 124 OR CHM 124	General Biology II General Chemistry II	4	BIO 123 CHM 123
ENG 122 OR ENG 125	English Composition II English Composition II: Writing About Literature	3	A grade of "C" or better in ENG 121
MAT 132	Analytic Geometry & Calculus II	4	MAT 131, MAT 131A/MAT 131B or equivalent
___ ___	Computer Science Elective	3-4	Choose CSC 109 or higher
___ ___	General Education Social Sciences Elective (GE SS)	3	
Semester III			
MAT 233	Analytic Geometry & Calculus III	4	MAT 132 or equivalent
	Mathematics Elective	4	Choose from MAT 206, MAT 210, MAT 257, MAT 285
PHY 121	General Physics I	4	MAT 129 Students may substitute PHY 131/PHY 132 for PHY 121-PHY 122.
___ ___	Elective	3	Except SSD 101
___ ___	General Education Humanities Elective (GE HUM)	3	
Semester IV			
MAT 234	Differential Equations	4	MAT 233 or approval of department chairperson
	Mathematics Elective	4	Choose from MAT 206, MAT 210, MAT 257, MAT 285
PHY 122	General Physics I	4	PHY 121 Students may substitute PHY 131-PHY 132 for PHY 121/PHY 122.
___ ___	General Education Humanities Elective (GE HUM)	3	

Total Credits: 65-68

Contact Name: Dr. Maria DeLucia
Contact Phone: 732-906-2585
Contact Email: **MDeLucia@middlesexcc.edu**
Department web: **http://www.middlesexcc.edu/academi/mat**

Mechanical Engineering Technology

ENGINEERING TECHNOLOGIES DEPARTMENT

DIVISION OF BUSINESS, COMPUTER SCIENCE AND ENGINEERING TECHNOLOGIES (BCSET)

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

Mechanical Engineering Technology provides the right combination of theory and hands-on training to prepare students for employment opportunities in the design, manufacture and set-up of mechanical equipment such as engines, power generation and control systems, and manufacturing systems (including robots). Specific job responsibilities include working as a designer, computer aided design/drafting, instrumentation and testing of machines and systems, and developing and troubleshooting manufacturing systems.

Can students who major in Mechanical Engineering Technology transfer to a four-year college or university?

Students may choose to participate in the Joint Admissions Program with the New Jersey Institute of Technology. Articulation agreements with public and private institutions offer students who earn the A.A.S. degree the opportunity to transfer all of their coursework to the four-year institution. Students in specialized programs, or who earn an A.A.S. degree should discuss the transfer process with an advisor.

Are there any requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the college's placement test or completion of the appropriate course. Students must also have a grade of "C" or better in high school algebra II and geometry.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

Contact: Assistant Professor Thom Sabol, department chair, at 732.906.2586.

MECHANICAL ENGINEERING TECHNOLOGY

Associate in Applied Science (A.A.S.) Degree - MEC.AAS

Below are required courses and recommended course groupings and sequences for program completion.

Courses		Credits	Requisites/Comments
Semester I			
MCT 101	Introduction to Technology	2	MAT 013 or passing score on the college's placement test. Corequisite(s): MAT 014
MAT 129A	Precalulus Part A	2	Appropriate score on the college's placement test and/or satisfactory score on the diagnostic examination, "C" or better in MAT 014 or MAT 014A and MAT 014B, or departmental approval. MAT 129 may be substituted for MAT 129A & MAT 129B.
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
ELT 105	Foundations of Electronics Technology	4	MAT 013 or appropriate score on college's placement test. Corequisite(s): MAT 014 or higher level
MEC 123	Technical Graphics/CAD I	3	
PED ___	Physical Education Elective	1	Students have the option of substituting Health Education electives in the place of the Physical Education Elective.
Semester II			
MAT 129B	Precalculus Part B	2	MAT 129A or equivalent courses
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing about Literature		
CIT 105	Statics for Technicians	3	MCT 101, MAT 129A or MAT 129
MEC 125	Advance Mechanical Drawing/CAD II	3	MEC 123
MEC 130	Manufacturing Process & Materials	3	
___ ___	General Education Humanities Elective (GE HUM)	3	
Semester III			
MAT 131A	Analytic Geometry & Calculus I Part A	2	MAT 129 or MAT 129B or appropriate score on the college's placement test and/or satisfactory score on the diagnostic examination, or departmental approval. MAT 131 may be substituted for MAT 131A and MAT 131B.
PHY 121	General Physics	4	MAT 129B or MAT 129
CIT 203	Strength of Materials	4	CIT 105
MEC 228	Kinematics Design	3	MEC 123 and MAT 129B or MAT 129
MEC 250	Solid Modeling	3	MEC 123
Semester IV			
MAT 131B	Analytic Geometry & Calculus I Part B	2	MAT 131A
PHY 122	General Physics II	4	PHY 121
MEC 204	Fluid Mechanics	4	CIT 105, MAT 129B or MAT 129
MEC 260	Mechanical Design Project	2	Prerequisite(s): CIT 203, MEC 228 Corequisite(s): MEC 204, MCT 220
MCT 220	Robotics and Control Systems	3	ELT 105, MEC 123, PHY 121, MAT 129B or MAT 129
___ ___	General Education Social Sciences (GE SS)	3	
		Total Credits: 66	

COMPUTER AIDED DRAFTING CERTIFICATE OF ACHIEVEMENT - MECCD.COA

Courses		Credits	Requisites/Comments
MCT 101	Introduction to Technology	2	Prerequisite(s): MAT 013 or passing score on the college's placement test Corequisite(s): MAT 014
MEC 130	Manufacturing Processes Materials	4	
MEC 123	Technical Graphics/CAD I	3	
CIT 126	Advanced Civil Drawing/CAD II	3	Prerequisite(s): MEC 123
OR			
MEC 125	Advanced Mechanical Drawing/CAD II		
CIT 125	Construction Estimating	2	
MEC 250	Solid Modeling	3	Prerequisite(s): MEC 123
		Total Credits: 17	

Contact Name: Assistant Professor Thom Sabol
Contact Phone: 732.906.2586
Contact Email: **TSabol@middlesexcc.edu**

Media Arts & Design

VISUAL, PERFORMING, AND MEDIA ARTS DEPARTMENT

DIVISION OF BUSINESS, COMPUTER SCIENCE AND ENGINEERING TECHNOLOGIES (BCSET)

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

In this program, students combine computer-linked commercial photography and commercial art with business and general education. The program emphasizes hands-on experience in the laboratory or studio to develop both creative ability and the mechanical skills essential to business-oriented art and photography careers. It prepares students for a career as a commercial artist or photographer in advertising agencies, company advertising departments, publishing companies, photography studios, color reproduction laboratories, printing firms, or retail establishments. The faculty who teach major courses have professional experience in the fields of commercial art and photography as well as in marketing and business.

Can students transfer to a four-year college or university?

Articulation agreements with public and private institutions offer students who earn the A.A.S. degree the opportunity to transfer all of their coursework to the four-year institution. Students in specialized programs, or who earn an A.A.S. degree should discuss the transfer process with an advisor.

Why major in Media Arts & Design?

There is a growing need for computer graphic artists. This program includes a cooperative work experience option. Students who choose this option may be placed in a paid approved position that will enhance competency by providing hands-on experience with state-of-the-art equipment used by professional designers and photographers. They spend a semester working part-time on a one-to-one basis with a graphic designer or commercial photographer learning the latest techniques used in these fields. Job coordinators visit students at these worksites to hold progress review sessions with students and employers. Students also attend a weekly co-op seminar on campus.

Are there any requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the college's placement test or completion of the appropriate course.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

Contact: Assistant Professor Nadine Heller, department chair, at 732.906.2589.

ADVERTISING GRAPHIC ARTS & DESIGN DEGREE OPTION

Associate in Applied Science (A.A.S.) - MADAD.AAS

Below are required courses and recommended course groupings and sequences for program completion.

Courses		Credits	Requisites/Comments
Semester I			
BUS 107	Computer Applications for Business	3	
OR			
CSC 105	Computer Applications & Systems		
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
MAD 107	Photography I	3	
MAD 113	Two-Dimensional Design	3	
MAD 117	Freehand Drawing	3	
___ ___	Physical/Health Education Elective	1-3	
Semester II			
BUS 101	Business Organization and Management	3	
OR			
SBM 120	Small Business Administration		Students who take SBM 120 need special permission to enroll in MKT 203.
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
MAD 102	Art In Industry And Commerce	3	
MAD 108	Photography II	3	MAD 107
MAD 114	Three-Dimensional Design	3	MAD 113 and MAD 117
MAD 118	Graphic Design Skills	3	MAD 113 and MAD 117
Semester III			
AGD 213	Typography	3	All MAD courses except MAD 121.
AGD 219	Digital Graphics	3	All MAD courses except MAD 121.
MAT 101	Freshman Mathematics I	3	Appropriate score on the college's placement test and two years of high school mathematics, MAT 013 or MAT 013A/MAT 013B or departmental approval. **Note:** Students who choose to transfer, in consultation with their academic advisor, should enroll in a mathematics course for which they have the appropriate academic background.
MKT 143	Salesmanship	3	
OR			
MKT 203	Principles of Advertising		BUS 101
___ ___	Divisional Elective	3	SPE 121 or ENG 205 or BUS 205 are recommended. However, students may choose any three credits from any of the following courses: AFA, AGD, ART, CJU, COM, COR, DAN, DMA, EDU, ENG, FRE, GER, HED, ITA, LNC, MAD, MUS, PCP, PED, PHI, POL, POS, PSY, SOC, SPA, SPE, and THE.
Semester IV			
AGD 212	Advertising Design	3	AGD 213 and AGD 219
AGD 214	Print Production	3	AGD 219
AGD 280	Portfolio	3	All MAD courses except MAD 121 and six credits of AGD courses. Corequisite(s): the remaining six credits of AGD courses
___ ___	General Education Science Elective (GE MST)	3-4	Students may elect courses with the GE MST designation in the Biology, Chemistry or Physics Departments for which they have the appropriate academic prerequisites.
___ ___	General Education Social Sciences Elective (GE SS)	3	
		Total Credits: 64-67	

PROFESSIONAL COMMERCIAL PHOTOGRAPHY

Associate in Applied Science (A.A.S.) - MADPH.AAS

Below are required courses and recommended course groupings and sequences for program completion.

Courses		Credits	Requisites/Comments
Semester I			
BUS 107	Computer Applications for Business	3	
OR			
CSC 105	Computer Applications & Systems		
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
MAD 107	Photography I	3	
MAD 113	Two Dimensional Design	3	
MAD 117	Freehand Drawing	3	
___ ___	Physical/Health Education Elective	1-3	
Semester II			
BUS 101	Business Organization and Management	3	
OR			
SMB 120	Small Business Administration		Students who take SBM 120 need special permission to enroll in MKT 203.
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
MAD 102	Art In Industry and Commerce (GE HUM)	3	
MAD 108	Photography II	3	MAD 107
MAD 114	Three-Dimensional Design	3	MAD 113 and MAD 117
MAD 118	Graphic Design Skills	3	MAD 113 and MAD 117
Semester III			
MAT 101	Freshman Mathematics I	3	Appropriate score on the college's placement test and two years of high school mathematics, MAT 013 or MAT 013A/MAT 013B or departmental approval. **Note:** Students who choose to transfer, in consultation with their academic advisor, should enroll in a mathematics course for which they have the appropriate academic background.
MKT 143	Salesmanship	3	
OR			
MKT 203	Principles of Advertising		BUS 101
PCP 221	Color Printing Methods and Practice	3	All MAD courses except MAD 121.
PCP 225	Product and Stock Photography	3	All MAD courses except MAD 121.
___ ___	Divisional Elective	3	SPE 121 or ENG 205 or BUS 205 are recommended. However, students may choose any three credits from any of the following courses: AFA, AGD, ART, CJU, COM, COR, DAN, DMA, EDU, ENG, FRE, GER, HED, ITA, LNC, MAD, MUS, PCP, PED, PHI, POL, POS, PSY, SOC, SPA, SPE, and THE.
Semester IV			
PCP 224	Digital Imagery	3	PCP 221 and PCP 225
PCP 226	Professional/Studio Photography	3	All MAD courses except MAD 121.
PCP 280	Portfolio	3	All MAD courses except MAD 12, and six credits of PCP courses. Corequisite(s): the remaining six credits of PCP courses.
___ ___	General Education Science Elective (GE MST)	3-4	Students may elect courses offered by the Biology, Chemistry or Physics Departments for which they have the appropriate academic prerequisites.
___ ___	General Education Social Sciences Elective (GE SS)	3	

Total Credits: 64-66

Contact Name: Assistant Professor Nadine Heller
Contact Phone: 732.906.2589
Contact Email: **NHeller@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/academi/mad**

Medical Laboratory Technology

MEDICAL LABORATORY TECHNOLOGY DEPARTMENT

The Program in Medical Laboratory Technology is accredited by the National Accrediting Agency for Clinical Laboratory Science (NAACLS).

DIVISION OF SCIENCE, MATHEMATICS AND HEALTH TECHNOLOGIES (SCMHT)

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

Qualified personnel are needed to work for laboratories, research laboratories, pharmaceutical companies, veterinary laboratories, as well as sales and quality control. Students can find positions in hospitals and reference laboratories. Technicians perform scientific analyses that facilitate physicians' diagnoses and treatment of diseases.

What will students learn if they study Medical Laboratory Technology?

Students receive an integrated experience, with lectures and laboratory practices, both on-campus and in clinical facilities off-campus. They learn how to test specimens accurately and swiftly, with the highest ethical standards.

Are there any requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the college's placement test or completion of the appropriate course. Students must have a "C" or better in high school laboratory biology and laboratory chemistry. As a result of the student's performance on the college's placement test, he or she may need developmental coursework. All developmental coursework must be completed before they will be considered for admission to the program.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. Students who register for an average of 17 credits each semester can complete the degree in two years. Students must register for the summer session following their first year.

Are there any special requirements once the student is admitted to this major?

He or she must meet the academic standards of progress outlined on the next page to stay in the program.

Questions?

Contact: Professor Stephen Larkin, department chair, at 732.906.2581.

MEDICAL LABORATORY TECHNOLOGY

Associate in Applied Science (A.A.S.) Degree - MED.AAS

Below are required courses and recommended course groupings and sequences for program completion. Courses may have prerequisites and corequisite requirements. Check course descriptions for details.

Courses		Credits	Requisites/Comments
Semester I			
BIO 119	Biology for Lab Technology I[1]	4	Appropriate score on the college's placement test or MAT 013 and one year high school laboratory science or BIO 010 or CHM 010.
CHM 117	Chemistry I[1]	4	MAT 013 or appropriate score on the college's placement test and one year of high school laboratory science or departmental approval.
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
MAT 107	Mathematics I[2]	3	Appropriate score on the college's placement test, MAT 013 or MAT 013A/MAT 013B or departmental approval.
MED 101	Introduction to Medical Laboratory I	2	Admission to the Medical Laboratory Technology program required or departmental approval. MED 101 is only offered in the fall.
Semester II			
BIO 120	Biology for Lab Technology II[1]	4	BIO 119
CHM 118	Chemistry II[1]	4	CHM 117
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
MAT 108	Mathematics II[2]	3	MAT 107
MED 102	Introduction to Medical Laboratory II	3	BIO 119, CHM 117, ENG 121, MAT 107, MED 101. MED 102 is only offered in the spring.
PSY 123	Introduction to Psychology	3	
Summer			
MED 210	Medical Laboratory Technology I[3]	6	BIO 120, CHM 118, ENG 122, MAT 108, MED 102, and permission of the Division of Mathematics, Science and Health Technologies. MED 210 is only offered in the summer.
Semester III			
BIO 211	Principles of Microbiology[4]	4	One year of high school laboratory biology or BIO 010 and one year of high school laboratory chemistry or CHM 010. Also appropriate score on the college's placement test or MAT 013.
CHM 201	Principles of Organic Chemistry	4	CHM 118 or equivalent
MED 211	Medical Laboratory Technology II[5]	8	MED 210 MED 211 is only offered in the fall.
	Physical/Health Education Elective	1-3	
Semester IV			
CHM 202	Biochemistry	4	CHM 201
MED 212	Medical Laboratory Technology III[5]	8	MED 211, BIO 211 MED 212 is only offered in the spring.
___ ___	General Education Humanities Elective (GE HUM)	3	

Total Credits: 74-76

[1] BIO 123-BIO 124 and CHM 123-CHM 124 may be substituted for BIO 119-BIO 120, CHM 117-CHM 118 for students who meet those course prerequisites and with the chairperson's written approval.
[2] MAT 123-MAT 124 or MAT 129-MAT 131 may be substituted for MAT 107-MAT 108 for students who have completed two or more years of high school Algebra, with the Chairperson's written approval.
[3] This is an eight week, 40 hour/week summer clinical practicum.
[4] BIO 221 may be substituted for BIO 211.
[5] This includes a 16 hour/week clinical practicum.

Medical Laboratory Technology Department Standards of Progress

1. Maintain a cumulative grade point average of 2.0.
2. Must achieve a "C" grade or better in all the Medical Laboratory and science courses. Those not attaining these levels of achievement will be dropped from the program.
3. May retake a science or Medical Laboratory course only once and obtain a passing grade. (i.e. "C" or better) Repeating a Medical Laboratory course is subject to the restrictions as outlined below in #6.
4. Any student achieving a grade less than a "C" in a clinical MED course may not continue in the program. The clinical course with the deficient grade must be repeated subject to the restrictions of the program as outlined below in #6. Any student failing the practicum portion of the course will fail the course.
5. Must complete the MED sequence of MED 210, MED 211, MED 212, in consecutive sequential semesters as offered, i.e. MED 210 in summer, MED 211 in fall, and MED 212 in spring.
6. A break in the sequence of MED 210, MED 211, MED 212 for any reason will require the student to reapply. Readmission to the MED course(s) will be determined by seat availability.
7. Formal sanctions for cheating in any course will result in dismissal from the MLT program.
8. The goals of the program are consistent with the college's mission of developing competencies for employment and continuing education.

Contact Name: Professor Stephen Larkin
Contact Phone: 732.906.2581
Contact Email: **SLarkin@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/academi/med**

Nursing

RARITAN BAY MEDICAL CENTER

DIVISION OF SCIENCE, MATHEMATICS AND HEALTH TECHNOLOGIES (SCMHT)

Associate in Science (A.S.) Degree

This program prepares students for entry-level positions in nursing and for taking the National Council Licensure Examination for Registered Nurses (NCLEX-RN). It has been approved by the New Jersey State Board of Nursing and the New Jersey Council of Presidents, and an application for accreditation from the National League for Nursing Accrediting Commission (NLNAC) has been submitted.

What is the role of Raritan Bay Medical Center (RBMC)?

The Nursing Program is offered in association with the Raritan Bay Medical Center. All courses are offered on the campus of Middlesex County College with the general education courses taught by Middlesex faculty and the nursing courses taught by RBMC nursing faculty.

Are there any special requirements that must be satisfied before taking courses in the major?

Algebra I must be satisfied with a passing score on the college's placement test, a grade of "C" or better on a college level mathematics course, or a mathematics SAT score of 500 or more within the last five years. The student must be a New Jersey resident and have a "C" or better in high school laboratory biology and laboratory chemistry. Students with previous college credit within the last five years must have a GPA of 2.0 or higher for it to be considered. When students apply, they must take the Test of Essential Academic Skills (TEAS), developed by Assessment Technologies Institute (ATI). Based on the results on the college's placement test, students may need developmental coursework, which must be completed before being considered for admission to the nursing program.

How long will it take to complete this degree?

The standard duration of this Associate Degree program is four semesters (two years). Many students elect to take the science and general education courses required in the program before entry into the program. However, the four nursing courses still require four semesters before graduation.

Are there any special requirements once the student is admitted to this major?

He or she must maintain a GPA of 2.0 or higher and meet the academic standards of progress to stay in the nursing program.

Are there additional requirements after graduation to be eligible for licensure?

The New Jersey State Board of Nursing requires that an applicant for licensure as a registered nurse must submit to the Board evidence, in such form as the Board may prescribe, that the applicant is of good moral character, is not a habitual user of drugs and never been convicted or has not pleaded nolo contendere, non vult contendere or non vult to an indictment, information or complaint alleging a violation of any Federal or State law relating to narcotic drugs. Application for licensure may be denied by the Board if violations exist. All licensure candidates must undergo a criminal history record background check, including fingerprinting prior to the issuance of the license.

Can students who major in Nursing transfer to a four-year college or university?

The courses students take may be applied to the Bachelor of Science (BSN) Degree. Any final decision regarding transfer courses will be made by the receiving college. MCC develops articulation agreements that make the transfer process as seamless as possible.

Questions?

Contact: Michelle Foley, RN, MA, director of Nursing Education, **mfoley@rbmc.org**, at 732.906.4660 or Dr. Reginald Luke, dean of Science, Mathematics and Health Technologies, **rluke@middlesexcc.edu**, 732.906.2533.

NURSING

Associate in Science (A.S.) Degree Program - NRB.AS

Below are required courses and recommended course groupings and sequences for program completion. Courses may have prerequisites and corequisite requirements. Check course descriptions for details. In association with Raritan Bay Medical Center (RBMC).

Courses		Credits	Requisites / Comments
Semester I			
BIO 111	Human Anatomy & Physiology I	4	One year of high school laboratory biology or BIO 010 and one year of high school laboratory chemistry or CHM 010 and appropriate score on the college's placement test or MAT 013.
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
PSY 123	Introduction to Psychology	3	
CSC 107	Computers in Health Technologies	1	Students may take other CSC courses with department chairperson's permission.
NRB 121	Nursing Concepts in Health and Wellness	7	BIO 111, ENG 121, PSY 123 American Heart Association BLS Certification
Semester II			
BIO 112	Human Anatomy & Physiology II	4	BIO 111
PSY 232	Life-Span Development	3	PSY 123
ENG 122 OR	English Composition II	3	A grade of "C" or better in ENG 121
ENG 125	English Composition II: Writing About Literature		
NRB 122	Nursing Concepts in Health Alterations I	9	Prerequisite(s): NRB 121; BIO 111; PSY 123 Corequisite(s): BIO 112; PSY 232 (Life-Span Development)
Semester III			
BIO 211	Principles of Microbiology	4	One year of high school laboratory biology or BIO 010 and one year of high school laboratory chemistry or CHM 010. Also appropriate score on the college's placement test or MAT 013.
HRI 214	Nutrition Fundamentals for Nursing	3	NRB 122, BIO 112
NRB 221	Nursing Concepts Applied to Families	9	Prerequisite(s): NRB 122, PSY 232, BIO 112 Corequisite(s): BIO 211, HRI 214
Semester IV			
COM 115	Intercultural Communication	3	
SPE 121	Fundamentals of Public Speaking	3	
PED/HED	Physical/Health Education Elective	1-3	
NRB 222	Nursing Concepts in Health Alterations II	10	NRB 221; B10 112 and BIO 211; HRI 214
		Total Credits: 70-72	

Standard of Progress:

1. Prior to matriculation, a nursing student must undergo a complete history and physical examination and be in compliance with the MCC and Nursing Department policy on immunizations.
2. A student is required to have a criminal background check performed with satisfactory results acceptable by MCC and the Nursing Department and/or participating clinical facility as a condition of admission, initial enrollment and/or continued enrollment. An offer of admission will not be final and enrollment not permitted until the completion of a satisfactory criminal background check. Admission may be denied or rescinded or enrollment terminated based on the results of the criminal background check.
3. Maintain a cumulative GPA of 2.0.
4. Achieve a "C+" grade or better in all nursing courses in order to progress in the curriculum.
5. Achieve a "C" grade or better for all science courses in the nursing program. If a student receives a grade less than "C" in any science course of the nursing program, the student is allowed to repeat one science course only once. Any other unsatisfactory science grades will result in program dismissal.
6. An unsatisfactory grade (i.e. a grade less than "C+") in NRB 121 results in dismissal from the Nursing Program. The student has the option to reapply to the program.
7. If a student earns a grade less than "C+" in any nursing course other than NRB 121, the student may retake the course once and must achieve a grade of "C+" or better; any subsequent failure(s) in a nursing course will result in a dismissal from the Nursing Program. The student has the option to reapply to the Nursing Program, in which case the student may retake the course once and must achieve a "C+" grade or better.
8. Attendance and participation in all scheduled learning activities of the program is expected.
9. Adherence to the policies of MCC and their affiliated health care agencies.
10. A student must complete the nursing program within three years of beginning enrollment in the first nursing course, unless written allowance by the nursing director or dean is provided.
11. A student who does not successfully complete the major nursing sequence under the above conditions may not continue in the program.

Contact Name: Michelle Foley, RN, director of nursing education
Contact Phone: 732.906.4660
Contact Email: **MFoley@rbmc.org**

Paralegal Studies

ACCOUNTING AND LEGAL STUDIES DEPARTMENT

DIVISION OF BUSINESS, COMPUTER SCIENCE AND ENGINEERING TECHNOLOGIES (BCSET)

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

Paralegals are trained specialists who, under the supervision of an attorney, perform a wide variety of legal tasks. These tasks may include legal research, law office management and preparation of legal documents. Only an attorney may provide legal services directly to the public. Students can earn the Associate in Applied Science which prepares graduates for employment in law offices, corporate legal departments, legal services corporations, state government offices, title companies and federal and state courts. Students who have already earned an A.A., A.S., A.A.S., B.A. or B.S. degree can earn the certificate. Students with one of these degrees plus three years of full-time paralegal work experience can earn the certificate.

Can students who major in Paralegal Studies transfer to a four-year college or university?

Articulation agreements with public and private institutions offer students who earn the A.A.S. degree the opportunity to transfer all of their coursework to the four-year institution. Students in specialized programs, or who earn an A.A.S. degree should discuss the transfer process with an advisor.

Are there any requirements that must be satisfied before taking courses in the major?

Students must either have a high school diploma or have passed an equivalency examination. Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the college's placement test or completion of the appropriate course.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

What are the objectives of this program?

1. Provide a rigorous, flexible program for the quality education of the occupationally competent paralegal.
2. Provide a paralegal education program that leads to the opportunity for employment of its graduates by a wide range of employers.
3. Provide paralegals with a well-rounded, balanced education founded on a beneficial mix of general education, theory, and practical courses, stressing understanding and reasoning rather than rote learning of facts.
4. Support the general principle of ethical legal practice, professional responsibility and the prohibitions against the unauthorized practice of law by non-lawyers.
5. Provide an educational program that is responsive to the needs of the State of New Jersey and contributes to the advancement of legal professionals.
6. Provide a program that instills respect for the legal profession and its foundations, institutions, and quest for justice.
7. Maintain equality of opportunity in the educational program without discrimination or segregation on the grounds of race, color, religion, national origin or sex. The program's overall objective is to provide quality education for paralegals so that they might assist the legal profession in rendering more personal, economical services to a greater number of persons.

How are these objectives met?

1. Through flexible curriculum planning which stresses a balance among General Education courses, law related courses, legal specialty courses, and electives.
2. Through continual assessment of the need for the program as evidenced by the legal profession's response to regular surveys and the ability of the program to place graduates.
3. By keeping the enrollment of the program to a size that will ensure a good student-teacher ratio and give graduates a good chance for paralegal employment. This is determined in the same method as number 2 above.

When students complete the program, what skills will they have?

1. Use the law library, including encyclopedias, reporter systems, digests, and practice manuals, including updating sources; utilize computer-assisted research including WESTLAW, reporter systems, statutes, administrative codes, updating sources and extended databases.
2. Understand and use rules governing courts and basic litigation procedures including telephone technique, client interviews, complaints, interrogatories, and motions.
3. Use forms and filing procedures relevant to typical legal proceedings.
4. Use forms and filing procedures in real and personal property transactions, including Real Estate Settlement Procedures Act.

NOTE: For students matriculating in this program, degree credit will not ordinarily be given for any course designated PLS which was completed more than six years prior to completion of the degree program.

Questions?

Contact: Professor Richard Ellison, department chair, or Professor Jean Volk, assistant chair, at 732.906.2576.

PARALEGAL STUDIES

Associate in Applied Science (A.A.S.) Degree - PL.AAS

Below are required courses and recommended course groupings and sequences for program completion. Courses may have prerequisites and corequisite requirements. Check course descriptions for details.

Courses		Credits	Requisites / Comments
Semester I			
BUS 107	Computer Applications for Business	3	
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
PLS 100	Introduction to the Paralegal Profession	2	
PLS 101	Legal Research	3	Prerequisite(s) or corequisite(s): ENG 121 & PLS 100
PLS 113	Legal Writing	2	Prerequisite(s) or corequisite(s): ENG 121, PLS 100 and PLS 101
___ ___	General Education Social Sciences Elective (GE SS)	3	
Semester II			
PLS 121	Advanced Legal Research	2	Prerequisite(s): PLS 100, PLS 101, PLS 113 and BUS 107
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
PLS 104	Property Transactions	4	PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121
PLS 110	Litigation Procedure	4	PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121
PLS 111	Contracts & the Uniform Commercial Code	3	PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121
PLS 123-IS	Advanced Legal Writing	2	PLS 100, PLS 101, PLS 113
Semester III			
PLS 108	Torts	3	PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121
PLS 112	Business Organizations and Government Regulation	3	PLS 100, PLS 101, PLS 111, PLS 113 and PLS 121
___ ___	Paralegal Electives	3	
	Choose one of the following courses required - 3 credits each:		
	PLS 105 Family Law		PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121
	PLS 106 Wills and Estate Administration		Prerequisite(s): PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121
	PLS 107 Law Office Management		Prerequisite(s): PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121
	PLS 109 Criminal Law and Procedure		Prerequisite(s): PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121
	PLS 208 Paralegal Field Experience		Prerequisite(s): PLS 100, PLS 101, PLS 110, PLS 113, PLS 121, and PLS 104 or PLS 108 or PLS 109 and permission of the program director.
SPE 121	Fundamentals of Public Speaking	3	
___ ___	Physical/Health Education Elective	1-3	
___ ___	Mathematics Elective	3-4	BUS 115 will satisfy the math requirements. Students considering transfer to a baccalaureate program should consult an academic advisor as to other math choices.
Semester IV			
ECO 201	Economics I	3	A passing score on the algebra portion on the college's placement test or MAT 013.
PLS 280	Senior Seminar for Paralegals	3	PLS 100, PLS 101, PLS 104, PLS 108, PLS 110, PLS 111, PLS 112, PLS 113, PLS 121. Prerequisite(s) or corequisite(s): PLS 121
___ ___	Paralegal Electives		
	Choose one of the following courses required - 3 credits each:		
	PLS 105 Family Law		PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121
	PLS 106 Wills and Estate Administration		Prerequisite(s): PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121
	PLS 107 Law Office Management		Prerequisite(s): PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121
	PLS 109 Criminal Law and Procedure		Prerequisite(s): PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121
	PLS 208 Paralegal Field Experience		Prerequisite(s): PLS 100, PLS 101, PLS 110, PLS 113, PLS 121, and PLS 104 or PLS 108 or PLS 109 and permission of the program director.
___ ___	General Education Humanities Elective (GE HUM)	3	
___ ___	General Education Science Elective (GE MST)	3-4	

Total Credits: 65-69

PARALEGAL STUDIES CERTIFICATE - PLC.CER

The Paralegal Studies Certificate is designed for the person who already has a college degree - Associate's, Bachelor's or higher. The Program is approved by the American Bar Association and the College is a member of the American Association for Paralegal Education.

Courses		Credits	Requisites / Comments
Semester I			
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
ENG 122 OR ENG 125	English Composition II English Composition II: Writing About Literature	3	A grade of "C" or better in ENG 121
PLS 100	Introduction to the Paralegal Profession	2	
PLS 101	Legal Research	3	Prerequisite(s) or corequisite(s): ENG 121 (or waiver) and PLS 100
PLS 113	Legal Writing	2	Prerequisite(s) or corequisite(s): ENG 121 (or waiver), PLS 100 and PLS 101
PLS 104	Property Transactions	4	Prerequisite(s): PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121 and PLS 123-IS
PLS 108	Torts	3	Prerequisite(s): PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121 and PLS 123-IS
PLS 110	Litigation Procedure	4	Prerequisite(s): PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121 and PLS 123-IS
PLS 121	Advanced Legal Research	2	Prerequisite(s): PLS 100, PLS 101, PLS 113
PLS 123-IS	Advance Legal Writing	2	Prerequisite(s): PLS 100, PLS 101, PLS 113
PLS ___	Elective (see below)	3	

Total Credits: 31**

PARALEGAL ELECTIVES

Select one of the following electives - students may choose to take more than one elective.

Courses		Credits	Requisites / Comments
PLS 111	Contract and the Uniform Commercial Code	3	Prerequisite(s): PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121 and PLS 123-IS
PLS 112	Business Organizations and Government Regulations	3	Prerequisite(s): PLS 100, PLS 101, PLS 113, PLS 111 Prerequisite(s) or corequisite(s): PLS 121 and PLS 123-IS
PLS 105	Family Law	3	Prerequisite(s): PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121 and PLS 123-IS
PLS 106	Wills and Estate Administration	3	Prerequisite(s): PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121 and PLS 123-IS
PLS 107	Law Office Management		Prerequisite(s): PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121 and PLS 123-IS
PLS 109	Criminal Law and Procedure	3	Prerequisite(s): PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121 and PLS 123-IS

* Holders of A.S. and A.A.S. degrees must show that they have taken 18 credits of general education courses. Holders of A.A. degrees are presumed to have satisfied the general education requirement.
** For students who are granted transfer credits, total will be reduced

NOTE: Not all PLS courses are offered every semester, both day and evening. Please call the department chairperson at 732.906.2576 to discuss course offerings for future semesters.

PARALEGAL STUDIES CERTIFICATE OF ACHIEVEMENT - PLT.COA

The Paralegal Studies Certificate of Achievement is designed for the person who already has an Associate's, Bachelor's degree or higher and three years full time (or part time equivalent) work experience as a paralegal. The Program is approved by the American Bar Association and the college is a member of the American Association for Paralegal Education.

**Holders of A.S. and A.A.S. degrees must show that they have taken 18 credits of general education courses. Holders of A.A. degrees are presumed to have satisfied the general education requirement.*

Courses		Credits	Requisites/Comment
PLS 100	Introduction to the Paralegal Profession	2	
PLS 101	Legal Research	3	Prerequisite(s) or corequisite(s): ENG 121 and PLS 100
PLS 113	Legal Writing	2	Prerequisite(s) or corequisite(s): ENG 121, PLS 100 and PLS 101
PLS 123-IS	Advance Legal Writing	2	PLS 100, PLS 101, PLS 113
PLS 121	Advanced Legal Research	2	PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121
PLS ___	Elective (see below)	6-8	

Total Credits: 17-19

PARALEGAL ELECTIVES

Select two of the following electives - students may choose to take more than two electives.

Courses		Credits	Requisites/Comments
PLS 104	Property Transactions	4	PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121 and PLS 123-IS
PLS 105	Family Law	3	PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121 and PLS 123-IS
PLS 106	Wills and Estate Administration	3	PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121 and PLS 123-IS
PLS 107	Law Office Management	3	PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121 and PLS 123-IS
PLS 108	Torts	3	PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121 and PLS 123-IS
PLS 109	Criminal Law and Procedure	3	PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121 and PLS 123-IS
PLS 110	Litigation Procedure	4	PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121 and PLS 123-IS
PLS 111	Contracts & the Uniform Commercial Code	3	PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121 and PLS 123-IS
PLS 112	Business Organizations and Government Regulations	3	PLS 100, PLS 101, PLS 111, PLS 113 Prerequisite(s) or corequisite(s): PLS 121 and PLS 123-IS

Contact Name: Professor Richard Ellison
Contact Phone: 732.906.2576
Contact Email: **REllison@middlesexcc.edu**
Department web: **http://www.middlesexcc.edu/departments/accounting**

Pharmacy Assistant

BIOLOGY DEPARTMENT

DIVISION OF SCIENCE, MATHEMATICS AND HEALTH TECHNOLOGIES (SCMHT)

Certificate

As a pharmacy assistant, a graduate can assist in various technical activities in a pharmacy under the supervision of a licensed pharmacist. They maintain patient records; set-up, package and label medication doses; fill and dispense routine orders for stock supplies in patient care areas; maintain drug supply inventories; and mix drugs with injectable fluids.

Can students who receive the Pharmacy Assistant Certificate transfer to a four-year college or university?

Many four-year colleges and universities will apply some of the courses taken toward a bachelor's degree in science or pharmacy. See department chair for specific details. Students specifically seeking to major in pharmacy should consider Chemistry Option - Science Transfer.

Are there any requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the college's placement test or completion of the appropriate course. Students must also have one year of high school laboratory chemistry with a grade of "C" or better.

How long will it take to complete this certificate?

Once students complete developmental coursework (if needed) can complete the certificate in one year. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

Contact: Dr. Trace Gerow, department chairperson, at 732.906.2592

PHARMACY ASSISTANT TECHNOLOGY CERTIFICATE - PHA.CER

Below are required courses and recommended course groupings and sequences for program completion. Courses may have prerequisites and corequisite requirements. Check course descriptions for details.

Courses		Credits	Requisites/Comments
Semester I			
BIO 106	Human Biology, Biomedical Issues and Society	4	Appropriate score on the college's placement test or MAT 013 or MAT 013A/MAT 013B and one year high school laboratory science or a 3 credit college level science course with a grade of "C" or better.
CHM 107	Principles of Chemistry	4	One year of high school laboratory chemistry or CHM 010. Students may substitute CHM 117 or CHM 123.
CSC 107	Computers in Health Technologies	1	Students may substitute a higher level computer science course.
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
MAT 107	Mathematics I	3	Appropriate score on the college placement test, MAT 013 or MAT 013A/MAT 013B or departmental approval. Students may substitute MAT 129-MAT 131 for MAT 107-MAT 108.
Semester II			
ENG 122 OR	English Composition II	3	A grade of "C" or better in ENG 121
ENG 125	English Composition II: Writing About Literature		
HED 150	Contemporary Health Issues	3	
HIS 130	Health Care and Medicine in the Western World	3	
MAT 108	Mathematics II	3	MAT 107
PHA 101	Introduction to Pharmacy	4	CHM 107 and appropriate score on the college's placement test or MAT 013. Students may substitute MAT 013A plus MAT 013B.
PSY 123	Introduction to Psychology	3	
	Total Credits:	***35***	

Contact Name: Dr. Trace Gerow
Contact Phone: 732.906.2592
Contact Email: **TGerow@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/academi/bio**

Physics

CHEMISTRY/PHYSICS DEPARTMENT

DIVISION OF SCIENCE, MATHEMATICS AND HEALTH TECHNOLOGIES (SCMHT)

Associate in Science (A.S.) Degree

This program parallels the first two years of baccalaureate degree programs in physics related fields. The major prepares graduates to transfer to a four-year college or university to pursue studies in physics, applied physics, computational physics, astronomy, astrophysics, geology, meteorology, material sciences, and other related fields.

What will students learn if they study Science Transfer?

Students concentrate on the theoretical and applied sciences, and mathematics. This prepares them to meet the challenges of advanced study in professional careers.

Are there any requirements that must be satisfied before taking courses in the major?

Students must have a grade of "C" or better in high school algebra II, geometry, advanced algebra and trigonometry, laboratory chemistry and laboratory physics. They must also pass the college's placement test.

Can students transfer to a four-year college or university?

The Statewide Transfer Agreement for New Jersey ensures that students who earn an A.A. or A.S. degree at a community college will have those credits fully transferable to a New Jersey public four-year institution, will have completed half of the credits required for a basic four-year degree and will have completed all of the lower division general education requirements. In addition, articulation agreements with private institutions may provide similar transfer provisions. Students should discuss the transfer process with an advisor.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

Contact: Dr. Diane Trainor, department chair, at 732.906.2587 or **DTrainor@middlesexcc.edu**.

PHYSICS - SCIENCE TRANSFER

Associate in Science (A.S.) Degree - PHY.AS

Below are required courses and recommended course groupings and sequences for program completion.

Courses		Credits	Requisites/Comments
Semester I			
CHM 123	General Chemistry I	4	MAT 014 or appropriate score on the college's placement test and one year of high school chemistry or CHM 010.
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
MAT 131	Analytical Geometry and Calculus I	4	MAT 129, or MAT 129A/MAT 129B, or appropriate score on the college placement test and/or satisfactory score on the diagnostic examination, or departmental approval.
___ ___	General Education Social Sciences Elective (GE SS)	3	
___ ___	Physical/Health Education Elective	1-3	
Semester II			
CHM 124	General Chemistry II	4	CHM 123
MAT 132	Analytical Geometry and Calculus II	4	MAT 131, MAT 131A/MAT 131B, or equivalent
PHY 131	Analytical Physics I	4	One year of high school laboratory physics, MAT 131 or equivalent.
___ ___	General Education Social Sciences Elective (GE SS)	3	
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
Semester III			
MAT 210	Linear Algebra	4	MAT 132
MAT 233	Analytical Geometry and Calculus III	4	MAT 132 or equivalent
PHY 132	Analytical Physics II	4	PHY 131 MAT 132 or equivalent
___ ___	General Education Humanities Elective (GE HUM)	3	
Semester IV			
MAT 234	Differential Equations	4	MAT 233 or approval of department chairperson of Mathematics
PHY 231	Analytical Physics III	4	PHY 132, MAT 132
___ ___	Computer Science Elective	3-4	CSC 105 or higher
___ ___	General Education Humanities Elective (GE HUM)	3	

Total Credits: 62-65

Contact Name: Dr. Diane Trainor
Contact Phone: 732.906.2587
Contact Email: **DTrainor@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/academi/chm**

Process Technology

CHEMISTRY/PHYSICS DEPARTMENT

DIVISION OF SCIENCE, MATHEMATICS AND HEALTH TECHNOLOGIES (SCMHT)

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

This major is a job-oriented program, preparing students for career opportunities in the oil, gas, chemical, and pharmaceutical industries as a process technician. With experience, They may find positions in instrumentation, control room operations, and supervision.

What will students learn if they study Process Technology?

They learn how to monitor and control mechanical, physical and/or chemical changes throughout many processes to produce a final product made from raw materials. Process technicians are responsible for start up and shutdown of equipment, troubleshooting equipment, analyzing, evaluating and communicating data, and maintaining a safe work environment.

Are there any requirements that must be satisfied before taking courses in my major?

Algebra I is a prerequisite for all majors, Algebra I competency may be verified with a passing score on the college's placement test or completion of the appropriate course.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

Contact: Dr. Diane Trainor, department chair, at 732.906.2587 or **DTrainor@middlesexcc.edu**.

PROCESS TECHNOLOGY

Associate in Applied Science (A.A.S.) Degree - PRT.AAS

Below are required courses and recommended course groupings and sequences for program completion.

Courses		Credits	Requisites/Comments
Semester I			
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
CHM 117	Chemistry I	4	Appropriate score on the college's placement test of MAT 013 and one year of high school laboratory science, CHM 010 or departmental approval. Students may substitute CHM 123-CHM 124 for CHM 117-CHM 118 if they have completed a high school chemistry laboratory course.
MAT 107	Mathematics I	3	Appropriate score on the college's placement test, MAT 013 or MAT 013A/MAT 013B or departmental approval. Students may substitute MAT 123-MAT 124 or MAT 129-MAT 131 for MAT 107-MAT 108.
CSC 105	Computer Applications and Systems	3	
CPT 100	Introduction to Chemical Process Technology	3	
Semester II			
ENG 122 OR ENG 125	English Composition II English Composition II: Writing About Literature	3	A grade of "C" or better in ENG 121
MAT 108	Mathematics II	3	MAT 107
ENV 220	Principles of Occupational Safety/Health	4	CHM 118 or equivalent
CPT 205	Process Technology Instrumentation	3	CHM 117, CPT 100
___ ___	Physical/Health Education Elective	1-3	
___ ___	General Education Social Sciences Elective (GE SS)	3	
Semester III			
SPE 121	Fundamentals of Public Speaking	3	
CPT 206	Process Technology Equipment	4	CHM 117, CPT 100
CPT 210	Process Technology Systems	4	CPT 100
PHY 101	Principle of Physics	4	MAT 107 or equivalent
___ ___	Technical Electives:	3-4	
	CHM 118 Chemistry II	4	CHM 117 A continuation of CHM 117
	ENV 223 Environmental Regulations	3	
	UTI 109 Introduction to Gas Distribution	3	UTI 102
Semester IV			
CPT 212	Process Technology Operations	4	CPT 100
CPT 214	Process Technology Quality	3	CPT 100
CPT 226	Process Technology Co-Op Ed	3	CPT 100, CPT 205
___ ___	Technical Electives:	3-4	
	CHM 118 Chemistry II	4	CHM 117 A continuation of CHM 117
	ENV 223 Environmental Regulations	3	
	UTI 109 Introduction to Gas Distribution	3	UTI 102
SCI 104	Technical Communication	1	
	Total Credits:	***65-69***	

Contact Name: Dr. Diane Trainor
Contact Phone: 732.906.2587
Contact Email: **DTrainor@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/academi/chm**

Psychosocial Rehabilitation and Treatment

JOINT PROGRAM WITH THE UNIVERSITY OF MEDICINE AND DENTISTRY OF NEW JERSEY

PSYCHIATRIC REHABILITATION AND BEHAVIORAL HEALTH CARE DEPARTMENT

DIVISION OF SCIENCE, MATHEMATICS AND HEALTH TECHNOLOGIES (SCMHT)

Associate in Science (A.S.) Degree

This is an exciting and innovative field in which service providers assist people in obtaining the skills, support and resources they will need to achieve success and satisfaction in their living, learning, working and social environments. The overall goals of this field are promotion of recovery, community integration, and improved quality of life for people coping with psychiatric disabilities. Graduates can transfer all of their credits to the UMDNJ Bachelor of Science Degree Program in Psychiatric Rehabilitation & Psychology.

What will students lean if they study Psychosocial Rehabilitation and Treatment?

Courses focus on imparting the knowledge, practical skills and attitudes needed to provide support and services to people with psychiatric disabilities in a variety of community settings that provide social, vocational, residential and case management services.

Are there any requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency must be satisfied with a passing score on the college's placement test or completion of the appropriate course. Students must have a "C" or better in one year of a high school laboratory science. As a result of the student's performance on the college's placement test, he or she may need developmental coursework. All developmental coursework must be completed before they will be considered for admission to the program. PSR majors need to complete 18 credits of general education and Introduction to Psychosocial Rehabilitation (PSR 101) before beginning the professional phase of the program (PSR 102 and beyond).

Can students transfer to a four-year college or university?

The Statewide Transfer Agreement for New Jersey ensures that students who earn an A.A. or A.S. degree at a community college will have those credits fully transferable to a New Jersey public four-year institution, will have completed half of the credits required for a basic four-year degree and will have completed all of the lower division general education requirements. In addition, articulation agreements with private institutions may provide similar transfer provisions. Students should discuss the transfer process with an advisor.

How long will it take to complete this degree?

The degree can be completed in five semesters. Part time study is also an option.

Are there any special requirements once the student is admitted to this major?

Students must meet the academic standards of progress outlined on the next page to stay in the program. They must meet with the program director each semester prior to registration.

Questions?

Contact: Professor Nora Barrett, program director, at 732.906.4177 or **barretnm@umdnj.edu**

PSYCHOSOCIAL REHABILITATION AND TREATMENT

Associate in Science (A.S.) Degree - PSR.AS

Below are required courses and recommended course groupings and sequences for program completion. Courses may have prerequisites and corequisite requirements. Check course descriptions for details.

Courses		Credits	Requisites / Comments
Semester I			
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
CSC 107	Computers in Health Technologies	1	
PSY 123	Introduction to Psychology	3	
BIO 105	Heredity, Evolution and Society	4	Appropriate score on the college's placement test or MAT 013 and one year high school laboratory science or a 3 credit college-level science course with a grade of "C" or better.
PHI 123	Ethics	3	
___ ___	Physical/Health Education Elective	1-3	
Semester II			
ENG 122 OR ENG 125	English Composition II OR English Composition II: Writing About Literature	3	A grade of "C" or better in ENG 121
SOC 121	Introduction to Sociology	3	
PSY 235	Abnormal Psychology	3	PSY 123
PSR 101	Introduction to Psychosocial Rehabilitation	3	
BIO 106	Human Biology, Biomedical Issues and Society	4	Appropriate score on the college's placement test or MAT 013 and one year high school laboratory science or a 3 credit college-level science course with a grade of "C" or better.
___ ___	General Education Humanities Elective (GE HUM)	3	

NOTE: A minimum of 18 General Education credits and PSR 101 must be taken before entering the professional phase of the program (i.e. PSR 102 and beyond). Students in the professional phase of the program register through UMDNJ and pay the current UMDNJ undergraduate tuition rate and fees. Most PSR courses are offered on the UMDNJ Scotch Plains Campus.

Semester III			
Spring			
PSR 102	Communication Techniques	3	PSR 101
PSR 103	Group Dynamics	3	PSR 101
PSR 104	Clinical Principles in Psychosocial Rehabilitation	3	PSR 101
Semester IV			
Fall			
PSR 207	Community Resource Management	3	Corequisite(s): PSR 210
PSR 210	Clinical Practicum in PSR I	6	PSR 101, PSR 102, PSR 103, PSR 104
Semester V			
Spring			
PSR 209	Emerging Topics in Psychosocial Rehabilitation	3	Corequisite(s): PSR 211
PSR 211	Clinical Practicum in PSR II	6	PSR 210

Total Credits: 61-63

Standards of Progress:

1. Must achieve a "C" or better in all PSR courses
2. May retake a PSR course only once and obtain a passing grade (i.e. "C" or better)

Contact Name: Nora Barrett
Contact Phone: 732.906.4177 or 908.889.2431
Contact Email: **barretnm@umdnj.edu**

Radiography Education

RADIOGRAPHY EDUCATION

DIVISION OF SCIENCE, MATHEMATICS AND HEALTH TECHNOLOGIES (SCMHT)

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

The program in Radiography is fully accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT) and the NJ DEP Radiologic Technology Board of Examiners.

Why major in Radiography Education?

There is a national demand for individuals trained in this allied health discipline. Positions are available in hospitals, industry, with private physicians and chiropractors, and clinics. Related jobs can be found in x-ray equipment, manufacturing firms and medical supply companies. Graduates qualify to take the American Registry of Radiologic Technologists Board examination for National Registration as well as New Jersey State Licensure.

What do students learn by studying Radiography Education?

Extensive study in radiographic principles provides students with comprehensive theoretical and practical knowledge and skills. Instruction takes place in well-equipped classrooms, small group study areas and a laboratory area containing three energized radiographic units with an associated film processing room. The laboratory is also equipped to provide experience in computed radiography, Direct Digital Radiography (DDR) and Patient Archive and Communication Systems (PACS). Clinical practical experience is provided by rotations at affiliated hospitals providing the "hands-on" experience necessary to perform the tasks of an entry-level radiographer. The curriculum also includes the general education and science courses required for the Associate in Applied Science degree.

Are there any requirements that must be satisfied before taking courses in the major?

Students must have a "C" or better in high school laboratory biology and laboratory chemistry. Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the college's placement test or completion of the appropriate course. As a result the student's performance on the college's placement test, he or she may need developmental coursework. All developmental coursework must be completed before the student will be considered for admission to the program. The students are also required to complete a college level freshman mathematics course or higher as part of the admission procedure.

Can a student transfer to a four-year college or university?

Articulation agreements with public and private institutions offer students who earn the A.A.S. degree the opportunity to transfer all of their coursework to the four-year institution. Students in specialized programs, or who earn an A.A.S. degree should discuss the transfer process with an advisor.

How long will it take to complete this degree?

In accordance with NJ State law, this program runs for a minimum of 24 consecutive months. Students must register for major coursework in the summer session of both years. Students can complete the degree in a two-year period.

Once the student is admitted to this major, are there any special requirements?

Students must meet the academic standards of progress outlined to progress through the curriculum. Students are also required to have completed CPR for health care providers, a criminal background check, a five panel non-DOT drug screening and complete the health physical and required immunizations prior to entering the clinical practice phase of the program.

Questions?

Contact: the Radiography Education Department at 732.906.2583.

RADIOGRAPHY EDUCATION - CAREER TRACK

Associate in Applied Science (A.A.S.) Degree - RADC.AAS

Below are required courses and recommended course groupings and sequences for program completion. Courses may have prerequisites and corequisite requirements. Check course descriptions for details.

Courses		Credits	Requisites/Comments
Semester I			
RAD 128	Basic Medical Principles	4	
RAD 141	Radiographic Positioning, Anatomy & Pathology I	2	
RAD 142	Radiographic Positioning Laboratory I	1	
RAD 171	Radiographic Imaging and Science I	4	
RAD 190	Clinical Orientation	1	Prerequisite(s): CPR certification for health care professionals, criminal background check, five panel non-DOT drug screening and have completed the health physical and required immunizations.
BIO 131	Human Structure and Function	4	Prerequisite(s): One year of high school laboratory biology or BIO 010 and one year of high school laboratory chemistry or CHM 010 and appropriate score on the college's placement test or MAT 013.
___ ___	General Education Social Sciences Elective (GE SS)	3	
Semester II			
RAD 139	Radiation Protection and Biology	2	Prerequisite(s): RAD 128, RAD 141, RAD 142, RAD 171, RAD 190 Corequisite(s): RAD 143, RAD 144, RAD 172, RAD 210
RAD 143	Radiographic Positioning, Anatomy & Pathology II	2	Prerequisite(s): RAD 128, RAD 141, RAD 142, RAD 171, RAD 190 Corequisite(s): RAD 139, RAD 144, RAD 172, RAD 210
RAD 144	Radiographic Positioning Laboratory II	1	Prerequisite(s): RAD 128, RAD 141, RAD 142, RAD 171, RAD 190 Corequisite(s): RAD 139, RAD 144, RAD 172, RAD 210
RAD 172	Radiographic Imaging and Science II	2	Prerequisite(s): RAD 128, RAD 141, RAD 142, RAD 171, RAD 190 Corequisite(s): RAD 139, RAD 143, RAD 144, RAD 210
RAD 210	Clinical Practicum I	2	Prerequisite(s): RAD 128, RAD 141, RAD 142, RAD 171, RAD 190 Corequisite(s): RAD 139, RAD 143, RAD 144, RAD 172
___ ___	General Education Mathematics Elective (GE MST)	3	
___ ___	General Education Elective	3	
Summer Session I			
RAD 145	Radiographic Positioning, Anatomy & Pathology III	3	Prerequisite(s): RAD 139, RAD 143, RAD 144, RAD 172, RAD 210 Corequisite(s): RAD 146
RAD 146	Radiographic Positioning Laboratory III	1	Prerequisite(s): RAD 139, RAD 143, RAD 144, RAD 172, RAD 210 Corequisite(s): RAD 145
Summer Session II			
RAD 220	Clinical Practicum II	2	Prerequisite(s): RAD 145, RAD 146
Semester III			
RAD 247	Radiographic Positioning, Anatomy & Pathology IV	2	Prerequisite(s): RAD 145, RAD 146, RAD 220 Corequisite(s): RAD 230, RAD 248, RAD 273
RAD 248	Radiographic Positioning Laboratory IV	1	Prerequisite(s): RAD 145, RAD 146, RAD 220 Corequisite(s): RAD 230, RAD 247, RAD 273
RAD 275	Radiographic Physics and Equipment Maintenance	3	Prerequisite(s): RAD 145, RAD 146, RAD 172, RAD 220 Corequisite(s): RAD 230, RAD 247, RAD 248
RAD 230	Clinical Practicum III	2	Prerequisite(s): RAD 220 Corequisite(s): RAD 247, RAD 248, RAD 273
ENG 121	English I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
___ ___	General Education Humanities Elective (GE HUM)	3	

Courses		Credits	Requisites / Comments
Semester IV			
RAD 250	Clinical Practicum IV	3	Prerequisite(s): RAD 230, RAD 247, RAD 248, RAD 273 Corequisite(s): RAD 256, RAD 285
RAD 256	Radiographic Seminar I	2	Prerequisite(s): RAD 230, RAD 247, RAD 248, RAD 273 Corequisite(s): RAD 250, RAD 285
RAD 285	Advanced Radiographic Imaging	2	Prerequisite(s): RAD 230, RAD 247, RAD 248, RAD 273 Corequisite(s): RAD 250, RAD 256
ENG 122 OR ENG 125	English Composition II English Composition II: Writing About Literature	3	A grade of "C" or better in ENG 121
___ ___	Physical/Health Education Elective	1-3	
CSC 107	Computers in Health Technologies	1	
Summer Session I			
RAD 260	Clinical Practicum V	3	Prerequisite(s): RAD 250, RAD 256, RAD 285
Summer Session II			
RAD 257	Radiographic Seminar II	2	Prerequisite(s): RAD 256, RAD 260
	Total Credits:	***71-73***	

Standards of Progress:

1. Maintain a cumulative grade point average of 2.0.
2. Must achieve a "C" grade or better in all Radiography courses in order to progress through the curriculum.
3. Must achieve a "C" grade or better in all science courses to satisfy degree requirements.
4. Must complete the Radiography Education program in no fewer than two and no more than five consecutive years from the point of admission to the full-time program track. Students who do not complete the major Radiography course under these conditions may not continue in the program.

RADIOGRAPHY EDUCATION – TRANSFER TRACK

Associate in Applied Science (A.A.S.) Degree - RADT.AAS

Below are required courses and recommended course groupings and sequences for program completion. Courses may have prerequisites and corequisite requirements. Check course descriptions for details.

Courses		Credits	Requisites / Comments
Semester I			
RAD 128	Basic Medical Principles	4	
RAD 141	Radiographic Positioning, Anatomy & Pathology I	2	
RAD 142	Radiographic Positioning Laboratory I	1	
RAD 171	Radiographic Imaging & Science I	4	
RAD 190	Clinical Orientation	1	Prerequisite(s): CPR certification for health care professionals, criminal background check, five panel non-DOT drug screening and have completed the health physical and required immunizations.
BIO 111	Human Anatomy & Physiology I	4	Prerequisite(s): One year of high school laboratory biology or BIO 010 and one year of high school laboratory chemistry or CHM 010 and appropriate score on the college's placement test or MAT 013.
___ ___	General Education Social Science Elective (GE SS)	3	
Semester II			
RAD 139	Radiation Protection and Biology	2	Prerequisite(s): RAD 128, RAD 141, RAD 142, RAD 171, RAD 190 Corequisite(s): RAD 143, RAD 144, RAD 172, RAD 210
RAD 143	Radiographic Positioning, Anatomy & Pathology II	2	Prerequisite(s): RAD 128, RAD 141, RAD 142, RAD 171, RAD 190 Corequisite(s): RAD 139, RAD 144, RAD 172, RAD 210
RAD 144	Radiographic Positioning Laboratory II	1	Prerequisite(s): RAD 128, RAD 141, RAD 142, RAD 171, RAD 190 Corequisite(s): RAD 139, RAD 144, RAD 172, RAD 210
RAD 172	Radiographic Imaging & Science II	2	Prerequisite(s): RAD 128, RAD 141, RAD 142, RAD 171, RAD 190 Corequisite(s): RAD 139, RAD 143, RAD 144, RAD 210

Courses		Credits	Requisites / Comment
RAD 210	Clinical Practicum I	2	Prerequisite(s): RAD 128, RAD 141, RAD 142, RAD 171, RAD 190 Corequisite(s): RAD 139, RAD 143, RAD 144, RAD 172
BIO 112	Human Anatomy & Physiology II	4	Prerequisite(s): BIO 111 A continuation of BIO 111. A study of the structure and function of the body is continued by examining the endocrine, reproductive, circulatory, digestive, respiratory and excretory systems.
Summer Session I			
RAD 145	Radiographic Positioning, Anatomy & Pathology III	3	Prerequisite(s): RAD 139, RAD 143, RAD 144, RAD 172, RAD 210 Corequisite(s): RAD 146
RAD 146	Radiographic Positioning Laboratory III	1	Prerequisite(s): RAD 139, RAD 143, RAD 144, RAD 172, RAD 210 Corequisite(s): RAD 145
Summer Session II			
RAD 220	Clinical Practicum II	2	Prerequisite(s): RAD 145, RAD 146
Semester III			
RAD 247	Radiographic Positioning, Anatomy & Pathology IV	2	Prerequisite(s): RAD 145, RAD 146, RAD 220 Corequisite(s): RAD 230, RAD 248, RAD 273
RAD 248	Radiographic Positioning Laboratory IV	1	Prerequisite(s): RAD 145, RAD 146, RAD 220 Corequisite(s): RAD 230, RAD 247, RAD 273
RAD 275	Radiographic Physics and Equipment Maintenance	3	Prerequisite(s): RAD 145, RAD 146, RAD 172, RAD 220 Corequisite(s): RAD 230, RAD 247, RAD 248
RAD 230	Clinical Practicum III	2	Prerequisite(s): RAD 220 Corequisite(s): RAD 247, RAD 248, RAD 273
ENG 121	English I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
___ ___	General Education Humanities Elective (GE HUM)	3	
___ ___	General Education Mathematics Elective (GE MST)	3	
Semester IV			
RAD 250	Clinical Practicum IV	3	Prerequisite(s): RAD 230, RAD 247, RAD 248, RAD 273 Corequisite(s): RAD 256, RAD 285
RAD 256	Radiographic Seminar I	2	Prerequisite(s): RAD 230, RAD 247, RAD 248, RAD 273 Corequisite(s): RAD 250, RAD 285
RAD 285	Advanced Radiographic Imaging	2	Prerequisite(s): RAD 230, RAD 247, RAD 248, RAD 273 Corequisite(s): RAD 250, RAD 256
CSC 107	Computers in Health Technologies	1	
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
___ ___	Physical/Health Education Elective	1-3	
Summer Session I			
RAD 260	Clinical Practicum V	3	Prerequisite(s): RAD 250, RAD 256, RAD 285
Summer Session I			
RAD 257	Radiographic Seminar II	2	Prerequisite(s): RAD 256, RAD 260
		Total Credits: 72-74	

Standards of Progress:

1. Maintain a cumulative grade point average of 2.0.
2. Must achieve a "C" grade or better in all Radiography courses in order to progress through the curriculum.
3. Must achieve a "C" grade or better in all science courses to satisfy degree requirements.
4. Must complete the Radiography Education program in no fewer than two and no more than five consecutive years from the point of admission to the full-time program track. Students who do not complete the major Radiography course under these conditions may not continue in the program.

Contact Name: Radiography Education Department
Contact Phone: 732.906.2583
Department Web: **http:/www.middlesexcc.edu/academi/rad**

Respiratory Care

RESPIRATORY CARE JOINT PROGRAM WITH THE UNIVERSITY OF MEDICINE AND DENTISTRY OF NEW JERSEY RESPIRATORY THERAPY DEPARTMENT

DIVISION OF SCIENCE, MATHEMATICS AND HEALTH TECHNOLOGIES (SCMHT)

Associate in Science (A.S.) Degree

A degree in Respiratory Care is for individuals who like to help people of all ages recover from serious illness and who enjoy working with high tech equipment. All major courses taught at UMDNJ in Newark.

What do students learn by studying Respiratory Care?

They learn the latest techniques used to diagnose, treat and prevent cardiopulmonary disorders among infants, children and adults. Students also learn the work skills needed to get and maintain a satisfying job in the fast-paced health care environment.

Are there any requirements that must be satisfied before taking classes in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the college's placement test or completion of the appropriate course. Students must also have a "C" or better in high school laboratory biology and laboratory chemistry and algebra II. As a result of the student's performance on the college's placement test, he or she may need developmental coursework. All developmental coursework must be completed before the student is considered for admission to the program.

Can a student transfer to a four-year college or university?

The Statewide Transfer Agreement for New Jersey ensures that students who earn an A.A. or A.S. degree at a community college will have those credits fully transferable to a New Jersey public four-year institution, will have completed half of the credits required for a basic four-year degree and will have completed all of the lower division general education requirements. In addition, articulation agreements with private institutions may provide similar transfer provisions. Students should discuss the transfer process with an advisor.

How long will it take to complete this degree?

Students can complete the degree in two years. They must register for the summer session at the end of their first year.

Are there any special requirements once the student is admitted to this major?

He or she must meet the academic standards of progress outlined on the next page to stay in the program.

Questions?

Contact: Professor Albert Heuer, program director, at 973.972.5503 or Dr. Reginald Luke, dean of Science, Mathematics and Health Technologies, at 732.906.2533.

RESPIRATORY CARE

Associate in Science (A.S.) Degree - RST.AS

Below are required courses and recommended course groupings and sequences for program completion. Courses may have prerequisites and corequisite requirements. Check course descriptions for details.

Courses		Credits	Requisites/Comments
Semester I			
BIO 111	Human Anatomy and Physiology I	4	One year of high school laboratory biology or BIO 010 and one year of high school laboratory chemistry or CHM 010. Also appropriate score on the college's placement test or MAT 013.
CHM 107	Principles of General, Organic & Biochemistry	4	One year of high school laboratory chemistry or CHM 010.
CSC 107	Computers in Health Technologies	1	
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
MAT 107	Mathematics I	3	Appropriate score on the college's placement test, MAT 013, MAT 013A/MAT 013B, or departmental approval.
___ ___	General Education Humanities Elective (GE HUM)	3	
Semester II			
BIO 112	Human Anatomy and Physiology II	4	BIO 111
BIO 211	Principles of Microbiology	4	One year of high school laboratory biology or BIO 010 and one year of high school laboratory chemistry or CHM 010. Also appropriate score on the college's placement test or MAT 013.
ENG 122 OR ENG 125	English Composition II OR English Composition II: Writing About Literature	3	A grade of "C" or better in ENG 121
PED/HED	Physical/Health Education Elective	1-3	
PSY 123	Introduction to Psychology	3	
___ ___	General Education Humanities Electives (GE HUM)	3	
___ ___	Two additional general education Social Sciences Electives (GE SS)	6	
Summer Session			
RST 100	Core Concepts in Respiratory Care	1	BIO 111 and acceptance into the Respiratory Care Program - Clinical Phase Corequisite(s): RST 102
RST 101	Fundamentals of Respiratory Care	4	Corequisite(s): RST 100, RST 102
RST 102	Clinical Practice I	1	Corequisite(s): RST 100, RST 101
RST 103	Applied Cardiopulmonary Pathophysiology I	2	
Semester III			
RST 203	Applied Cardiopulmonary Pathophysiology II	2	Prerequisite(s): RST 103
RST 207	Cardiopulmonary Pharmacology	2	Prerequisite(s): RST 103
RST 208	Principles of Ventilatory Support	4	Prerequisite(s): RST 101 Corequisite(s): RST 209
RST 209	Clinical Practice II	2	Prerequisite(s): RST 101, RST 102 Corequisite(s): RST 208
RST 210	Cardiopulmonary Evaluation	2	Prerequisite(s): RST 103
Semester IV			
RST 201	Patient Management in Critical Care	3	Prerequisite(s): RST 208 Corequisite(s): RST 211
RST 211	Pediatric/Neonatal Respiratory Care	3	Prerequisite(s): RST 208 Corequisite(s): RST 215
RST 212	Long-Term, Home and Rehabilitation Care	3	
RST 215	Clinical Practice III	3	Prerequisite(s): RST 208, RST 209
	Total Credits:	***74-76***	

Standards of Progress:

1. Maintenance of cumulative grade point average of 2.5.
2. Must achieve a "C" grade or better in all Respiratory Care and science courses in order to progress in the curriculum.
3. May have only one (1) unsatisfactory grade (i.e. grade less than "C") in any Respiratory Care or science course for the duration of the program.
4. May retake a Respiratory Care or science course only once and obtain a passing grade i.e. "C" or better).

NOTE: Currently, all Respiratory Care Courses (RST) are offered only at the UMDNJ campus in Newark. In order to continue to the clinical phase of the Respiratory Care Courses, student must have completed almost all the major science and General Education courses prior to the summer session. All RST courses are assessed the UMDNJ tuition and fee rates.

Contact Name: Dr. Albert Heuer, Program Director, or Dr. Reginald Luke, Dean
Contact Phone: 973.972.5503 (Dr. Heuer) or 732.906.2533 (Dr. Luke)
Contact Email: **heueraj@umdnj.edu or RLuke@middlesexcc.edu**
Department Web: **umdnj.edu** or **middlesexcc.edu**

Small Business Management/ Entrepreneurial Studies

BUSINESS ADMINISTRATION AND MANAGEMENT DEPARTMENT

DIVISION OF BUSINESS, COMPUTER SCIENCE AND ENGINEERING TECHNOLOGIES (BCSET)

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

Small Business Management/Entrepreneurial Studies is for people who intend to start, or who already operate a small business. This program can help students who have a skill or idea – and want to be their own boss – to realize their goal of running a successful business. The degree program incorporates General Education courses with the small business management curriculum. The certificate is designed for those with no prior college course work and includes English composition with the Small Business Management curriculum. The certificate of achievement program is geared toward people who already hold a college degree and intend to operate a small business.

Can students who major in Small Business Management/Entrepreneurial Studies transfer to a four-year college or university?

Articulation agreements with public and private institutions offer students who earn the A.A.S. degree the opportunity to transfer all of their coursework to the four-year institution. Students in specialized programs, or who earn an A.A.S. degree should discuss the transfer process with an advisor.

What will students learn if they study Small Business Management/Entrepreneurial Studies?

They will study the elements that are necessary for a thriving business: business plan, capital needs, marketing strategies, legal and tax issues, forms of ownership, employee management, new technologies, sales, marketing and new product development. They will acquire skills particular to entrepreneurs but transferable to the general business environment.

NOTE: Not all SBM courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.

Are there any requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Students may satisfy this requirement with a grade of "C" or better in high school Algebra I. Algebra I competency may be verified with a passing score on the college's placement test or by the completion of the appropriate course.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions. Some major courses in the Small Business Management program may only be offered in the evenings and not every semester.

Questions?

Contact: Professor Nancy Bailey, department chair, at 732.906.2594 or **bam@middlesexcc.edu**.

SMALL BUSINESS MANAGEMENT/ENTREPRENEURIAL STUDIES

Associate in Applied Science (A.A.S.) DEGREE - SBUS.AAS

Below are required courses and recommended course groupings and sequences for program completion. Courses may have prerequisites and corequisite requirements. Check course descriptions for details.

Courses		Credits	Requisites/Comments
Semester I			
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
BUS 101	Business Organization and Management	3	
BUS 115	Mathematics of Finance	3	Passing score on the college's placement test or MAT 013. Students with the appropriate academic prerequisites, in consultation with their academic advisor, should elect the appropriate mathematics course. MAT courses with the designation GE MST fulfill the general education elective.
BUS 107	Computer Applications for Business	3	
___ ___	General Education Social Sciences Elective (GE SS)	3	
Semester II			
ENG 122 OR ENG 125	English Composition II English Composition II: Writing About Literature	3	A grade of "C" or better in ENG 121
SBM 110	Accounting for Small Business	4	**Note:** Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
SBM 120	Small Business Management	3	**Note:** Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
SBM 130	Marketing And Sales For Small Business	3	**Note:** Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
SPE 121	Fundamentals of Public Speaking	3	
Semester III			
BUS 201	Business Law I	3	
SBM 210	Advertising and Promotion for Small Business	3	**Note:** Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
SBM 220	Leadership and Supervision	3	**Note:** Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
___ ___	Business Elective	3	Courses with MKT or MGT for which students have the appropriate preparation are recommended or see department chair.
___ ___	General Education Social Sciences Elective (GE SS)	3	
___ ___	Physical/Health Education Elective	1-3	
Semester IV			
SBM 230	Risk and Financial Management	3	**Note:** Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
SBM 240	Co-Op/Internship in Small Business	3	Senior status in SBM curriculum or written permission of department chairperson.
SBM 250	Seminar in Entrepreneurial Studies	3	BUS 101, SBM 110, SBM 120, SBM 130, SBM 210 or permission of department chairperson. **Note:** Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
___ ___	General Education Science Elective (GE MST)	3-4	Students may elect courses with a GE MST designation in BIO, CHM, PHY or SCI for which they have the appropriate academic preparation.
___ ___	General Education Elective	3	Any course designated as GE
		Total Credits: 62-65	

SMALL BUSINESS MANAGEMENT/ENTREPRENEURIAL STUDIES CERTIFICATE OF ACHIEVEMENT - SBUS.COA

Below are required courses for program completion. Courses may have prerequisite and corequisite requirements. Check course descriptions for details. Designed for the person with a college degree. Assumes basic skills and General Education (including math) requirements are satisfied.

Courses		Credits	Requisites/Comment
BUS 101	Business Organization and Management	3	
SBM 110	Accounting for Small Business	4	**Note:** Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
SBM 120	Small Business Management	3	**Note:** Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
SBM 130	Marketing and Sales for Small Business	3	**Note:** Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
SBM 210	Advertising and Promotion for Small Business	3	**Note:** Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
OR			
SBM 230	Risk And Financial Management		
SBM 250	Seminar in Entrepreneurial Studies	3	BUS 101, SBM 110, SBM 120, SBM 130, SBM 210 or permission of department chairperson. department chair at 732.906.2594 to discuss course offerings for future semesters.

Total Credits: 19

SMALL BUSINESS MANAGEMENT/ENTREPRENEURIAL STUDIES CERTIFICATE - SBUS.CER

Below are required courses for program completion. Courses may have prerequisite and corequisite requirements. Check course descriptions for details. Assumes Basic Skills and Math requirements are satisfied.

Courses		Credits	Requisites/Comment
BUS 101	Business Organization and Management	3	
BUS 107	Computer Applications for Business	3	
ENG 121	English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
ENG 122	English Composition II	3	A grade of "C" or better in ENG 121
OR			
ENG 125	English Composition II: Writing About Literature		
SBM 110	Accounting for Small Business	4	**Note:** Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
SBM 120	Small Business Management	3	**Note:** Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
SBM 130	Marketing and Sales for Small Business	3	**Note:** Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
SBM 210	Advertising and Promotion for Small Business	3	**Note:** Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
SBM 230	Risk and Financial Management	3	**Note:** Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
SBM 250	Seminar in Entrepreneurial Studies	3	BUS 101, SBM 110, SBM 120, SBM 130, SBM 210 or permission of department chairperson. **Note:** Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.

Total Credits: 31

Contact Name: Professor Nancy Bailey
Contact Phone: 732.906.2594
Contact Email: **bam@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/departments/bam**

Teacher Aide Certificate

PSYCHOLOGY AND EDUCATION DEPARTMENT

DIVISION OF BUSINESS, COMPUTER SCIENCE AND ENGINEERING TECHNOLOGIES (BCSET)

Certificate

This program prepares graduates to become teachers' aides in schools and child care facilities.

Can students who major in Teacher Aide use the credits they have earned toward a degree?

They can apply the credits earned toward the Associate in Applied Science Degree in Education Practitioner. (see p. XX)

What will students learn in the Teacher Aide program?

The program combines general education courses with practical experiences in teaching/learning settings.

Are there any special requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the college's placement test or completion of the appropriate course.

How long will it take to complete this certificate?

Students who do not need developmental coursework can complete the certificate in one year.

Questions?

Contact: Dr. Steven Barnhart, department chair, at 732.906.2590 **SBarnhart@middlesexcc.edu**, or Academic Advising at 732.906.2596 **Advisor@middlesexcc.edu**.

TEACHER AIDE CERTIFICATE - EDTA.CER

Below are required courses and recommended course groupings and sequences for program completion.

Courses		Credits	Requisites / Comments
Semester I			
ENG 121	English Composition I	3	Passing score on the college's placement test or a grade of "C" or better in ENG 010.
PSY 123	Introduction to Psychology	3	
PSY 226	Educational Psychology: Classroom Applications	3	PSY 123 or permission of chairperson. Students with education work experience must see chairperson for possibility of prerequisite waiver. PSY 226 is a necessary prerequisite for EDU 280 Education Field Experience.
EDU or HED	Education or Health Education Elective *(only choose one course)*	3	**Recommended:** HED 150 or HED 209, or one education elective, such as EDU 121, EDU 207, or EDU 210, etc. Check with chairperson for other possibilities.
EDU 208	Creative Activities for Young Children	3	
Semester II			
PSY 223	Child Psychology	3	PSY 123
MAT ___	Math Elective I	3-4	Appropriate score on the college's placement test for one of the following math courses: MAT 101, MAT 123, MAT 129, MAT 131, or any higher level math.
SOC 121	Introduction to Sociology	3	
ENG 212	Children's Literature	3	ENG 121
EDU 280	Education Field Experience	3	PSY 226, ENG 122 or 125 Students are required to work in an educational setting for 90 hours.

Total Credits: 30-31

Contact Name: Dr. Steven Barnhart
Contact Phone: 732.906.2590
Contact Email: **SBarnhart@middlesexcc.edu**
Department Web: **http://www.middlesexcc.edu/departments/psyedu**

Course Descriptions

Course descriptions are listed alphabetically by subject area. The three letters identify the subject area and are followed by three numbers that identify the course. The numbers in parentheses indicate the number of lecture and lab hours, respectively, scheduled per week in a typical 14-week semester. By adding the numbers, students can determine the number of contact hours required per week for each course. (NOTE: Courses meet for more hours per week during sessions shorter than 14 weeks, such as those held during the summer.)

The number of credits is used to calculate tuition and fees, to determine credit load and full-time/part-time status, and are the normal academic measure to monitor progress toward the requirements for a degree. Courses listed as "credit equivalent" do not count toward the degree requirements and are used solely for the calculation of charges. However, the courses do represent program requirements for many students based upon past academic performance and/or the results of the college placement test.

Prerequisites are courses or other requirements that must be satisfied before enrolling in a course.

Corequisites may be satisfied prior to enrollment or may be taken at the same time. Italicized information at the end of some course descriptions provides additional important information about the course.

Courses that satisfy General Education requirements are organized into the following categories:

- Communication (GE COM)
- Mathematics, Science and Technology (GE MST)
- Social Sciences (GE SS)
- Humanities (GE HUM)
- History (GE HIS)
- Diversity (which includes ethical reasoning) (GE DIV)

General education courses are included in each degree program and noted on the program outlines and in course descriptions included in the catalog.

ACCOUNTING

ACC 101

FINANCIAL ACCOUNTING

Credits: 4 (4-0)

Covers the accounting cycle from the recording and analyzing procedures through the summarizing procedures and preparation of general purpose financial statements; the introduction of accounting for corporations with emphasis on the capital structure of the corporation.

ACC 102

MANAGERIAL ACCOUNTING

Credits: 4 (4-0)

Prerequisite(s): ACC 101

Covers the statement of cash flows; financial statement analysis, the nature of Managerial Accounting, job order cost systems, process cost systems, cost allocation and activity-based costing; analyses for managerial decision-making; budgeting, standard cost systems, accounting for decentralized operations and transfer pricing.

ACC 108

ACCOUNTING PRACTICES FOR HOTELS, RESTAURANTS AND INSTITUTIONS

Credits: 4 (4-0)

Basic concepts and techniques of accounting principles as applied to the public hospitality industry. Emphasizes internal control, departmental reports and operating statistics.

ACC 202

COST ACCOUNTING

Credits: 4 (4-0)

Prerequisite(s): ACC 102

Instruction in the principles of cost accounting and the keeping of cost records. Job order, process, standard cost systems and a survey of other costing techniques and applications.

ACC 203

ACCOUNTING SYSTEMS AND PROCEDURES

Credits: 3 (3-3)

Prerequisite(s): ACC 102

Introduces accounting students to all types of accounting information systems (AIS), especially those systems that employ state-of-the art information technology. Students learn design and evaluate AIS with an eye toward their improvement. The course will also focus on risk exposures, controls and security measures related to AIS. Students will be exposed to leading small business accounting software, specifically QuickBooks.

ACC 206

TAX ACCOUNTING

Credits: 3 (3-0)

Prerequisite(s): ACC 102

Federal income tax laws, rules, and regulations with particular emphasis on their application to individuals. Instruction and practice in the preparation of tax returns of individuals and research and reporting tax problems.

ACC 207

AUDITING

Credits: 3 (3-0)

Prerequisite(s): ACC 212 or permission of the department chair

Designed to acquaint the student with current concepts in auditing, the coverage of Generally Accepted Auditing Standards, accounting concepts and procedures, and the preparation and interpretation of the audit report.

ACC 208

■ **ACCOUNTING FIELD EXPERIENCE**

Credits: 3 (1-12)

Prerequisite(s): ACC 102 and written permission of the department chair and the director of Cooperative Education and Internships

A cooperative work experience program whereby students are employed in an accounting position to gain the practical experience necessary for success in accounting. Supervision of this departmentally approved position is provided by the College through on-the-job visits and individual progress review sessions. Students are required to establish learning objectives related to their position in order to effect the attainment of specific job competencies. Students attend a bi-weekly two-hour seminar on campus and work a minimum of 180 hours per semester. *Individuals must be recommended by the faculty of the department.*

ACC 211

■ **INTERMEDIATE ACCOUNTING I**

Credits: 4 (4-0)

Prerequisite(s): ACC 102

A review of the accounting cycle for a manufacturing and for a merchandise operation. Emphasizes the capital structure of the corporation and the theory and concepts underlying accounts such as cash, receivables, inventories and investments.

ACC 212

■ **INTERMEDIATE ACCOUNTING II**

Credits: 4 (4-0)

Prerequisite(s): ACC 211

A continuation of ACC 211. Concludes the theoretical study of the major accounts on the financial statements. Emphasizes the analytical process relevant to comparative analysis, application of funds, income tax allocation and price-level impact on financial statements.

ACC 221

■ **FRAUD EXAMINATION**

Credits: 3 (3-0)

Prerequisite(s): ACC 207, BUS 107 or CSC 105 or CSC 106

Fraud examination will examine types of fraud, sources of evidence and analysis of internal and external fraud schemes with an emphasis on the skills needed to identify and investigate fraud.

ACC 222

■ **FRAUD DATA ANALYSIS**

Credits: 3 (3-0)

Prerequisite(s): ACC 221

Corequisite(s): ACC 223

The study of computer-aided analysis techniques for detecting and investigating fraud cases, issues related to the collection and use of digital evidence and collection of data from electronic devices.

ACC 223

■ **FRAUD AND THE LAW**

Credits: 3 (3-0)

Prerequisite(s): ACC 221

Corequisite(s): ACC 222

Sociological and psychological theories of criminal behavior, laws, rules of evidence, the rights of persons under investigation, interrogation and interviewing, report writing, and ethics, as these topics relate to forensic accounting and fraud examination.

ACC 224

■ **ADVANCED FRAUD EXAMINATION**

Credits: 3 (3-0)

Prerequisite(s): ACC 221, ACC 222 and ACC 223

Advanced Fraud Examination includes an integrative capstone experience using case presentations and projects over the course of the semester. In order to complete the assignments in this course, students must integrate and draw upon the knowledge and skills developed in the other courses in the Forensic Accounting and Fraud Examination curriculum.

ADVERTISING GRAPHICS DESIGN

(See Media Arts and Design for prerequisite courses)

AGD 212

■ **ADVERTISING DESIGN**

Credits: 3 (2-3)

Prerequisite(s): AGD 213 and AGD 219

This course is designed to give the student the feel of working, in teams, on a professional advertising campaign. Two presentations are required: First, a researched exposition of the product or service, and second, the team presentation of the final advertising campaign, along with portfolios of their individual contributions. Typical elements required are: corporate identity, magazine or trade journal ads, billboards or posters, direct mail pieces, sample packaging, storyboards for video ads, etc. This final presentation is videotaped.

AGD 213

■ **TYPOGRAPHY**

Credits: 3 (2-3)

Prerequisite(s): All MAD courses

Students become versed in fundamentals of layout and typographic design. Topics include history, letter form drawing, type anatomy, fonts, white space usage and the use of grid systems for layouts. Through a series of design problems, students will learn to use type as an effective visual element relevant to layout and content. Historical and contemporary models of layout and type usage will be explored through both traditional hand and digital means. The course covers layout and typographic standards of many types of publication, both print and electronic. Students submit a complete portfolio at the end of the semester.

AGD 214

■ **PRINT PRODUCTION**

Credits: 3 (2-3)

Prerequisite(s): All MAD courses and AGD 219

Students learn the steps to produce mechanicals for print applications. The history of printing and conventional as well as digital printing processes, are explored. Production problems such as screens, ink limits, proofing and cost control are addressed. Pre-press workflow is covered including: color systems, file formats, image resolution, separations, trapping, paper selection and preflighting. Emphasis is on producing trouble-free files for commercial print. Students submit a complete portfolio of work at the end of the semester.

AGD 219

- **DIGITAL GRAPHICS**

Credits: 3 (2-3)

Prerequisite(s): All MAD courses

Students will examine technical and aesthetic imaging problems in print and advertising. Conceptual and analytical thinking will be stressed in creating original visual statements. In-depth Illustrator and Photoshop methods will be covered in the development and editing of CMYK artwork. As the complexity of the projects increases, advanced material, such as color spaces, masking, layers and filters will be addressed. Topics covered will include input and output methods, image editing, color standards and corrections, photo collage, conceptual illustration and special effects.

AGD 222

- **MEDIA ART AND DESIGN FIELD EXPERIENCE**

Credits: 3 (1-12)

Prerequisite(s): Completion of all MAD courses, and three AGD courses for the Advertising Graphic Design option or three courses for the Professional Commercial Photography option and written permission of the department chairperson and Counseling and Career Services Office

A cooperative work experience program whereby students are provided with a job that will enhance their competency by getting practical hands-on experience on state-of-the-art technology utilized by commercial designers and photographers. Students are assigned to work on a one-to-one basis with a professional designer or photographer using the latest techniques and equipment. Supervision of this departmentally approved position is provided by the College through on-the-job visits and individual progress review sessions. Students are required to describe their objectives and attain specific job skills. Students attend a bi-weekly two-hour seminar on campus and work a minimum of 180 hours per semester. *Open to students recommended by the faculty of the department. Career interest and goals taken into account. Marketing Art and Design Field Experience is not a graduation requirement.*

AGD 280

- **PORTFOLIO**

Credits: 3 (2-3)

Prerequisite(s): All MAD courses and 6 credits of AGD courses

Corequisite(s): The remaining six AGD credits

Students learn about job discovery and search, resume creation, both paper and electronic, employment letter writing and interviewing techniques. This is in addition to the primary goal of producing a professional level portfolio, both on paper and in digital/electronic formats. They will also be guided in discovering their professional strengths and goals through an individual self-evaluation process. Field trips are taken. Purchase of portfolio materials will be required.

AFRICAN-AMERICAN STUDIES

AFS 121

- **INTRODUCTION TO AFRICAN-AMERICAN STUDIES**

Credits: 3 (3-0)

Introduction to the foundations and approaches of African-American studies. Examines historical, sociological, psychological, religious and philosophical perspectives of the African-American experience.

AFS 123 GE HUM GE DIV

- **INTRODUCTION TO AFRICAN CIVILIZATIONS**

Credits: 3 (3-0)

The historical development of African civilizations from earliest times to the present. Focuses on the cultural, political, social and economic factors which shaped Africa and its people.

AFS 231 GE HUM GE DIV

- **AFRICAN-AMERICAN HISTORY**

Credits: 3 (3-0)

This course surveys the history of the African-Americans in the United States from African origin to the present. Special attention will be given to the social, political, economic experiences and events that have helped shape the African-American community.

AMERICAN SIGN LANGUAGE

ASL 121 GE HUM

- **AMERICAN SIGN LANGUAGE I**

Credits: 3 (3-0)

This course will cover a general introduction to American Sign Language, its structure, grammatical rules and vocabulary. These areas include topics as the manual alphabet, basic words, sentences, numbers, phonology, morphology, the use of the space, classifier verbs, adjectives, nouns, pronouns, non-manual, cues and finger spelling. It will also cover issues related to deaf culture and history. There will be assignments outside of the classroom. This course is taught primarily in American Sign Language.

ASL 122 GE HUM

- **AMERICAN SIGN LANGUAGE II**

Credits: 3 (3-0)

Prerequisite(s): ASL 121

This course is a continuation of American Sign Language I designed to improve expressive and receptive skills and to expand on vocabulary and grammatical rules. Students will focus on non-manual markers and facial grammar. There will be assignments outside the classroom. This class is taught primarily in American Sign Language.

ART

(For related courses, see Media Arts and Design)

ART 104

- **HISTORY OF PHOTOGRAPHY**

Credits: 3 (3-0)

An exploration of the history, technology and art of photography. The course stresses the visual literacy components of photography through time and across cultures, from Chinese Magic Mirrors through traditional silver processes to current electronic and digital imaging. Students will become familiar with practitioners and artists who use the medium as their tool of communication.

ART 105 GE HUM

- **INTRODUCTION TO ART**

Credits: 3 (3-0)

A combination lecture and studio course designed to increase appreciation of art through experimentation with materials in a variety of media. Includes exploration of elementary two-and-three-dimensional problems in design. Field trips required.

ART 109

- **DRAWING**

Credits: 3 (3-0)

A workshop and lecture course exploring media, concepts and techniques of drawing. Skill in representing objects, landscape, human and imaginative form is approached through practice and the examination of the works of previous and present day artists. Individual criticism aimed at personal growth of artistic ability and insight. Outside assignments to be reviewed by instructor. Field trips required.

ART 110

- **FIGURE DRAWING**

Credits: 3 (3-0)

Practice combining nature and the imagination is directed toward exploring form and developing the basic techniques of drawing the undraped figure. Field trips required.

ART 115 GE HUM

- **SURVEY OF NON-WESTERN ART**

Credits: 3 (3-0)

A survey of the visual expressions, traditions, philosophies, materials and aesthetics of art created in Africa, Asia and the Americas. Development from ancient times to the present, as well as diverse cultural influences on Western artists will be explored. Slide presentations, films and field trips to museums and art galleries are included.

ART 120 GE HUM

- **SURVEY OF AMERICAN ART**

Credits: 3 (3-0)

A survey of American art from Native American art to the present day. The course will concentrate on the evolution of the nation's art in its historical, social, political, cultural and geographical context. The focus will be on the major trends in painting, sculpture, architecture and photography. Slide presentations, films and field trips to museums and art galleries are included.

ART 123 GE HUM

- **ART HISTORY: ANCIENT TO RENAISSANCE**

Credits: 3 (3-0)

Examines developments in painting, sculpture and architecture from prehistory to the High Renaissance in Western art. Significant periods emphasized through slides and films. Field trips required.

ART 124 GE HUM

- **ART HISTORY: RENAISSANCE TO MODERN**

Credits: 3 (3-0)

Examines developments in painting, sculpture and architecture from the High Renaissance to the twentieth century in Western art. Significant artists and their contributions to techniques. Field trips required.

ART 125 GE HUM

- **ART HISTORY: MODERN AND CONTEMPORARY**

Credits: 3 (3-0)

Examines developments in painting, sculpture and architecture in Western Art since the Industrial Revolution to the present day via major styles, movements and significant artists. Field trips required.

ART 145

- **ART FUNDAMENTALS: TWO DIMENSIONS**

Credits: 3 (2-2)

A studio course to explore two-dimensional concepts and develop visual thinking in relation to various fine arts areas such as drawing and painting. Open to non-art majors as an elective. Required of art majors.

ART 146

- **ART FUNDAMENTALS: THREE DIMENSIONS**

Credits: 3 (2-2)

A studio course to explore three-dimensional design concepts and develop visual thinking in relation to various fine arts areas such as sculpture and ceramics. Mixed media – the interaction of two-and-three-dimensional concepts – is explored. Open to non-art majors as an elective. Required of art majors.

ART 148

- **ART PORTFOLIO WORKSHOP**

Credits: 1 (1-0)

Prerequisite(s): One or more three-credit studio art courses or written permission of the department chairperson

Student art work is developed and expanded into a coherent portfolio. The course focuses on the preparation of a body of work for presentation in a professional manner and for effective transfer to senior institutions. Issues of quality, range of style and techniques and methods of representing work in a critical setting are addressed. Field trip required.

ART 149

- **ART STUDIO SEMINAR**

Credits: 1 (1-0)

Prerequisite(s): One or more three-credit studio art courses or written permission of the department chairperson and Counseling and Career Services Office

Art studio issues are addressed as they relate to the artist in contemporary society. The motivations, relevance and the nature of art-making in American and global culture are investigated. The creation of subject matter for artistic expression that is personally meaningful is placed in a larger aesthetic context. The conceptual links among all the visual arts are explored. Field trip required.

ART 150

- **INTRODUCTION TO MIXED MEDIA**

Credits: 3 (0-3)

This introduction to mixed media explores the techniques and concepts of collage making and involves composing images using a variety of materials including papers, fabrics and found objects. The emphasis is on the pictorial applications of collage, but some experience is given to its three-dimensional extension, assemblage. A survey of the medium's relevance in modern and contemporary art is explored, along with its connections to the other visual arts. Field trip required.

ART 201

- **CERAMICS: HAND-BUILDING**

Credits: 3 (3-0)

Experience in the various hand-building and decorating techniques as well as some experience in the process of stacking and firing the kiln. Field trips required.

ART 202

- **CERAMICS: WHEEL-THROWING**

Credits: 3 (3-0)

Prerequisite(s): ART 201

Basic skill is developed in the use of the potter's wheel. Study of glaze materials and use of original glaze techniques. Field trips required.

ART 205

- **ADVANCED CERAMICS WORKSHOP**

Credits: 3 (3-0)

Prerequisite(s): ART 202 or demonstrated throwing ability

Advanced throwing techniques and surface treatments, including englobe decoration, wax resist, lusters and glazes. Thrown forms are used to experiment with various techniques. Slides, lectures and a museum visit will supplement the weekly demonstrations. Critiques will enable students to develop both their work and critical facilities.

ART 208

- **ART SEMINAR AND CO-OP EDUCATION WORK EXPERIENCE**

Credits: 3 (1-12)

Prerequisite(s): Written permission of the department chairperson and Counseling and Career Services Office

A cooperative work experience program whereby students are employed in a visual arts position in order to gain some of the practical experience necessary for success in various aspects of visual arts: artistic, technical and/or administrative. The College provides supervision of this departmentally approved position through on-the-job visits and individual progress sessions. Students are required to establish learning objectives related to their positions in order to effect the attainment of specific job competencies. Students attend a bi-weekly two-hour seminar on campus and work a minimum of 180 hours per semester. *Individuals must be recommended by the chairperson of the Visual Arts Department and register with the Counseling and Career Services Office.*

ART 219

- **GRAPHIC ARTS: TRADITIONAL**

Credits: 3 (3-0)

Introductory Graphic Arts is explored through the practice of two traditional and evolving graphic techniques, including the processes of mono-printing, collography (collage graphics) and the similar methods of woodcutting and linocutting. Technical control, basic pictorial concepts and an awareness of the cultural application of the mono-print and the basic relief print are emphasized. A materials fee and a field trip are required.

ART 220

- **GRAPHIC ARTS: CONTEMPORARY**

Credits: 3 (0-3)

Introductory graphic arts are explored through the practice of two evolving, graphic techniques: screen-printing and intaglio – a method from which multiples may be printed. Technical control, basic pictorial concepts and an awareness of the cultural application of the screen-print and the intaglio print are emphasized. A materials fee and a field trip are required.

ART 221

- **PAINTING: TRADITIONAL**

Credits: 3 (3-0)

The language and materials of painting are explored through still life, landscape and live model. Practice of easel techniques are enhanced by the examination of traditional paintings past and present. A materials fee and a field trip are required. Students will provide some of their own supplies.

ART 222

- **PAINTING: CONTEMPORARY**

Credits: 3 (3-0)

Objective and imaginative form in painting is explored through traditional and experimental techniques incorporating individual interpretation on guided projects. Study of modern art movements and contemporary artists are combined with studio assignments. A materials fee and a field trip are required. Students will provide some of their own supplies.

ART 223

- **SCULPTURE: TRADITIONAL**

Credits: 3 (3-0)

Explores the language and materials of sculpture in relief. Develops skill and understanding of the basic elements of sculptural form through modeling, carving and casting in relief. Examines the work of sculptors through slides, films, books and field trips. A materials fee is assessed to cover the cost of materials required for the course.

ART 224

- **SCULPTURE: CONTEMPORARY**

Credits: 3 (3-0)

Explores the language and materials of sculpture. Develops skill and understanding of the basic elements of sculptural form through guided projects using the traditional tools and techniques for sculpture in the round. Examines previous and contemporary sculptors and styles through slides, films, books and field trips. A materials fee is assessed to cover the cost of materials required for the course.

AUTOMOTIVE TECHNOLOGY

AUT 108

- **AUTOMOTIVE TECHNOLOGY WORK EXPERIENCE I**

Credits: 3 (1-12)

Prerequisite(s): AUT 122, AUT 124 and AUT 126 and written permission of the department chairperson and Counseling and Career Services Office

A cooperative work experience program employing students in a technical position in order to gain practical experience necessary for success in the automotive service industry. Supervision of this departmentally approved position is provided by the College through on-the-job visits and individual progress review sessions. Students are required to describe their objectives and attain specific job skills. Students attend a bi-weekly two-hour seminar on campus and work a minimum of 180 hours per semester. *Students must register with the Counseling and Career Services Office.*

AUT 111

- **MINOR AUTOMOTIVE SERVICES**

Credits: 3 (0-6)

Introduces shop operations, customer relations, flat rate manuals, safety, organizational design, pay structure, equipment, tools and basic operational theories. Includes service procedures of lubrication, batteries, the cooling system, wheels and tires and new car pre-delivery service.

AUT 115

- **AUTOMOTIVE BRAKE SYSTEMS**

Credits: 2 (0-5)

Covers diagnosis and repair of both drum and disc brake systems, power brake boosters, master cylinders, wheel cylinders and related component parts.

AUT 117

- **AUTOMOTIVE ELECTRICAL SYSTEMS**

Credits: 3 (0-6)

Covers the automobile electrical system including batteries, wiring, lighting, alternators, generators, starters and voltage regulators. Includes the use of electrical test equipment and schematics. Stresses the proper care and use of tools.

AUT 122

- **ANALYSIS AND TUNE-UP**

Credits: 3 (0-6)

Prerequisite(s): AUT 111

Corequisite(s): AUT 124 and AUT 126

Covers techniques for diagnosing the automobile engine and other areas. Stresses electronics and conventional ignition systems. Introduces carburetion and injection systems. Complete tune-up procedures, using the latest test equipment, are studied to ensure the proper application to the automobile.

AUT 124
- **AUTOMOTIVE HVAC SYSTEMS**

Credits: 3 (0-6)

Prerequisite(s): AUT 111

Focuses on the principles of operation and service techniques applied to automobile air conditioning systems. Topics include components familiarization, testing, diagnosing, charging and repair practices.

AUT 126
- **ALIGNMENT, SUSPENSION AND STEERING SYSTEMS**

Credits: 2 (0-5)

Prerequisite(s): AUT 111

A study of the proper techniques and procedures for complete front-end service, wheel alignment, replacement of worn parts, balancing wheels and related front-end and steering mechanisms.

AUT 208
- **AUTOMOTIVE TECHNOLOGY WORK EXPERIENCE II**

Credits: 3 (1-12)

Prerequisite(s): AUT 211, AUT 213, AUT 216 and AUT 217

A cooperative work experience program employing students in a technical position in order to gain practical experience necessary for success in the automotive service industry. Supervision of this departmentally approved position is provided by the College through on-the-job visits and individual progress review sessions. Students are required to describe their objectives and attain specific job skills. Students attend a bi-weekly two-hour seminar on campus and work for a minimum of 180 hours per semester. *Students must register with the Counseling and Career Services Office.*

AUT 211
- **STANDARD TRANSMISSION AND DRIVE TRAIN**

Credits: 3 (0-6)

Prerequisite(s): AUT 108

A study of the operating principles, construction and maintenance of the manual transmission and related drive train components.

AUT 213
- **AUTOMATIC TRANSMISSION I**

Credits: 3 (0-6)

Prerequisite(s): AUT 208

Corequisite(s): AUT 211

A study of the theory, operation and diagnosis of automatic transmissions. Rebuilding of automatic transmissions is introduced.

AUT 216
- **FUEL AND EMISSION SYSTEMS**

Credits: 3 (0-6)

Prerequisite(s): AUT 108

Corequisite(s): AUT 217

A study of the principles and functions of the automotive fuel system including the carburetor, fuel pump, gas tank and emission control systems. Stresses the diagnosis and repair and adjustment of the carburetor, fuel injection and their components.

AUT 217
- **ENGINE DIAGNOSTICS AND REPAIR I**

Credits: 3 (0-6)

Prerequisite(s): AUT 108

Corequisite(s): AUT 216

A study of the operational theory of the internal combustion engine. Engine rebuilding, mechanical diagnosis and failure analysis are introduced. Emphasis is on the proper use of hand tools, measuring instruments and equipment.

AUT 226
- **AUTOMATIC TRANSMISSION II**

Credits: 2 (0-5)

Prerequisite(s): AUT 208 and AUT 213

A continuation of Automatic Transmission I. Transmission rebuilding is continued with emphasis on in-service automotive repair.

AUT 228
- **ENGINE DIAGNOSTICS AND REPAIR II**

Credits: 3 (0-6)

Prerequisite(s): AUT 208 and AUT 217

A continuation of Engine Diagnostics and Repair I. Engine rebuilding is continued with emphasis on the proper use of hand tools, measuring instruments and equipment.

AUT 229
- **AUTOMOTIVE ELECTRICITY AND ELECTRONICS**

Credits: 3 (0-6)

Prerequisite(s): AUT 208

Corequisite(s): AUT 226 and AUT 228

An introduction to electrical/electronic principles and applications to automotive systems. Covers DC and AC circuit fundamentals, wiring diagrams, electronic devices, use of test equipment and troubleshooting techniques.

BIOLOGY

(For related courses, see Science)

BIO 010
- **BASIC BIOLOGY**

Credit equivalent(s): 4 (3-3)

Corequisite(s): Appropriate score on the college placement test or MAT 013

An introduction equivalent to one year of high school biology. The basic principles and terminology of biological sciences. *Recommended for students with insufficient background in biology to prepare them for college level biology courses. "C" is the minimum acceptable grade for movement from one remedial/developmental level to another and for completion of remediation/development requirements.*

BIO 103 GE MST
- **PLANTS, PEOPLE AND CULTURE**

Credits: 3 (2-2)

This is a general one-semester introductory survey course in plant biology. Some topics to be included are basic plant structures and functions, medicinal and poisonous plants, origins of agriculture and the green revolution. Lab exercises, using the scientific method, will investigate various plant physiological processes. Plants and their impact on society from both a contemporary and historical perspective will be critically examined using Internet research and current readings. *(Recommended for non-science majors).*

BIO 104 GE MST
- **MYSTERIES OF THE MICROBIAL WORLD**

Credits: 3 (2-2)

This course, designed for the non-major, uses scientific principles to investigate the diversity of microbial life. Laboratory-based modules use the scientific method to explore the cellular, ecological, epidemiological and commercial roles of microorganisms. The interdependence of microorganisms to life on Earth is examined. Laboratory exercises introduce students to principles of light microscopy, aseptic methods of handling and cultivating microorganisms, fermentation and DNA isolation. The historical and social impact of infectious diseases is explored using case studies, current events and webquests to encourage critical thinking skills. Examination of contemporary topics, including the development of antibiotic resistance, bioterrorism and genetic engineering are designed to foster scientific literacy. A research paper is required.

BIO 105 GE MST

- **HEREDITY, EVOLUTION AND SOCIETY**

Credits: 4 (3-2)

Prerequisite(s): Appropriate score on the college placement test or MAT 013 and one year high school laboratory science or a three-credit college level science course with a grade of "C" or better

This course is an introductory survey that demonstrates how and why evolutionary theory is the unifying principle of modern biology. The course also examines the biological disciplines of classical and population genetics, molecular genetics, cell biology, human evolution and origins of life research. The impact of evolutionary theory and applications of genetic technologies on society are assessed. Labs include computer simulations, lab activities (non-dissection) and use of various audio-visual materials. *Recommended for non-science majors.*

BIO 106 GE MST

- **HUMAN BIOLOGY, BIOMEDICAL ISSUES AND SOCIETY**

Credits: 4 (3-2)

Prerequisite(s): Appropriate score on the college placement test or MAT 013 and one year high school laboratory science or a three-credit college level science course with a grade of "C" or better

An introduction to the functioning of the human body; a survey of selected body systems in health and disease. There will be discussions and written assignments concerning human biological issues from both historical and current perspectives. Laboratory exercises (without dissection), audio-visual materials, computer simulations and current readings are included. *Recommended for non-science majors.*

BIO 108 GE MST

- **ESSENTIALS OF HUMAN ANATOMY AND PHYSIOLOGY**

Credits: 3 (3-2)

Prerequisite(s): Appropriate score on the college placement test or MAT 013 and one year high school laboratory science or BIO 010 or CHM 010

A one semester survey of the cells, tissues and systems of the human body. Structural, functional and biochemical features of the integumentary, skeletal, muscular, nervous, endocrine, special senses, digestive, respiratory, lymphatic, urinary and reproductive systems in health and disease are studied and examined. *Recommended for non-science majors. This course fulfills the science requirement for Dietetic Technology students.*

BIO 111 GE MST

- **HUMAN ANATOMY AND PHYSIOLOGY I**

Credits: 4 (3-3)

Prerequisite(s): One year of high school laboratory biology or BIO 010, and one year of high school laboratory chemistry or CHM 010, and appropriate score on the college placement test or MAT 013

A study of cellular transport mechanisms and tissues as they relate to organs and systems. Structural and functional features of the skeletal, muscular and nervous systems and special senses are examined. *Recommended for students in the health sciences.*

BIO 112 GE MST

- **HUMAN ANATOMY AND PHYSIOLOGY II**

Credits: 4 (3-3)

Prerequisite(s): BIO 111 with a minimum grade of "C"

A continuation of BIO 111. A study of the structure and function of the body is continued by examining the endocrine, reproductive, circulatory, digestive, respiratory and excretory systems.

BIO 117 GE MST

- **BIOLOGY I**

Credits: 4 (3-3)

Prerequisite(s): Appropriate score on the college placement test or MAT 013 and one year high school laboratory science or BIO 010 or CHM 010

A general study of the physical and chemical properties of living material, cell organelles, cell transport, cell division, energy transformations in photosynthesis and cellular respiration, plant and animal tissues, the classification of organisms and genetics.

BIO 118 GE MST

- **BIOLOGY II**

Credits: 4 (3-3)

Prerequisite(s): BIO 117

A continuation of Biology 117. Emphasis is on supporting life processes, animal systems, evolution, ecosystems and communities.

BIO 119 GE MST

- **BIOLOGY FOR LABORATORY TECHNOLOGY I**

Credits: 4 (3-3)

Prerequisite(s): Appropriate score on the college placement test or MAT 013 and one year high school laboratory science or BIO 010 or CHM 010

A general study of cell biology including chemistry, organelles, membranes, cell division, energy transformations and genetics. Plant and animal tissues and classification of living things are also introduced. The labs focus on the skills required for lab technicians such as preparation and calculation of solutions, proper documentation and safety considerations. Emphasis is on the care and use of basic laboratory instruments, such as microscopes, balances and spectrophotometers.

BIO 120 GE MST

- **BIOLOGY FOR LABORATORY TECHNOLOGY II**

Credits: 4 (3-3)

Prerequisite(s): BIO 119

This course is a continuation of BIO 119 with emphasis on evolution, adaptation, life processes in plants and animals and ecology. The labs are divided into two major projects emphasizing plant and animal care. The labs stress the development of specific technical skills such as hypothesis development, experimental design, data management and documentation, data analysis and written reports.

BIO 123 GE MST

- **GENERAL BIOLOGY I**

Credits: 4 (3-3)

Prerequisite(s): One year of high school laboratory biology or BIO 010 and one year of high school laboratory chemistry or CHM 010 passed with a "C" or higher. Also appropriate score on the college placement test or MAT 013.

A study of the basic principles of life; biological chemistry; cell structure, function and reproduction; metabolism including cellular respiration and photosynthesis; Mendelian genetics and principles of modern genetics. Required of science transfer students in biology.

BIO 124 GE MST

- **GENERAL BIOLOGY II**

Credits: 4 (3-3)

Prerequisite(s): BIO 123

A survey of plant and animal taxonomy, anatomy and physiology; evolutionary theory and principles of ecology. Laboratory sessions include dissections.

BIO 131 GE MST

HUMAN STRUCTURE AND FUNCTION

Credits: 4 (3-3)

Prerequisite(s): One year of high school biology or BIO 010, and one year of high school chemistry or CHM 010, and appropriate score on the college placement test or MAT 013

A one semester survey of the cells, tissues, organs and systems of the human body designed to establish a basic knowledge in human anatomy and physiology. The structural and functional features of the integumentary, skeletal, muscular, nervous, endocrine, sensory, digestive, cardiovascular, lymphatic, respiratory, urinary and reproductive systems will be studied and examined. *Offered only for career track students in Radiographic Technology.*

BIO 205

METHODS IN DNA TECHNOLOGY

Credits: 3 (2-3)

Prerequisite(s): BIO 120, CHM 118 or CHM 124 and MAT 108

This is a laboratory course which emphasizes application and mastery of general skills learned in previous semesters as well as specific skills relating to recombinant DNA technology such as restriction digestion, gel electrophoresis, transformation, plasmid preparations, PCR (polymerase chain reaction) and Southern transfers. Students will gain extensive hands-on experience in nucleic acid techniques and manipulations.

BIO 206

PROTEIN PURIFICATION AND TISSUE CULTURE TECHNIQUES

Credits: 3 (2-3)

Prerequisite(s): BIO 205

Corequisite(s): CHM 220

This course is designed to be a continuation of BIO 205. Students will develop new skills in protein manipulation, separation techniques and plant/animal tissue culture techniques. They will apply the skills they acquired throughout the Biotechnology curriculum to complete a capstone project.

BIO 211

PRINCIPLES OF MICROBIOLOGY

Credits: 4 (3-3)

Prerequisite(s): One year of high school laboratory biology or BIO 010, and one year of high school laboratory chemistry or CHM 010, and appropriate score on the college placement test or MAT 013

An introductory study of the microbial world with emphasis on the nature and behavior of microorganisms, the interrelationships that operate between microbes and the human host in health and disease and the principles of prevention and control of infectious disease. Laboratory experience develops techniques in the proper handling, observation and identification of microbial cultures. *Recommended for students in the health sciences.*

BIO 221

MICROBIOLOGY

Credits: 4 (3-3)

Prerequisite(s): BIO 118, BIO 120 or BIO 124, CHM 118 or CHM 124

A comprehensive study of microorganisms with emphasis on bacteria. Topics include: cellular and viral structure and function, taxonomy, microbial metabolism and genetics, physical and chemical methods of controlling microorganisms and concepts of pathogenicity and immunology. The laboratory exercises emphasize practical skills in manipulating, observing, controlling and identifying microbes.

BIO 224

APPLIED MICROBIOLOGY

Credits: 4 (3-3)

Prerequisite(s): BIO 221 with a minimal grade of "C"

Topics include: microbial ecology, aquatic microbiology, including water and wastewater treatment; microbiology of air, soil and food; dairy microbiology; industrial microbiology. In the laboratory, students learn standard methods of analysis for microorganisms in the environment.

BIO 226

BIOLOGICAL TECHNOLOGY COOPERATIVE EDUCATION

Credits: 3 (1-12)

Prerequisite(s): Written permission of the department chairperson and Counseling and Career Services Office

A cooperative work experience program whereby students are employed in a technical position in order to gain some of the practical experience necessary for success in biological technology. Supervision of this departmentally approved position is provided by the College through on-the-job visits and individual progress review sessions. Students are required to describe their objectives and attain specific job skills. Students attend a bi-weekly two-hour seminar on campus and work a minimum of 180 hours per semester. *Individuals must be recommended by the faculty of the department and registered with the Counseling and Career Services Office.*

BIO 228

GENETICS

Credits: 4 (3-3)

Prerequisite(s): BIO 124 and CHM 124

Mendelian and molecular concepts of heredity and their relationship to cell function, development and evolution. Topics include structure, function of genes, patterns of inheritance, nature and causes of mutations, mechanisms of gene regulation and population genetics. Lab includes genetics of fruit flies, fungi, bacteria, human pedigree analysis and modern molecular techniques.

BIO 229

CELL BIOLOGY

Credits: 4 (3-3)

Prerequisite(s): BIO 124 and CHM 123

Corequisite(s): CHM 124

This course is a study of biology at cellular and sub-cellular levels. It introduces students to the structure, function and organization of cellular components of living organisms. Integration of structure and function at the cellular and molecular levels is emphasized. Students will apply the concepts of cell biology to disease processes such as cancer. Students will gain hands-on experience in a variety of experimental techniques used in biological research.

BIO 240

RESEARCH IN BIOLOGY

Credits: 4 (0-8)

Prerequisite(s): BIO 124, CHM 124 and ENG 121

Students will engage in a scientific investigation under the guidance of a research scientist in an academic institution. A faculty member of the Middlesex County College Biology Department will monitor the project. The research scientist and the MCC Biology faculty will jointly assess the student's work. The assessment includes between 85-130 hours of lab work, a written report and oral presentation. This course can be used to fulfill the SCI/MAT elective or BIO elective, but not both, for the Science Transfer Biology Program. Students are expected to provide their own transportation.

BUSINESS

BUS 101

BUSINESS ORGANIZATION AND MANAGEMENT

Credits: 3 (3-0)

The planning, supervision, control and performance of activities involved in the production of goods and services. The problems of human relations and labor-management and the functions of human resources, marketing, purchasing, production and finance are explored from the standpoint of effectively carrying on business that relates positively to the society of which it is a part.

BUS 107

- **COMPUTER APPLICATIONS FOR BUSINESS**

Credits: 3 (3-0)

Introduces the terminology and use of current PC hardware and software for processing and communicating data. Through hands-on, teacher-led instruction in the computer lab, emphasis is placed on the use of Microsoft's popular applications: Word, Excel, PowerPoint and Access in a business environment.

BUS 115

- **MATHEMATICS OF FINANCE**

Credits: 3 (3-0)

Prerequisite(s): Passing score on the college placement test or successful completion of MAT 013

A study of the mathematics and terminology related to buying and selling, time value of money using simple and compound interest, basic statistics with charts and graphs and fundamentals of investing.

BUS 201

- **BUSINESS LAW I**

Credits: 3 (3-0)

Brief surveys of the American legal system, procedural law, crimes and torts, administrative agencies, consumer, environmental and planning law. Detailed study of the substantive law of contracts, personal property and bailments and sales law. (In applicable areas, the Uniform Commercial Code is covered as well as the common law principles.)

BUS 202

- **BUSINESS LAW II**

Credits: 3 (3-0)

Prerequisite(s): BUS 201

Detailed study of the substantive law of commercial paper, agency and employment, security devices, bankruptcy, partnerships and corporations and real property. Decedents' estates, wills and trusts as well as insurance law are surveyed. (In applicable areas, the Uniform Commercial Code is covered as well as the common law principles.)

BUS 210

- **INTRODUCTION TO EVENT PLANNING**

Credits: 3 (3-0)

Prerequisite(s): BUS 101 or SBM 120 or HRI 101

This course introduces the special skills required for the planning of meetings, expositions, events and conventions, which are normally expensive and often one-time occasions. Students will learn how to design, plan, market and stage an event; including dealing with staffing problems, ensuring the safety of all involved as well as legal compliance, risk management, financial control and evaluation of the event.

BUS 213

- **LAW FOR EVENT PLANNING MANAGEMENT**

Credits: 3 (3-0)

This course is designed for students in event planning. As professionals making decisions every day based on their own interpretation of the law, they have a great need to understand how they can act in ways to ensure that they are managing legally in the industry, the basic foundations and principles of the laws affecting the industry as well as guidelines and techniques that show students how to implement preventive management and apply practical legal awareness to their actions.

BUS 239

- **FIELD EXPERIENCE IN EVENT PLANNING MANAGEMENT**

Credits: 3 (1-12)

Prerequisite(s): Completion of half the courses required in the Event Planning Management curricula and written permission of department chairperson

Integration of classroom study with specific planned period of learning through work experience, co-op or internship based. The course utilizes a seminar approach with performance-based human relations activities and individual student objectives that are job related and employer evaluated.

BUS 240

- **BUSINESS COMMUNICATION**

Credits: 3 (3-0)

Prerequisite(s): ENG 122 or ENG 125 or permission of department chair

The course focuses on oral and written communication theory and practice appropriate for a variety of business situations. Students generate and examine routine and special business correspondence, strategic electronic communication, and informational and analytical business reports; conduct business research; refine team-oriented skills; and design/deliver oral presentations. The following concepts are emphasized: the nature of audience; business communication forms/formats; tone, style and diction; purpose; clarity and complexity; and other relevant rhetorical issues. This course is cross-listed in the English and Business departments. Students may not earn credit for both BUS 240 and ENG 240.

BUS 250

- **SEMINAR IN EVENT PLANNING MANAGEMENT**

Credits: 3 (3-0)

Prerequisite(s): BUS 210, BUS 213, BUS 239, BUS 240, HRI 206, HRI 250 and SBM 110

This is the capstone course for Event Planning Management. It covers a variety of topics to test theories and practices learned in the major. Case studies and presentations are key to the course. The "team concept" is employed and group dynamics are developed.

CHEMICAL PROCESS TECHNOLOGY

CPT 100

- **INTRODUCTION TO CHEMICAL PROCESS TECHNOLOGY**

Credits: 3 (3-0)

This course serves as an introduction to the process industries - chemical, petrochemical, pharmaceutical and food. The course focuses on technician duties, responsibilities and expectations; process terminology, plant organization and a general overview of process equipment, systems and operations. Plant tours will be conducted.

CPT 205

- **PROCESS TECHNOLOGY INSTRUMENTATION**

Credits: 3 (3-0)

Prerequisite(s): CHM 117 and CPT 100

This course will introduce the student to all aspects of instrumentation used in the process industry. Students will be introduced to a variety of common terms, relationships between process variables and pertinent concepts and definitions. Students will learn about process instruments that control pressure, temperature, flow and level. The concept of control loops and how each component of a control loop acts individually and together to sense, measure, compare and control or convert signals between the various components will be examined.

CPT 206

■ **PROCESS TECHNOLOGY EQUIPMENT**

Credits: 4 (3-2)

Prerequisite(s): CHM 117 and CPT 100

The purpose of this hands-on course is to introduce students to practical fluid, heat and mass transfer theory as evident in typical industrial processes. The course will introduce the student to all aspects of equipment used in the process industry. Students will learn about the operation of processing equipment such as: reactors, dryers, filters, motors, pumps, valves, gauges, transmitters, utilities, piping, tubing and computers. A simple pilot plant will be designed, built and tested.

CPT 210

■ **PROCESS TECHNOLOGY SYSTEMS**

Credits: 4 (3-2)

Prerequisite(s): CPT 100

The interrelation of process equipment and process systems. Specifically, students will be able to arrange process equipment into basic systems; explain how factors affecting process systems are controlled under normal conditions; and recognize abnormal process conditions. In addition, students are also introduced to the concept of system and plant economics.

CPT 212

■ **PROCESS TECHNOLOGY OPERATIONS**

Credits: 4 (3-2)

Prerequisite(s): CPT 100

To provide an overview or introduction into the field of operations within the process industry. Students will use existing knowledge of equipment, systems and instrumentation to understand the operation of an entire unit. Students study concepts related to commissioning, normal setup, normal operations, normal shutdown, turnarounds and abnormal situations, as well as the process technician's role in performing the tasks associated with these concepts within an operating unit.

CPT 214

■ **PROCESS TECHNOLOGY QUALITY**

Credits: 3 (3-0)

Prerequisite(s): CPT 100

This course will provide an overview of the field of quality within the process industry. Students will learn about many process industry-related quality concepts including operating consistency, continuous improvement, plant economics, team skills and statistical process control. Methods to ensure operating consistency, process variables, waste issues and techniques used to prevent process safety incidents will also be covered in the course.

CPT 226

■ **PROCESS TECHNOLOGY COOPERATIVE EDUCATION**

Credits: 3 (1-12)

Prerequisite(s): CPT 100, CPT 205 and written permission of the department chairperson and Counseling and Career Services Office

A cooperative work experience program whereby students are employed in technical positions to gain practical experience necessary for success in process technology. Supervision of this departmentally approved position is provided by the College through either the Chemistry/Physics department or the Counseling and Career Services Office through on-the-job visits and individual progress review sessions. Students are required to establish learning objectives related to their position in order to effect the attainment of specific job competencies. Students attend a bi-weekly two-hour seminar on campus and work a minimum of 180 hours per semester. *Individuals must be recommended by the faculty of the department and register with the Counseling and Career Services Office.*

CHEMISTRY

(For related courses, see Science)

CHM 010

■ **BASIC CHEMISTRY**

Credit equivalent(s): 4 (4-2)

Prerequisite(s): MAT 013 or appropriate score on the college placement test

An introduction to the fundamental principles of chemical structure and reactions. Includes applications in related laboratory work. *Note: "C" is the minimum acceptable grade for movement from one remedial/developmental level to another and for completion of remediation/developmental requirements.*

CHM 107 GE MST

■ **PRINCIPLES OF GENERAL, ORGANIC AND BIOCHEMISTRY**

Credits: 4 (3-2)

Prerequisite(s): One year of high school laboratory chemistry or CHM 010

An introduction to basic concepts of inorganic, organic and biochemistry. Topics include the metric system, ionic and covalent bonding, acids, bases and salts, radioactivity, solutions, colloids, emulsions, gases and important organic compound classes such as alcohols, ethers, esters, carbohydrates, proteins, lipids and enzymes. *This course is required for students in Dental Hygiene, Pharmacy Assistant and Respiratory Care.*

CHM 117 GE MST

■ **CHEMISTRY I**

Credits: 4 (4-3)

Prerequisite(s): MAT 013 or appropriate score on the college placement test and one year of high school laboratory science or departmental approval

A foundation course involving a study of the metric system, bonding, the periodic table, chemical equations, mole-related concepts, stoichiometry and gas law. Laboratory experiences stress proper lab technique, use of equipment, treatment of data and safety.

CHM 118 GE MST

■ **CHEMISTRY II**

Credits: 4 (4-3)

Prerequisite(s): CHM 117

A continuation of CHM 117. Topics include qualitative and quantitative solution chemistry, acid-base theory, chemical equilibria, oxidation-reductions and basic electrochemistry. Laboratory experiences cover qualitative analysis and volumetric methods of analysis. The volumetric techniques include acid-base and redox titrations and spectrophotometric analysis. The computer is used to analyze data.

CHM 119 GE MST

■ **GENERAL, ORGANIC AND BIOCHEMISTRY I**

Credits: 4 (3-3)

Prerequisite(s): One year of high school laboratory chemistry or CHM 010 and MAT 014 or appropriate score on the college placement test

An introduction to the concepts of inorganic, organic and biochemistry. Topics include: the metric system, atomic structure, periodic law, ionic and covalent bonding, nuclear radiation, chemical reactions and stoichiometry, gas laws, liquids and solids, acids, bases and salts, solutions, colloids and electrolytes, chemical kinetics and equilibrium and an introduction to hydrocarbon chemistry. Laboratory experiments conducted for each of the major topics. *Recommended for health sciences, liberal arts students.*

CHM 120 GE MST

■ **GENERAL, ORGANIC AND BIOCHEMISTRY II**

Credits: 4 (3-3)

Prerequisite(s): CHM 119

A continuation of CHM 119. Topics include hydrocarbon and functional group organic chemistry, carbohydrates, lipids and proteins, including the metabolism of these substances, nucleic acids and the chemistry of blood and urine. Laboratory experiments conducted for each of the major topics.

CHM 123 GE MST

- **GENERAL CHEMISTRY I**

Credits: 4 (4-3)

Prerequisite(s): MAT 014 or appropriate score on the college placement test and one year of high school chemistry

A theoretical treatment of principles and laws underlying atomic structure, chemical reactions, enthalpy changes, bonding and states of matter integrated with descriptive material and quantitative calculations. Laboratory experiences reinforce both theoretical and quantitative aspects of the lecture topics.

CHM 124 GE MST

- **GENERAL CHEMISTRY II**

Credits: 4 (4-3)

Prerequisite(s): CHM 123 with a minimum grade of "C"

A continuation of CHM 123 concentrating on properties of liquids, solutions and solids, kinetics, gas phase equilibrium, properties of acids and bases, acid-base and solubility equilibria, thermodynamics and electrochemistry. The laboratory includes qualitative and quantitative determinations related to lecture topics.

CHM 201 GE MST

- **PRINCIPLES OF ORGANIC CHEMISTRY**

Credits: 4 (3-3)

Prerequisite(s): CHM 118, CHM 124 or equivalent

An introduction to the basic concepts of organic chemistry in a non-mechanistic approach. Laboratory experiences include the basic techniques of organic synthesis and the related techniques used in the isolation and purification of organic compounds.

CHM 202 GE MST

- **BIOCHEMISTRY**

Credits: 4 (3-3)

Prerequisite(s): CHM 201

An introduction to the chemistry of compounds present in living systems. Topics include the structure and properties of carbohydrates, lipids, proteins and nucleic acids and the metabolism of these substances in the body. Laboratory experiments include the qualitative and quantitative analysis of these compounds. A one-semester course.

CHM 219

- **CLASSICAL VOLUMETRIC AND SPECTROPHOTOMETRIC ANALYSIS**

Credits: 5 (4-4)

Prerequisite(s): CHM 118 and MAT 014 or equivalent

Covers the theory relating to the quantitative techniques of volumetric, gravimetric and spectrophotometric analysis. Topics include evaluation of measurements, concentration calculations, acid-base and precipitation equilibria. Laboratory experiments cover classical volumetric and gravimetric analysis and use of visible spectrometers.

CHM 220

- **METHODS OF CHROMATOGRAPHIC SEPARATION**

Credits: 4 (3-4)

Prerequisite(s): CHM 201, CHM 219 or equivalent

An overview of the theory and equipment of modern instrumentation in the chemistry laboratory. These include Infrared UV/Visible, Nuclear Magnetic Resonance and Mass Spectrometry. The course also explores different techniques of separation including gas, high performance liquid and thin layer chromatography.

CHM 223 GE MST

- **ORGANIC CHEMISTRY I**

Credits: 4 (4-3)

Prerequisite(s): CHM 124 or equivalent

A mechanistic study of the preparation and chemical reactivity of alkanes, alkenes and alkynes. Conformational analysis and stereochemistry of organic compounds. Laboratory experience includes basic techniques for the preparation, isolation, purification and identification of organic compounds.

CHM 224 GE MST

- **ORGANIC CHEMISTRY II**

Credits: 4 (4-3)

Prerequisite(s): CHM 223

A mechanistic study of the preparation and chemical reactivity of alcohols, phenols, ethers, aldehydes, ketones, amines, carboxylic acids and carboxylic acid derivatives. Laboratory experience includes the characterization and identification of organic compounds using modern spectroscopic techniques: IR, 1H-NMR, 13C-NMR and Mass Spectrometry (MS). Introduction to basic techniques of chromatography (GC, HPLC) is also included. Use of the TI-86 calculator or approved equivalent is required for the solution of several types of problems.

CHM 226

- **CHEMICAL TECHNOLOGY COOPERATIVE EDUCATION**

Credits: 3 (1-12)

Prerequisite(s): CHM 201 or CHM 219 and CHM 223 and written permission of the department chairperson and Counseling and Career Services Office

A cooperative work experience program employing students in technical positions to gain practical experience necessary for success in chemical technology. Supervision of this departmentally approved position is provided by the College through on-the-job visits and individual progress review sessions. Students are required to describe their objectives and attain specific job skills. Students attend a bi-weekly two-hour seminar on campus and work a minimum of 180 hours per semester. *Individuals must be recommended by the faculty of the department and register with the Counseling and Career Services Office.*

CHM 240

- **RESEARCH IN CHEMISTRY**

Credits: 4 (0-8)

Prerequisite(s): BIO 124, CHM 124 and ENG 121

Students will engage in a scientific investigation under the guidance of a research scientist in an academic institution. A faculty member of the Middlesex County College Chemistry Department will monitor the project. The research scientist and the MCC Chemistry faculty will jointly assess the student's work. The assessment includes between 85-130 hours of lab work, a written report and oral presentation. This course can be used to fulfill the SCI/MAT elective or Chemistry Elective but not both, for the Science Transfer Chemistry Program. Students are expected to provide their own transportation.

CIVIL ENGINEERING TECHNOLOGY

(For related courses, see Engineering Technology)

CIT 104

- **CONSTRUCTION SURVEYING I**

Credits: 3 (2-2)

Prerequisite(s): MAT 129 or MAT 129A

Introduction to surveying, measurement theory, field and office procedures and error analysis. Lectures emphasize the concepts, computations, analysis and adjustments of leveling, angle observation, distance measure and control traverses. Field exercises stress the techniques of distance measure from rough pacing to use of the Electronic Distance Measure instrument, as well as the correct procedures for horizontal and vertical angle observations. Students prepare drawings and maps from their field notes.

CIT 105

- **STATICS FOR TECHNICIANS**

Credits: 3 (3-0)

Prerequisite(s): MCT 101, MAT 129 or MAT 129A

Practical study of statics for the engineering technology student. Topics include: force system resultants, force system equilibrium, load analysis of structural trusses and frames, cross-sectional area properties, centroid, moment of inertia, radius of gyration and polar moment of inertia. Use of the TI-86 calculator or approved equivalent is required for the solution of several types of problems.

CIT 125

- **CONSTRUCTION ESTIMATING**

Credits: 2 (0-4)

An introduction to drawing and quantity takeoff with related material and labor costs used in the construction industry. Students will examine and interpret construction drawings to determine quantities and related costs of materials and labor. Topics will include: area and volume calculations, use of engineering scales, material costs, labor costs, overhead and profit. Laboratory projects reinforce the lecture material and emphasize proper estimating procedures and format. The students will be exposed to Microsoft Excel in preparation of the material and cost summaries. Students will prepare a quantity estimate for a small construction project. Basic discussions will be presented for cost estimating of residential and commercial construction projects. Unit cost estimating will be incorporated in the proposed estimate. Specifications and specification standards will be reviewed as set forth by the CSI.

CIT 126

- **ADVANCED CIVIL DRAWING/CAD II**

Credits: 3 (1-4)

Prerequisite(s): MEC 123

A study and execution of drawings encountered in civil and construction engineering. Topics include: structural steel fabrication, reinforced concrete drawings, plot plans and customization of the AutoCAD menu system. Drawings will be generated using surveyor's notes and calculations associated with horizontal and vertical control survey plans, deed plans and topographical plans. All drawing are developed using AutoCAD software. Students will use Land Development CAD and the Architectural Desktop to facilitate creating these drawings. The completion of a comprehensive final project is required.

CIT 151

- **URBAN AND SUBURBAN DEVELOPMENT**

Credits: 3 (3-0)

Prerequisite(s): CIT 205

Land use planning, zoning and planning boards, general building codes, local control surveys, land data systems, subdivision design, professional land planning systems.

CIT 203

- **STRENGTH OF MATERIALS**

Credits: 4 (3-3)

Prerequisite(s): CIT 105

The study of strength of materials with emphasis on practical applications. Topics include: axial stress and strain, material properties, torsion stress and strain, shear and moment diagrams, bending shear stresses, beam design, theoretical and specification column analysis and design, connection analysis and combined stresses using Mohr's Circle. Weekly laboratory experiments and formal written reports are used to reinforce lecture material. Students are required to present one oral presentation during the semester. Graphical calculator required.

CIT 205

- **CONSTRUCTION SURVEYING II**

Credits: 3 (2-2)

Prerequisite(s): CIT 104

A continuation of Construction Surveying I with emphasis on the methods of layout construction projects. Topics include: traverse computations and adjustment; control surveys for topography, N.J. State Plane Coordinates: horizontal and vertical curve calculations and stakeout methods, radial stakeouts; pipeline and utility stakeouts, road and street stakeouts; building stakeouts, earthwork calculations and Right of Way acquisition computations. Laboratory exercises demonstrate and reinforce these topics. Computer software is available to aid in the computations.

CIT 212

- **WATER RESOURCES TECHNOLOGY**

Credits: 3 (2-2)

Prerequisite(s): CIT 105 and MAT 129B or MAT 129

Study of hydrology and hydraulics as they relate to storm water generation and collection; wastewater collection and treatment and water treatment and distribution systems. Lectures include: hydrology and runoff; groundwater; pipeline hydraulics; open channel hydraulics; wastewater treatment; pump selection; reservoir and detention design; drainage structures; water pollution and flood control. Laboratory exercises consist of design projects such as storm water collection system, sanitary sewer list station, culvert, drainage channel, detention pond, backwater curves and water distribution system. Computer software is available to aid in the design calculations.

CIT 216

- **SOIL MECHANICS**

Credits: 3 (2-2)

Prerequisite(s): CIT 105

Basic study of soils as a material in building construction and environmental projects. Topics include: index properties, soil classification, soil moisture, shear strength, stress analysis, lateral earth pressure, compaction and stabilization and settlement and consolidation. The laboratory will provide sieve analysis, shear strength of soils, relative density, proctor compaction and consolidation and complete testing of concrete cylinders.

CIT 217

- **STRUCTURAL DESIGN**

Credits: 4 (4-0)

Prerequisite(s): CIT 203

Practical Applications of strength of materials using the American Institute of Steel Construction (AISC) manual in allowable stress design and American Concrete Institute (ACI) manual for reinforced concrete design. Topics include: Principles of structural design for steel and reinforced concrete; steel framing analysis and design; reinforced concrete beam, girder, column and footing design.

CIT 218

- **STEEL DESIGN**

Credits: 3 (3-0)

Prerequisite(s): CIT 203

Practical application of steel design using the LRFD (Load and Resistance Factor Design) procedure as governed by the American Institute of Steel Construction. Topics include principles of structural design and analysis using steel as the primary building material. Analysis and design of steel members, such as beams, girders, columns and connections is studied using the principles of statics. A study of framing and load analysis will be done for various loading conditions.

CIT 219

- **REINFORCED CONCRETE DESIGN**

Credits: 3 (3-0)

Prerequisite(s): CIT 203

Practical application of concrete design using the strength design procedure as governed by the American Concrete Institute. Topics include: principles of structural design using reinforced concrete as the material and concrete framing systems using beams, frames, girders and footings as the primary structural elements.

CIT 252

- **BOUNDARY LAW**

Credits: 3 (3-0)

An introductory course which analyzes elements of boundary law, consisting of legal research, evidence, procedures and the synthesis needed for the surveying of land.

CIT 260

- **CIVIL/CONSTRUCTION DESIGN PROJECT**

Credits: 2 (1-2)

Prerequisite(s): CIT 125, CIT 203 and CIT 205

Corequisite(s): CIT 212, CIT 217

Students working in teams integrate their knowledge of theoretical concepts and practical applications of estimating, surveying, hydrology, hydraulics and structural design to complete a comprehensive design project. Oral presentation and a technical report are required.

COMMUNICATION

COM 105

- **INTRODUCTION TO COMMUNICATION STUDY**

Credits: 3 (3-0)

Surveys the field of communication studies, including the production, transmission and reception of messages among persons, groups, organizations and cultures.

COM 110

- **INTERPERSONAL COMMUNICATION**

Credits: 3 (3-0)

Prerequisite(s): COM 105

This course explores the ways people interact verbally and nonverbally and introduces the basic theories and modes of interpersonal communication as well as relationship development. Interpersonal contexts will be examined including initial encounters, friendships, marriage, family and professional settings. Activities include participation in groups, pairs and interactive communication situations.

COM 115 GE DIV

- **INTERCULTURAL COMMUNICATION**

Credits: 3 (3-0)

This course provides a general orientation to and overview of the communication between cultures. The emphasis will be upon offering insight into how cultural differences and similarities impact upon the relationship between culture and communication. The focus will deal with the challenges of communication in a culturally diverse society and offer techniques for improving communication between members of different cultures.

COM 120

- **INTRODUCTION TO PUBLIC RELATIONS**

Credits: 3 (3-0)

Prerequisite(s): ENG 121

This introductory course explores the field of public relations, emphasizing the evolution, role, function and scope of public relation in American society. The course will include organizing programs and using the print and electronic media to implement such programs. Students will be exposed to staple writing activities such as news releases, brochures and pitch letters.

COM 121

- **MASS COMMUNICATION STUDY**

Credits: 3 (3-0)

Prerequisite(s): COM 105

A survey of the institutions, history and technology of the mass communication media, concentrating on radio, television, film and other electronic and print media forms. Topics include the growth of print and electronic media and the relationship among government, media and the public, including the social responsibility and ethics of mass communication.

COM 131

- **INTRODUCTION TO BROADCASTING**

Credits: 3 (3-0)

Prerequisite(s): COM 105

A comprehensive introduction to the historical development and regulatory policies of radio and television broadcasting. Emphasizes the social, economic and ethical impact of radio and television on society and its citizens.

COM 208

- **COMMUNICATION SEMINAR AND FIELD EXPERIENCE**

Credits: 3 (1-12)

Prerequisite(s): Written permission of the department chairperson and Counseling and Career Services Office

A cooperative program whereby the student may gain experience in a communication-related position in radio, television or public relations in order to gain some of the practical experience necessary for growth and success. Supervision of this departmentally approved position is provided by the College through on-the-job visits and individual progress review related to the position in order to effect the attainment of specific competencies. Students attend a bi-weekly two-hour seminar on campus and work a minimum of 180 hours per semester.

COM 210

- **RADIO BROADCASTING PRODUCTION**

Credits: 3 (3-0)

Classroom and studio practice in the preparation and presentation of radio materials including writing, announcing, newscasting, interviewing, musical and dramatic programming. Practical concerns involve studio recording techniques, editing of audio tapes and program organization and management. The emphasis is on effective communication and ethical and aesthetic values in a production setting. Hands-on experience with equipment conducted in the campus radio studio, WMCC.

COMPUTER SCIENCE

CSC 105 GE MST

COMPUTER APPLICATIONS AND SYSTEMS

Credits: 3 (3-0)

This course defines computers and computer applications and their use in business, industry and government. Students completing this course will be computer fluent. Students will understand the capabilities and limitations of computers and know how to use them. In addition, students will understand computers and their ethical, legal and societal implications. Topics include the history of computers, hardware devices, software programs, terminology, privacy of information, ethical behavior and the influence of computers on people and society. Hands-on experience includes: using a Windows operating system, a word processor, designing and implementing spreadsheets and producing presentations. This course is recommended for anyone who will be involved with computers and the use of computer application software.

CSC 106 GE MST

INTERMEDIATE PC APPLICATIONS WITH PROGRAMMING

Credits: 3 (1-4)

Prerequisite(s): CSC 105 or CSC 107 or BUS 107 or MCT 101 or one year of high school computer applications or programming course and MAT 014 or appropriate score on the college placement test

This course introduces students to a problem solving approach to computer applications through the use of spreadsheets, database, presentation manager, a programming language and Internet skills. It emphasizes Visual Basic and Microsoft Excel, in addition to surveying fundamental computer concepts and is designed for students who already possess a familiarity with computer applications. It is recommended for students planning to transfer to an upper division college that has a computer programming requirement in its computer literacy course. This course is suitable for liberal arts, science transfer and business transfer students who wish to transfer to a university and complete their bachelor's degree.

CSC 107

COMPUTERS IN HEALTH TECHNOLOGIES

Credits: 1 (0-2)

Presents a survey of computer applications and their use in the health technology fields. Discusses the major components of a computer, instructs in the use of software application packages including word processing and database and exposes a student to a personal computer operating system. Students gain experience using Microsoft Office.

CSC 108

INTRODUCTION TO INTERNET APPLICATIONS

Credits: 2 (2-0)

Prerequisite(s): CSC 105 or CSC 106 or CSC 107 or BUS 107

Develops the skills needed to effectively use and configure modern Internet applications including electronic mail user agents, web browsers, web search engines, HTML editors and other applications through hands on exercises. An introduction to client/server architecture and the TCP/IP protocol suite is also included. This course develops the skills a student needs for working at a computer help desk, for taking an online course, or for using the Internet effectively.

CSC 109

BASIC PROGRAMMING AND SYSTEMS

Credits: 3 (2-2)

Prerequisite(s): Two years of high school algebra or MAT 013 or appropriate score on the college placement test

Covers the history, art and discipline of computer programming and problem solving techniques using the BASIC language and the implications for change in the present and future of society. Major emphasis is on problem solving using computers from a personal and professional point of view. Topics include top-down programming design, structural control logic, elementary data structures and sequential file handling.

CSC 110

MICROCOMPUTER OPERATING SYSTEMS AND ARCHITECTURE

Credits: 3 (2-2)

Prerequisite(s): CSC 105 or CSC 106 or BUS 107

This course will teach students the role of microcomputer operating systems and how the operating systems interact with the computer. The course covers the structure and function of hardware including input/output devices, memory, central processing unit, storage devices, communications devices and buses. The commonly used microcomputer operating systems Windows and DOS will be discussed and emphasized with hands-on exercises covering topics including: disk maintenance, directory and file management, batch files, interaction of graphical user interface and utilities. Configuration and optimization of standard hardware and system software will also be discussed. Upon successful completion of this course, the student will be prepared to take the associated A+ test.

CSC 116

INTRODUCTION TO INFORMATION SYSTEMS SECURITY

Credits: 3 (3-0)

Prerequisite(s): CSC 105 or CSC 106 or BUS 107

Introduces the student to the field of information security. The managerial, legal, ethical and technical aspects of information security are covered. Students will learn about the need for information security, planning for security and risk management. The function of firewalls, virtual private networks, intrusion detection systems, cryptography and access control mechanisms will be discussed. Physical security and the role of personnel in properly executing security standards and controls are also covered.

CSC 125

WEB MARKUP LANGUAGES

Credits: 3 (2-2)

Prerequisite(s): CSC 133 or CSC 161 and MAT 014

Focuses on using the markup languages HTML and XML to create Web documents. HTML will be used to produce Web Pages and XML will be used to produce documents that are in a portable form, suitable for electronic data exchange. Other extensions and supplements to these languages such as Cascading Style Sheets (CSS), XHTML, schema languages (DTD and XML schema) and translating tools (XSL) will be covered.

CSC 126

HELP DESK CUSTOMER SERVICE

Credits: 3 (3-0)

Prerequisite(s): ENG 121 and CSC 105, or CSC 106, or BUS 107

This course covers essential customer service skills needed by a computer help desk attendant in a hands-on setting. The roles, processes and events in the field of customer service are practiced. An overview of customer service is included, as well as specific skills including telephone, writing and conflict resolution.

CSC 127

- **HELP DESK OPERATION**

Credits: 3 (3-0)

Prerequisite(s): CSC 126

This course introduces students to the computer help desk field and the concepts and procedures needed to run a successful computer help desk. Experience is gained in help desk roles, processes, tools, performance measures and settings through hands on exercises. Computer help desk careers, certifications and resources are also presented. Students will use a technical knowledge base.

CSC 130

- **COMPUTERS, SOCIETY AND ETHICS**

Credits: 3 (3-0)

Prerequisite(s): ENG 121

No invention in history has had as much impact on the fabric of society as the computer and no one technological device is so pervasive within all job structures in industry. Because of the growing ubiquity of computers and the relative ease with which one individual can affect massive number of people, it is extremely important that everyone understand the impact of computers on society and be able to make ethical decisions with respect to the use and deployment of information with respect to software, hardware and various types of computer systems.

CSC 133

- **INTRODUCTION TO COMPUTER SCIENCE USING C++**

Credits: 4 (3-1-2)

Prerequisite(s): MAT 014 or appropriate score on the college placement test

This course presents an introduction to programming and problem solving using an object-oriented programming language C++. Algorithm development and basic problem solving techniques are introduced. Fundamental topics of computer programming including sequence, selection, repetition, input/output, functions, parameter passing, scope, lifetime and arrays are discussed in detail. This is the first major course in Computer Science and is required of all students pursuing a degree in any of the three options offered by the department. The course is also recommended for students in other programs seeking a rigorous introduction to computer programming.

CSC 134

- **OBJECT-ORIENTED PROGRAMMING USING C++**

Credits: 4 (3-3)

Prerequisite(s): CSC 133 and MAT 116 or MAT 129 or MAT 129A

This course builds on the C++ foundation developed in CSC 133 and is the second core course required for students in the Computer Information Systems General Option program. It discusses the software engineering principles of encapsulation and reuse, and how they lead to abstract data types. The object oriented programming features of classes, inheritance, polymorphism and composition are covered, along with the C++ features of constructors and operator overloading. Students implement programs using these features in the C++ programming language.

CSC 160

- **INTRODUCTION TO UNIX FOR WEB DEVELOPMENT**

Credits: 3 (3-0)

Prerequisite(s): CSC 133 or CSC 161 and MAT 014

An introduction to the UNIX Operating System and its use for web server administration. Presents the UNIX file system, text editing, basic UNIX commands and the creation of simple shell programs. Web server concepts are introduced and the Apache web server is installed and configured.

CSC 161

- **INTRODUCTION TO COMPUTER SCIENCE USING JAVA**

Credits: 4 (3-3)

Prerequisite(s): MAT 014 or appropriate score on the college placement test

This course presents an introduction to programming and problem solving using Java. Algorithm development and basic procedural and object-oriented problem solving techniques are introduced. Fundamental topics of computer programming including sequence, selection, repetition, input/output, methods, parameter passing, scope, lifetime, and arrays are discussed in detail. Basic concepts of object-oriented programming such as objects, classes and class methods are introduced. This course is required of all Computer Science transfer students. The course is also recommended for students in other programs seeking a rigorous introduction to computer programming.

CSC 162

- **OBJECT ORIENTED PROGRAMMING USING JAVA**

Credits: 4 (3-3)

Prerequisite(s): CSC 161 and MAT 129 or MAT 129A

This course builds on the Java foundation developed in CSC 161 and is the second core course required for students in the Computer Science Transfer program. It investigates the software engineering principles of encapsulation, information hiding and code reuse, and discusses how these concepts are used to build abstract data types. The object oriented programming features of classes, inheritance, polymorphism and composition are studied, along with constructors and method overloading. Students implement Java programs incorporating features from the Java programming language.

CSC 165

- **BEGINNERS C-PROGRAMMING**

Credits: 3 (2-2)

Prerequisite(s): MAT 013 or MAT 013B

Covers the syntax and semantics of the “C” programming language including: data types, operators, control structures, functions program structure, pointers, array, structures, input and output. Students complete programs in “C” of moderate complexity on the UNIX system.

CSC 166

- **C++ PROGRAMMING**

Credits: 3 (2-2)

This is an introductory programming course using the C++ programming language. Students are introduced to algorithm development and problem solving techniques. Fundamental topics of computer programming are discussed, including: data types, operators, input/output, arrays, and control structure (such as: selection, repetition and functions). No previous programming experience is required. This course is required for engineering technology students. Computer science majors may not take this course.

CSC 200

- **NETWORKING TECHNOLOGIES**

Credits: 3 (3-0)

Prerequisite(s): CSC 110

This course will provide the student with a thorough understanding of the basic concepts of data communications, networking and connectivity. This includes the topics covered in the Novell Networking Technologies course and the topics covered in the Microsoft Networking Essentials course. Upon successful completion of this course, the student will be prepared to take the associated A+ certification test.

CSC 205

■ **COMPUTER SCIENCE WORK EXPERIENCE I**

Credits: 3 (1-12)

Prerequisite(s): Completion of all courses in first year of CIS or Network Administration option and written permission of the department chairperson and Counseling and Career Services Office

A cooperative work experience program whereby the student is employed in a computing/information systems position in order to gain some of the practical experience necessary for success in the computing field. Supervision of this departmentally approved position is provided by the College through on-the-job visits and individual progress review sessions. Students are required to describe their objectives and attain specific job skills. Students attend a bi-weekly two-hour seminar on campus and work a minimum of 180 hours per semester. *The individual must be selected by the cooperating employer and recommended by the chairperson of the Computer Science Department.*

CSC 206

■ **COMPUTER SCIENCE WORK EXPERIENCE II**

Credits: 3 (1-12)

Prerequisite(s): CSC 205 and written permission of the department chairperson and Counseling and Career Services Office

Continuation of CSC 205 to include practical experience in the organization and operation of Information Technology departments. A term project is required that discusses the working experiences and learning objectives of the students and is presented to the class.

CSC 208

■ **VISUAL BASIC PROGRAMMING**

Credits: 4 (3-3)

Prerequisite(s): CSC 106 or CSC 133 or CSC 161

This course studies the Visual BASIC programming language, presenting top-down structured programming, visual interface design and implementation, functions, procedures, arrays, data file access methods, graphics programming and database access programming. Hands-on experience with event-driven programming for an interactive Graphical User Interface under Windows will be introduced. The creation and customizing of forms, controls (menu bars, scrolling list boxes, buttons, arrays of controls), their properties and their underlying BASIC programs (methods) will be studied. Error-handling routines and advanced debugging techniques will be used to produce reliable programs.

CSC 211

■ **PROGRAMMING IN JAVA**

Credits: 4 (3-3)

Prerequisite(s): CSC 134 or CSC 162

Students will learn to design, write, compile, test and execute Java programs. Students will create both stand alone and client/server applications using the Java programming language. Enhancement of website functionality and embedding Java Applets in HTML code will be taught. Platform independent graphical user interfaces will be built using Java's Abstract Windowing Toolkit (AWT).

CSC 225

■ **SYSTEMS ANALYSIS**

Credits: 3 (2-3)

Prerequisite(s): CSC 134 or CSC 162

Students plan an application project and produce a complete specification using structured analysis techniques. On-line applications are surveyed in both large (IBM) and small (UNIX) environments.

CSC 230

■ **MULTIMEDIA PRODUCTION AND AUTHORING TOOLS**

Credits: 4 (3-2)

Prerequisite(s): CSC 110 (Recommended - MAD 121)

Teaches students how to incorporate the multimedia components of graphics, text, video, animation and sound into an interactive presentation. Topics discussed include the hardware and software needed to author multimedia titles and the design of multimedia projects. Students get hands-on experience with leading software and author their own multimedia presentations.

CSC 233

■ **COMPUTER ARCHITECTURE AND ASSEMBLY LANGUAGE I**

Credits: 4 (3-2)

Prerequisite(s): CSC 133 or CSC 161

This course teaches the fundamentals of computer architecture and assembly language programming. Topics include data representation, binary arithmetic, program flow, indexing, addressing and subprogram development. Programs will be developed and run in a assembly language.

CSC 234

■ **COMPUTER ARCHITECTURE AND ASSEMBLY LANGUAGE II**

Credits: 4 (3-2)

Prerequisite(s): CSC 233

This is a continuation of CSC 233, including a systems view of linking programs, the functions of operating system modules (the linkage editor, loaders, control program, interrupt handlers device drivers, etc.), virtual storage concepts and command languages. Programs are written in IBM Assembly language. The computer organization topics include an overview of computer systems organization (processor, memory, I/O and interrupt handling), the digital logic level, the machine level and the operating system level.

CSC 235

■ **DATA STRUCTURES**

Credits: 4 (3-3)

Prerequisite(s): CSC 134 and MAT 116 or MAT 129 or MAT 129B

This course teaches different techniques of storing, accessing and processing data as utilized in the development of programs and algorithms. Topics include linked lists, stacks, queues, trees, recursion and graphs. Algorithms for applications such as sorting, searching and merging will be analyzed and implemented. Solutions are designed using object-oriented techniques and implemented in the C++ programming language. This course is the third course in the C++ programming sequence and is a required course for students in the Computer Information Systems General Option.

CSC 236

■ **DATA STRUCTURES IN JAVA**

Credits: 4 (3-3)

Prerequisite(s): CSC 162 and MAT 129 or MAT 129B or written permission of the department chairperson

This course teaches different techniques of storing, accessing and processing data as utilized in the development of programs and algorithms. Topics include linked lists, stacks, queues, trees, recursion and graphs. Algorithms for applications such as sorting, searching and merging will be analyzed and implemented. Solutions are designed using object-oriented techniques and implemented in the Java programming language. This course is the third course in the Java programming sequence and is a required course for students in the Computer Science Transfer Option.

CSC 239

- **DATABASE CONCEPTS**

Credits: 3 (2-3)

Prerequisite(s): CSC 133 or CSC 161

This course will provide the student with a thorough understanding of what a database is and how it is used. Emphasis will be placed on the relationship and use of a database for the effective storage and retrieval of user data. The use of structured query language (SQL) will be presented. Hands-on laboratory experience will provide the student with practical applications in the use of databases.

CSC 241

- **WEB PROGRAMMING**

Credits: 4 (3-3)

Prerequisite(s): CSC 134 or CSC 162

This course will provide students with the information necessary to develop web sites using HTML, CSS, JavaScript, CGI and Perl. Client side processing in JavaScript and server side processing in Perl and CGI will be used in hands-on projects to create dynamic web pages and process form data. Students will also develop web pages with links, images, tables, forms and stylesheets.

CSC 243

- **ADVANCED PROGRAMMING IN "C"**

Credits: 3 (2-3)

Prerequisite(s): CSC 165

Covers advanced topics in program design, testing and modular integration. Presents "C" programming language and its use to implement programs of moderate difficulty in a UNIX* environment. Topics include data types, control structures, functions, pointers, arrays, structures, UNIX* system interface, readability, efficiency, portability and tools for software development.

CSC 244

- **C++ FOR C PROGRAMMERS**

Credits: 4 (3-3)

Prerequisite(s): CSC 243

Introduces the concepts underlying object-oriented programming. Topics include abstract data types, classes and objects, inheritance, polymorphism and operator overloading. Students use these features in programs implemented using the C++ programming language. Students also learn how to use existing class libraries provided with the C++ compiler as basic building blocks to create more complex programs. Designed for students who have a strong background in "C" programming.

CSC 245

- **UNIX AND SHELL PROGRAMMING**

Credits: 4 (3-3)

Prerequisite(s): CSC 133 or CSC 161

This course introduces the basic concepts of the UNIX operating system including the UNIX file system, shell programming and process management. Features of the UNIX shell are explored, including: input and output redirection, pipes, variable and filename substitution, and shell and environmental variables. Regular expressions are covered. Students learn a POSIX compliant shell and develop the ability to use shell utilities and editors and create shell programs of moderate difficulty.

CSC 246

- **UNIX AND WEB SERVER ADMINISTRATION**

Credits: 3 (2-3)

Prerequisite(s): CSC 245

Builds on the basic understanding of UNIX and shell programming developed in CSC 245. UNIX is the dominant operating system of Internet routers and Web servers. This course covers the essential elements of designing a client/server UNIX configuration, installing it, and keeping it running in an effective fashion. Local Area Networks (LANs), Wide Area Networks (WANs) and the TCP/IP protocol suite are a fundamental part of the UNIX client-server configuration and are fully covered. The installation of UNIX applications is also covered, with electronic mail tools and Web browsers as primary examples of these applications. The emphasis is on serving UNIX client/server needs on a global basis as occurs in a modern multinational corporation.

CSC 248

- **PC SERVICE AND SUPPORT**

Credits: 3 (2-2)

Prerequisite(s): CSC 110 and CSC 200

This course will provide students with the knowledge necessary to support and service a PC. Cabling, network interfaces, storage devices, and other network hardware components will be studied. Hardware and software installation, troubleshooting, and the use of network diagnostic and repair utilities will also be examined. Students conduct research on hardware and software issues using the Web. Students learn to debug printing problems. Upon successful completion of this course, the student will be prepared to take the associated certification test, such as Microsoft Certified Professional or A+ Hardware.

CSC 251

- **WINDOWS WORKSTATION ADMINISTRATION**

Credits: 3 (2-2)

Prerequisite(s): CSC 200

Provides students with the knowledge and skills necessary to perform day-to-day administration in a Windows-based network. Topics include creating and administering user and group accounts and policies, profiles and synchronization, managing resources, auditing, setting up and maintaining the printing environment, internet connection firewall, remote desktop protocol, remote installation, security zones, and wireless and mobile computing. Hands-on exercises will enable the student to implement the tasks necessary to become a Windows administrator in a Microsoft Active Directory environment. Upon successful completion of this course the student will be prepared to take the associated Microsoft certification test.

CSC 252

- **WINDOWS SERVER ADMINISTRATION**

Credits: 3 (2-2)

Prerequisite(s): CSC 251

Provides a foundation for systems administration of servers in a Windows Server-based network. Topics include the network architecture, server installation and configuration, physical and logical storage devices, active directory and domain management of users, groups, and computer accounts, resource security, remote administration systems monitoring and performance, network printing, Internet web services and disaster recovery implementation. Hands-on exercises are provided to allow the student to perform the above-mentioned tasks. Successful completion of this course will prepare the student to take the associated certification test.

CSC 258

■ **COMPUTER FORENSICS**

Credits: 3 (3-0)

Prerequisite(s): CSC 116 and CSC 245 or written permission of the department chairperson

This course introduces students to the field of computer forensics. Students will learn the procedures and tools of the computer forensics field as related to corporate, civil and criminal investigations, including EnCase, DriveSpy and freeware. Data acquisition, analysis and preservation techniques will be covered. Both corporate and criminal case studies will be discussed. Linux, DOS and Windows operating system environments will be covered.

CSC 261

■ **INFORMATION TECHNOLOGY MANAGEMENT**

Credits: 3 (3-0)

Prerequisite(s): CSC 133 or CSC 161 and CSC 200 and ENG 121

This course covers the technical and managerial issues involved in managing the information technology environment of an organization including: computer and network architecture, telecommunications, databases, operations, systems development and strategic planning. Students will investigate a broad range of managerial issues as well as the relationship between technical and managerial strategies.

CORRECTION ADMINISTRATION

(For related courses, see Criminal Justice)

COR 201

■ **INTRODUCTION TO CORRECTION ADMINISTRATION**

Credits: 3 (3-0)

Prerequisite(s) or Corequisite(s): CJU 123

Examines the vast spectrum of systems, processes and people involved in the correctional field. Emphasizes the legal impact of the correctional process as well as correctional management theories and applications. Particular attention will be given to the massive changes of modern correctional facilities and emerging prison issues such as overcrowding, drugs and the AIDS problem.

COR 207

■ **CORRECTIONAL INSTITUTIONS**

Credits: 3 (3-0)

Prerequisite(s) or Corequisite(s): CJU 123

Provides a thorough examination of the major issues that correctional institutions must deal with daily as well as the long term effects of decision and policy making. Particular attention given to treatment programs, their uses and limitations. Provides an overview of the past and current status of penal servitude. Explains the lifestyle of the offender in correctional facilities and evaluates efforts to integrate the institutional experience with the post-release life of the inmates.

COR 280

■ **CORRECTIONS EXTERNSHIP**

Credits: 3 (2-6)

Prerequisite(s) or Corequisite(s): COR 201 or COR 207

A cooperative work experience program in which students enhance their skills by getting hands-on experience in county or state correctional facilities. Supervision of this departmentally approved position is provided by the College through on-the-job visits and individual progress review sessions. Students are required to describe their objectives and attain specific job skills. Students attend a biweekly, two-hour seminar on campus and work a minimum of 180 hours a semester.

COUNSELING AND CAREER SERVICES

CPS 041

■ **STRATEGIES FOR SUCCESS**

Credit equivalent(s): 3 (3-0)

First course in a two-semester sequence for students in Project Connections. (The second course is SSD 101.) Provides an opportunity for students to learn strategies for academic success and to plan for successful transitions in career and education. Focuses on a better understanding of LD issues and self-advocacy, to become familiar with the Adaptive Lab equipment, to set career and educational goals and design strategies to accomplish them.

CRIMINAL JUSTICE

(For related courses, see Correction Administration and Police Science)

CJU 123

■ **CRIMINAL JUSTICE I**

Credits: 3 (3-0)

Examines both the substantive and procedural criminal law with a special focus on the administration of justice. Particular attention will be given to the role of the police, courts and correctional systems and how each separate entity must function with the framework of Constitutional law. Special emphasis will be on New Jersey statutory law and court rules.

CJU 124

■ **CRIMINAL JUSTICE II**

Credits: 3 (3-0)

Prerequisite(s): CJU 123

A continuation of Criminal Justice I. Particular emphasis on the New Jersey court system including detailed discussions of the role of prosecutors versus defense attorneys; pretrial, trial and post-trial functions and the constant influence of ethical considerations.

DANCE

DAN 131

■ **ELEMENTS OF DANCE**

Credits: 3 (3-0)

Provides fundamental movement skills and body awareness in modern dance, basic training at the elementary level of ballet technique, introduction to a cross section of jazz technique, movement styles and rhythms, theory and practical application in the principles of dance forms. Additional focus will be on the ethnicity (African roots) in jazz, modern dance as the American dance form and ballet based on European (French, Russian, Italian) techniques. Emphasizes placement, strength, flexibility, coordination, musicality within the different dance idioms; the exploration of space, time and energy as the raw materials in dance; the specific vocabulary relating to the different dance techniques and the creative experience of short movement patterns.

DAN 132 GE HUM

■ **DANCE APPRECIATION**

Credits: 3 (3-0)

Designed to inform the student about dance as a performing art, through the critical evaluations of the various dance styles. An examination of dance in world cultures will also be included; especially the cross-cultural contribution of dance. Discusses the role and collaboration of performers/dancers, choreographers, artistic advisors, composers, technicians and the audience. Includes lectures, lecture-demos, discussions, selected readings, films, video tapes, slides, live performances and experimental dance/movement sessions. Attendance at recommended dance performances is required. Written reports are required.

DAN 201

- **METHODS AND MODERN TECHNIQUES IN DANCE**

Credits: 3 (3-0)

Provides development in Modern Dance through theory and practical application. Emphasizes the practice of composition skills, clarity of movement, initiation, body articulation and dynamics of performance. Focuses on the development of small group work and solos, including form and structure. Attendance is required at two professional dance productions. Written reports must be submitted.

DAN 202

- **IMPROVISATION AND COMPOSITION**

Credits: 3 (3-0)

A comprehensive approach, introducing the creative and theoretical aspects of contemporary dance, with focus on improvisation toward composition. Dance studies will be designed through problem-solving experiences, exploration of resources, use of ideas, knowledge of forms, development of craft. Emphasizes the excitement of making choices and taking chances. Studies will be performed as works in progress at the end of semester (informal showing, individual or group). Class sessions will include lectures, films, discussion, selected readings on theory, philosophy, current trends of dance and experimental dance/movements.

DENTAL HYGIENE

DHY 102

- **DENTAL RADIOLOGY**

Credits: 2 (1-2)

The nature, production and utilization of x-rays as theoretical and technically related to dentistry. Exposure, processing and mounting techniques as well as film interpretation. Introduction to hazards and safeguards.

DHY 105

- **ORAL ANATOMY AND HISTOLOGY**

Credits: 4 (3-4)

Detailed anatomical and histological study of the oral cavity. Emphasis on the teeth and related bones, muscles, nerves, glands and blood vessels. Didactic materials are supplemented by laboratory exercises.

DHY 107

- **PREVENTIVE ORAL HEALTH SERVICES I**

Credits: 4 (2-6)

Introduction to primary dental hygiene services. The basic sciences are related to the performance of such services as taking the medical and dental history oral inspection, scaling and polishing teeth and patient education. Didactic materials are supplemented by laboratory and clinical exercises. May not be audited.

DHY 108

- **PREVENTIVE ORAL HEALTH SERVICES II**

Credits: 5 (2-13)

Prerequisite(s): DHY 102, DHY 105 and DHY 107 and current CPR certification

Clinical practice on patients of selected difficulty, encompassing the areas of oral inspection, extra and intra oral radiology, prophylaxis and patient education. Lecture material covers clinic related skills as well as a general reference to the entire scope of practice of this profession. May not be audited.

DHY 111

- **NUTRITION AND ORAL HEALTH**

Credits: 2 (2-0)

Prerequisite(s): DHY 102, DHY 105 and DHY 107

This course is designed to provide the dental hygiene student with an understanding of basic nutrition as it applies to general and oral health. Topics covered include the fundamental biochemical principles of nutrients, nutrient requirements, food sources and related diseases. Students are taught nutritional concepts as they apply to preventive dentistry, emphasizing dietary analysis and counseling for caries susceptible and periodontally involved dental patients. Students are introduced to the evaluation and use of nutritional references and educational materials to enhance patient treatment.

DHY 203

- **GENERAL AND ORAL PATHOLOGY**

Credits: 2 (2-0)

Prerequisite(s): DHY 108, DHY 110, DHY 204 and DHY 205
Corequisite(s): DHY 208

An introduction to the basic principles of pathology. A consideration of common diseases affecting the human body and knowledge of how to correlate basic principles of general pathology to oral diseases and lesions. Special attention focused on abnormal conditions of the oral cavity.

DHY 204

- **DENTAL MATERIALS**

Credits: 2 (1-3)

Prerequisite(s): DHY 102, DHY 105 and DHY 107

A study of the chemical and physical properties of materials most commonly used in dental practice. Includes demonstration and performance of basic laboratory and operatory procedures as related to these materials. Student performance of basic laboratory and operatory procedures related to general dentistry and expanded functions for auxiliaries is an integral part of the course.

DHY 205

- **PERIODONTOLOGY**

Credits: 2 (2-0)

Prerequisite(s): BIO 211, DHY 102, DHY 105 and DHY 107

A detailed study of the periodontium in both the healthy and diseased states. Includes the etiology, histopathology, description and treatment of periodontal disease and emphasizes the dental hygienist's role in initial periodontal therapy.

DHY 207

- **DENTAL HEALTH EDUCATION**

Credits: 2 (2-0)

Prerequisite(s): DHY 108, DHY 110, DHY 204 and DHY 205

Introduces educational concepts, objectives and methodology in dental health instruction at various levels. The materials and methods used in individual and group teaching of dental health are included, preparing the student to teach in a classroom setting, in professional groups and in a variety of community situations.

DHY 208

- **PHARMACOLOGY**

Credits: 2 (2-0)

Prerequisite(s): CHM 107
Corequisite(s): BIO 112, DHY 203, DHY 207, DHY 211, DHY 215

Designed to acquaint the dental hygienist with pharmacology as it relates to the dental office. The classification use and action of drugs will be emphasized. Prescription writing, the importance of the patient's health history and emergency care of adverse reaction will also be included.

DHY 210

- **PUBLIC HEALTH**

Credits: 2 (1-3)

Prerequisite(s): DHY 203, DHY 207, DHY 211 and DHY 215

A basic course in the concept, scope and administration of public health programs. Emphasis on the needs of the population and the role of the dental hygienist within public health practice. Opportunity provided for field experience in analysis and planning of public health education projects.

DHY 211

- **PREVENTIVE ORAL HEALTH SERVICES III**

Credits: 5 (1-17)

Prerequisite(s): DHY 108, DHY 110, DHY 204, DHY 205 and current CPR certification

Continuation of DHY 108 emphasizing more challenging clinical skills. Students develop treatment plans and do more detailed patient assessments. An understanding of medical conditions and complications related to dental treatment is covered in lecture. May not be audited.

DHY 212

- **PREVENTIVE ORAL HEALTH SERVICES IV**

Credits: 5 (1-17)

Prerequisite(s): DHY 203, DHY 207, DHY 211, DHY 215 and current CPR certification

Continuation of DHY 211 with emphasis on improving clinical skills on patients of higher level of difficulty. Prepares students for successful completion of board examinations and employment. May not be audited.

DHY 215

- **ADVANCED PERIODONTOLOGY**

Credits: 1 (1-1)

Prerequisite(s): DHY 108, DHY 110, DHY 204 and DHY 205

Corequisite(s): DHY 208

An expanded study of the principles and concepts of, and current research on, periodontal disease. In this advanced course the evaluation and monitoring of the periodontal disease process; the latest concepts in treatment; immunology; the relationship of periodontics to other dental specialties; and critique of related literature will be discussed. Various guest lecturers will share their expertise with the students.

DHY 224

- **DENTAL HYGIENE SEMINAR**

Credits: 1 (0-3)

Prerequisites: DHY 107, DHY 108, DHY 211

Corequisites: DHY 212

An interdisciplinary capstone course which integrates and synthesizes concepts and skills from preceding dental hygiene courses. Emphasis is on the development and presentation of a clinical case study and preparation for entry into the profession of dental hygiene. Topics include preparation for national and state licensing examinations, development of career portfolios and the discussion of current issues in the practice of dental hygiene and related dental professions.

DIETETIC TECHNOLOGY

DTC 101

- **INTRODUCTION TO DIETETIC TECHNOLOGY**

Credits: 1 (1-0)

An introduction to the organization of food service in health care facilities and the role of the dietetic technician.

DTC 102

- **TOOLS AND TECHNIQUES OF THE NUTRITION CARE PROCESS**

Credits: 1 (1-0)

Prerequisite(s): DTC 101; HRI 103 and HRI 105. Students must have earned a grade of "C" or better in all prerequisites.

Corequisite(s): HRI 108 and HRI 210

An introduction to the total organization of health care facilities, departmental functions and responsibilities, as well as professional and paraprofessional interrelationships.

DTC 208

- **SUPERVISED FIELD EXPERIENCE: NUTRITION CARE**

Credits: 3 (0-9)

Prerequisite(s): DTC 101 and HRI 105 both with a grade of "C" or better

Corequisite(s): DTC 102, HRI 108 and HRI 210

A clinical experience designed to introduce students to the organization of food service in a specific health care facility and to provide an integrated approach to the nutritional care of patients.

DTC 209

- **SUPERVISED FIELD EXPERIENCE: FOODSERVICE SYSTEMS MANAGEMENT**

Credits: 4 (1-9)

Prerequisite(s): DTC 208 and HRI 210 both with a grade of "C" or better

Corequisite(s): HRI 203 and HRI 213

A foodservice systems management experience in a health care facility designed to give students an opportunity to apply classroom theory to quantity food production, patient and employee foodservice and personnel management.

DTC 210

- **SUPERVISED FIELD SERVICE: CLINICAL, COMMUNITY, FOODSERVICE**

Credits: 4 (0-12)

Prerequisite(s): DTC 209, HRI 213 and HRI 218 all with a grade of "C" or better

Corequisite(s): DTC 220 and HRI 205

A clinical experience in acute care, long-term care, school food service and community based nutrition programs designed to emphasize the managerial functions of planning and control in relation to food procurement, inventory management, cost accounting and nutritional management of patients; a culminating experience.

DTC 220

- **SEMINAR IN DIETETIC TECHNOLOGY**

Credits: 1 (1-0)

Prerequisite(s): DTC 209 and HRI 218 both with a grade of "C" or better

Corequisite(s): DTC 210 and HRI 205

Explores the expanding dimensions of the dietetic technician's role in health care, business and industry, school food service, public health, foodservice and research and prepares the student for entry-level positions.

ECONOMICS

ECO 201 GE SS

PRINCIPLES OF ECONOMICS I

Credits: 3 (3-0)

Prerequisite(s): A passing score on the algebra portion of the college placement test or MAT 013

Introduces the foundations of economic analysis and explores the problems of macroeconomics, including national income, equilibrium analysis and fiscal and monetary policy. The public sector of the national economy is also stressed.

ECO 202 GE SS

PRINCIPLES OF ECONOMICS II

Credits: 3 (3-0)

Prerequisite(s): ECO 201 or written permission of the department chairperson

Microeconomics: includes such topics as the price system, allocation of resources, distribution of income and the prospects for economic change. International trade is also studied.

EDUCATION

EDU 121

INTRODUCTION TO EDUCATION

Credits: 3 (3-0)

Analyzes the interaction of culture and education, develops from a historical perspective the evolution of modern education and examines contemporary issues and problems in American education. Students are required to complete a 25-hour volunteer assignment working in a teaching/learning setting.

EDU 207

INTRODUCTION TO EARLY CHILDHOOD EDUCATION

Credits: 3 (3-0)

The physical and mental health needs of young children are considered, as well as curriculum, equipment and learning procedures appropriate for early school years. Studies of current trends and issues in early childhood education are examined with emphasis on established and innovative programs in the field.

EDU 208

CREATIVE ACTIVITIES FOR YOUNG CHILDREN

Credits: 3 (3-0)

An examination of the significance of creative play in the education of young children. Students learn to understand, use and direct activities in art, music and science for preschoolers. Selection and use of audiovisual materials are considered. How young children learn and when they are ready to learn are concepts that this course develops. These concepts provide the rationale for planning creative activity programs.

EDU 210

EDUCATION OF EXCEPTIONAL CHILDREN

Credits: 3 (3-0)

An introduction to the educational programs for exceptional and special learners. Current as well as historical specialized programs and issues. Recent research of special students' needs. Rationale-based strategies and instructional techniques to use with the exceptional population.

EDU 280

EDUCATION FIELD EXPERIENCE

Credits: 3 (3-6)

Prerequisite(s): PSY 226; ENG 122

Observation and analysis of the teaching/learning experience in settings from preschool to high school. Includes observation, research and application of current practices in light of psychological, philosophical and historical theories of education. Requires a research paper and 90 field work hours.

ELECTRICAL ENGINEERING TECHNOLOGY

(For related courses see also Engineering Technology, MCT 101 and MCT 220 Introduction to Robotics and Control Systems)

ELT 105

FOUNDATIONS OF ELECTRICAL AND ELECTRONICS TECHNOLOGY

Credits: 4 (3-3)

Prerequisite(s): MAT 013 or appropriate score on college placement test

Corequisite(s): MAT 014 or higher level

Study of electrical and electronic devices and circuits. Topics include: current and voltage, energy and power, AC/DC and elementary electronic circuits, electrical safety, wiring and electric motors. Computers are used for simulation and analysis of electric circuits. Theory is supplemented by laboratory experimentation.

ELT 110

ELECTRICAL/ELECTRONICS DEVICES AND CIRCUITS

Credits: 4 (3-3)

Prerequisite(s): ELT 105

Corequisite(s): MAT 129A

Continuation of ELT 105. Topics include: Electric circuits theorems, capacitance and inductance type devices, operational amplifier and transistor circuits. Computers are used in the analysis of electric circuits. Theory is supplemented by laboratory experimentation.

ELT 111

DIGITAL ELECTRONICS

Credits: 3 (2-3)

Corequisite(s): MAT 013

A study of a digital electronic circuits and systems. Introduces number system and Boolean Algebra topics. Digital electronic circuits and systems are analyzed and designed. Topics covered are: logic gates, Flip-Flops, registers, counters, arithmetic logic circuits, memories and various logic families.

ELT 210

ELECTRONIC CIRCUITS AND SYSTEMS

Credits: 4 (3-3)

Prerequisite(s): ELT 110

Continuation of ELT 110. Study of time-domain and frequency-domain concepts as it relates to passive and active circuits and systems. Additional topics such as power supply applications, power control and power amplifier circuits are studied. Computers are used for simulation and analysis of electronic circuits. Laboratory experiments are used to supplement the studies of electronic circuits and to verify analytical results.

ELT 221

- **ELECTRIC CIRCUITS I**

Credits: 4 (3-3)

Corequisite(s): MAT 132

An introduction to electric circuit theory. Topics include: the mathematical development, current voltage, resistance, power, passive electrical components, laws of electricity and network theorems. Stresses analysis techniques. Theory is supplemented by laboratory work. *Recommended for engineering students.*

ELT 222

- **ELECTRIC CIRCUITS II**

Credits: 4 (3-3)

Prerequisite(s): ELT 221

A continuation of ELT 221. A study of the phasor concept, AC power, complex frequency, resonance, Fourier analysis techniques, Laplace transforms, polyphase circuits and two port networks. Laboratory experiments supplement theoretical topics.

ELT 223

- **ELECTRONIC DESIGN AND MANUFACTURING**

Credits: 2 (1-3)

Prerequisite(s): ELT 221 and ELT 226

Capstone project course where students will work in teams to design, build, test and present a working prototype project using electronics and embedded computer technology. Students will use schematic capture and printed circuit board layout software. Students will develop concepts and specifications, select component, analyze costs, do scheduling and planning, fabricate and assemble printed circuit boards and prepare a written report and oral presentation.

ELT 224

- **COMMUNICATION ELECTRONICS**

Credits: 3 (2-3)

Prerequisite(s): ELT 210

A study of Electronic Communication Systems. An introduction to signal processing methods, analog and digital modulation techniques, radio receivers, transmitters and microwave principles and antennas.

ELT 226

- **MICROCOMPUTERS**

Credits: 3 (2-3)

Prerequisite(s): ELT 111

A study of the hardware, software, interfacing and programming of a contemporary microcomputer. Students demonstrate the application of the microcomputer through laboratory projects. *For Electrical Engineering Technology students.*

ELT 239

- **DIGITAL/DATA COMMUNICATIONS AND NETWORKING**

Credits: 3 (2-3)

Prerequisite(s): ELT 111

A study of various types of data communication systems including WANS and LANS, system components, network structures and interface techniques are examined. Transmission codes and multiplexing methods are emphasized. Extensive laboratory work includes use of protocol analyzers, installation of networks, hardware and software troubleshooting.

EMERGENCY MANAGEMENT

EMP 100

- **INTRODUCTION TO EMERGENCY MANAGEMENT**

Credits: 3 (3-0)

This course will present a broad overview of the emergency management system. The principles of emergency management, including preparedness, response. mitigation, recovery and associated strategies will be covered. The role of federal, state and local governments as well as private agencies responsible for emergency management will be explored.

EMP 110

- **INTRODUCTION TO BIOTERRORISM**

Credits: 3 (3-0)

This course will elucidate information regarding the impact of domestic and international bioterrorism on people's lives and describe the historical, psychosocial, political and scientific aspects of this mechanism of fear. Emphasis will be placed on understanding the various biological organisms that may be used as weapons of mass destruction, the clinical symptoms of disease, mechanisms of weaponization and public health control measures. The scientific principles presented in the course, governmental response mechanisms, family personal preparedness and effective risk communications will provide the basis for effective personal and family decision making.

ENERGY UTILITY TECHNOLOGY

UTI 101

- **INTRODUCTION TO THE ENERGY UTILITY INDUSTRY**

Credits: 3 (2-2)

Prerequisite(s): MAT 013

Corequisite(s): ELT 105, MAT 107

An overview of the energy utility industry and occupational opportunities, including but not limited to history of providing reliable service, regulatory influences, electric/gas energy flow and basic terminology, typical conditions for employment and career opportunities. *Students must attain a "B" or better in UTI 101 to continue in the program.*

UTI 102

- **FUNDAMENTALS OF GAS COMBUSTION**

Credits: 3 (2-2)

Prerequisite(s): UTI 101 with a minimum grade of "B"

Provides students with the fundamentals of gas combustion, including knowledge and skills to diagnose combustion problems and make the proper adjustments to obtain complete combustion at the rated input using standard tools. *Students must attain a "C" or better in UTI 102 to continue in the program.*

UTI 103

- **FUNDAMENTALS OF POWER ALTERNATING CURRENT**

Credits: 3 (3-0)

Prerequisite(s): UTI 101 with a minimum grade of "B" , ELT 105, MAT 107

To provide participants with fundamentals of the energy utility industry alternating current theory; including, but not limited to, vector analysis of power (KW, KVARS, & KVA), power factor, phase angles, polyphase loads (Wye & Delta) and control of system efficiency. *Students must attain a "C" or better in UTI 103 to continue in the program.*

UTI 104

- **INTRODUCTION TO APPLIANCE SERVICE**

Credits: 7 (6-3)

Prerequisite(s): UTI 102 with a minimum grade of "C" , UTI 103 with a minimum grade of "C"

Provides knowledge and skills to perform piping on residential appliances, utility gas regulators/ meters and gas leak investigation, in accordance with industry standards and D.O.T. Pipeline Operator Qualification.

UTI 105

- **INSIDE PLANT OPERATIONS**

Credits: 7 (6-2)

Prerequisite(s): UTI 102 with a minimum grade of "C", UTI 103 with a minimum grade of "C"

Provides knowledge & skills in electrical energy industry operations of switching stations and substations, including safe work practices/ procedures, terms, one-line diagrams, types of stations, safety tagging, interrupting control prints, basic test equipment and communications.

UTI 106

- **INTRODUCTION TO ENERGY ENGINEERING**

Credits: 5 (4-2)

Prerequisite(s): UTI 102 with a minimum grade of "C" , UTI 103 with a minimum grade of "C"

Provides basic knowledge, skills and technical background in the construction, equipment, practices/procedures, design/layout and typical problems of electrical distribution engineering.

UTI 107

- **INTRODUCTION TO METERING**

Credits: 4 (3-2)

Prerequisite(s) UTI 102 with a minimum grade of "C", UTI 103 with a minimum grade of "C"

Provides fundamental knowledge and skills in the selection, installation and testing for self- continued Watt hour electrical energy measurement.

UTI 108

- **INTRODUCTION TO UNDERGROUND FACILITIES**

Credits: 5 (4-2)

Prerequisite(s): UTI 101 with a minimum grade of "B"

Provides the knowledge & skills to assist with electric utility underground distribution, construction, maintenance and testing, including safe work practices, construction standards, operating practice, testing procedures and competent person qualifications.

UTI 109

- **INTRODUCTION TO GAS DISTRIBUTION**

Credits: 4 (3-3)

Prerequisite(s): UTI 102 with a minimum grade of "C"

Provides the fundamental knowledge and skill to achieve 16 basic operator qualifications necessary for gas utility construction and maintenance in accordance with D.O.T. Pipeline Operator Qualifications regulations.

UTI 110

- **INTRODUCTION TO POWER PLANT OPERATIONS AND MAINTENANCE**

Credits: 6 (5-2)

Prerequisite(s): UTI 101 with a minimum grade of "B" , UTI 102 with a minimum grade of "C", UTI 103 with a minimum grade of "C"

Provides an overview of the electric generation process, power plant systems and functions. Students will obtain the knowledge and skills necessary for safe power plant operation, learn power company philosophy, receive an overview of generating site facilities, interdepartmental responsibilities, proper health, industrial and environmental safety and communication practices.

UTI 201

- **ENERGY UTILITY COOPERATIVE WORK EXPERIENCE I**

Credits: 3 (1-12)

Prerequisite(s): UTI 102 with a minimum grade of "C", UTI 103 with a minimum grade of "C" and one of the following occupational concentration courses: UTI 104, UTI 105, UTI 106, UTI 107, UTI 108, UTI 109 or UTI 110

Students will apply the knowledge & skills learned within the specific occupational concentration while working as part of an energy utility representative associate team. The leaner will be required to complete a guided field experience checklist for the specific occupation.

UTI 202

- **ENERGY UTILITY COOPERATIVE WORK EXPERIENCE II**

Credits: 3 (1-12)

Prerequisite(s): UTI 102 with a minimum grade of "C", UTI 103 with a minimum grade of "C", UTI 201 and one of the following occupational concentration courses: UTI 104, UTI 105, UTI 106, UTI 107, UTI 108, UTI 109 or UTI 110

Students will apply the knowledge & skills learned within the specific occupational concentration while working as part of an energy utility representative associate team. The learner will be required to complete a guided field experience checklist for the specific occupation.

ENGINEERING TECHNOLOGIES

MCT 101

- **INTRODUCTION TO TECHNOLOGY**

Credits: 2 (1-2)

Prerequisite(s): MAT 013 or passing score on the college placement test
Corequisite(s): MAT 014

Introduction to engineering practices through an integration of computer applications with electrical and mechanical components and systems. Activity based learning is accomplished through a variety of hands-on projects. This course is cross-listed in Mechanical Engineering Technology, Electronic/Computer Engineering and Civil/Construction Engineering Technology.

MCT 220

- **INTRODUCTION TO ROBOTICS AND CONTROL SYSTEMS**

Credits: 3 (1-4)

Prerequisite(s): MEC 123, MAT 129 or MAT 129B, ELT 105 and PHY 121

A study of the pneumatic, electrical and mechanical components and drives utilized in robotic and control systems. Topics include kinematics of robotics systems, analog and digital controllers, operations and applications of pneumatic, electrical and mechanical components. Students are required to complete a comprehensive robotic project to include an oral presentation and a technical report. This course is cross-listed in Mechanical Engineering Technology and Electronic/Computer Engineering Technology.

ENGLISH

ENG 009

- **Writing Skills for College I**

Credit equivalent(s): 4 (3-1)

For students whose college placement test scores show they need intensive work to improve their writing abilities. Objectives are designed to develop the ability to write in Standard American English. Instruction is provided in sentence structure, punctuation and usage; students regularly practice writing effective sentences, paragraphs and short essays. Students may have to enroll in ENG 010 after successfully completing ENG 009.
Note: "C" is the minimum acceptable grade for movement from one remedial/developmental level to another and for completion of remediation/ developmental requirements.

ENG 010

- **WRITING SKILLS FOR COLLEGE II**

Credit equivalent(s): 3 (3-0)

Prerequisite(s): Appropriate score on the college placement test or a grade of "C" or better in ENG 009

Designed to improve fundamental skills of Standard American English through the writing of effective sentences, paragraphs and essays and to build confidence in beginning writers. Correct spelling, punctuation and grammar are stressed. *Note: "C" is the minimum acceptable grade for movement from one remedial/developmental level to another and for completion of remediation/developmental requirements.*

ENG 090

- **ENG 010 BRIDGE**

Credit equivalent(s): 1 (2-0)

Prerequisite(s): Essay score of 7

This two-week course provides an opportunity for those students who do not pass the WritePlacer Essay Test to refresh their skills before attempting to retake the test.

ENG 121 GE COM

- **ENGLISH COMPOSITION I**

Credits: 3 (3-0)

Prerequisite(s): A passing score on the college placement test or a grade of "C" or better in ENG 010

Through a variety of writing projects requiring description, characterization, narration, illustration, process analysis, comparison and contrast and definition, as well as through a documented essay, students develop competence writing clear, correct, effective English prose. Extensive reading materials serve as structural models and as the basis for discussion and for the writing of essays involving response, analysis and synthesis. During the course, the student will write between 7,000 and 10,000 words, including drafts and revisions.

ENG 122 GE COM

- **ENGLISH COMPOSITION II**

Credits: 3 (3-0)

Prerequisite(s): A grade of "C" or better in ENG 121

Through writings, reading of essays, short stories and poems and speaking, the student will continue to learn and to practice the skills of clear, correct, effective English. Through a variety of writing projects, requiring techniques such as cause and effect, analysis, evaluation, classification, argumentation and persuasion, as well as through a formal research (library) paper, students will write between 7,000 and 10,000 words, including drafts and revisions.

ENG 125 GE COM

- **ENGLISH COMPOSITION II: WRITING ABOUT LITERATURE**

Credits: 3 (3-0)

Prerequisite(s): A grade of "C" or better in ENG 121

Enables students to continue strengthening academic writing skills while developing an appreciation for literature. By reading, discussing and writing about poetry, short stories, drama and critical essays, students continue to practice skills introduced in English Composition I and learn techniques important to argumentation, critical analysis, literary interpretation and literary research. Various writing projects, including a formal full-length research paper on a literary topic – amounting to between 7,000 and 10,000 words – are required. This course may be substituted for ENG 122 and carries full credit for graduation in all programs.

ENG 205

- **INTRODUCTION TO JOURNALISM**

Credits: 3 (3-0)

Prerequisite(s): ENG 122 or ENG 125 or written permission of the department chairperson

Introduces the prospective reporter to the various forms of journalistic writing, including news and feature stories, editorials and opinion columns. Students learn to recognize, weigh, gather, report and edit the news as they learn to develop, organize and publish their work as professional reporters working on the staff of the College newspaper. In addition, they are introduced to the major historical trends in journalism as well as the ethical and moral issues that journalists face each day as they perform their jobs.

ENG 206

- **JOURNALISM II**

Credits: 3 (3-0)

Prerequisite(s): ENG 205 or permission of department chairperson

An advanced course in journalism emphasizing the development of editorial skills and actual newspaper production. Membership on the school newspaper is required.

ENG 212

- **CHILDREN'S LITERATURE**

Credits: 3 (3-0)

Prerequisite(s): ENG 121

Surveys the field of children's literature. Covers many forms of this literature, both traditional and modern. Attention is given to ways of helping children enjoy literature. It is strongly recommended that all degree students complete ENG 122 or ENG 125 before registering for this course.

ENG 214

- **JOURNALISM/WRITING FIELD EXPERIENCE**

Credits: 3 (3-6)

Prerequisite(s): BUS 205 or ENG 205 or ENG 235 and written permission of the department chairperson and Counseling and Career Services Office
Corequisite(s): ENG 206

A cooperative work experience through which students are employed in a professional writing or journalism position to gain the practical experience necessary for success in the field. Supervision of this departmentally approved position is provided by the College through the instructor's on-the-job visits and individual progress reviews. Students are required to describe their objectives and attain specific job skills. They attend a bi-weekly two-hour seminar on campus and work a minimum of 180 hours during the semester.

ENG 215

- **SCIENCE FICTION**

Credits: 3 (3-0)

Prerequisite(s): ENG 122 or ENG 125 or written permission of the department chairperson

Significant works of science fiction like those of Shelley, Verne, Wells, Huxley, Asimov, Heinlein and Bradbury are read and analyzed. Major topics include science fiction as a literary genre, the advance of technology and its effects on society and the individual and the scientist as evil genius.

ENG 220

- **DETECTIVE FICTION**

Credits: 3 (3-0)

Prerequisite(s): ENG 122 or ENG 125 or written permission of the department chairperson

A study of the 'Who Done It?' as it evolved in America and spread through the world as a popular genre. Students read, analyze and write about crime/mystery fiction with emphasis on the development of the character of the detective. Writers include but are not limited to Poe, Conan Doyle, Hammett, Chandler, Chesterton, Freeman, Bramah, Futrelle, Ross MacDonald, McBain, Christie, Ibarguengoita, Sayers, P.D. James, Robert Parker, Simeon, Sjowall and Wahloo, Rendell, Stribling, Togawa and Vander Wetering.

ENG 221 GE HUM

- **ENGLISH LITERATURE I**

Credits: 3 (3-0)

Prerequisite(s): ENG 122 or ENG 125 or written permission of the department chairperson

Works by major authors in English literature from the Anglo-Saxon period through 1789 are read and analyzed. Authors studied include the Beowulf poet, Chaucer, Shakespeare, Milton, the metaphysical poets, Swift and Blake.

ENG 222 GE HUM

- **ENGLISH LITERATURE II**

Credits: 3 (3-0)

Prerequisite(s): ENG 122 or ENG 125 or written permission of the department chairperson

Works by major authors in English literature from 1789 to the present are read and analyzed. Authors studied include Wordsworth, Shelley, Keats, Tennyson, Browning, Yeats, Joyce and Eliot.

ENG 225 GE HUM GE DIV

- **WORLD LITERATURE I**

Credits: 3 (3-0)

Prerequisite(s): ENG 122 or ENG 125 or written permission of the department chairperson

An introduction to masterpieces of world literature to 1500. A variety of cultural, intellectual, historical and literary perspectives are explored in selections by authors from Asia, Africa and Continental Europe. Students complete reading, writing and research assignments designed to develop the skills of literary interpretation and analysis.

ENG 226 GE HUM GE DIV

- **WORLD LITERATURE II**

Credits: 3 (3-0)

Prerequisite(s): ENG 122 or ENG 125 or written permission of the department chairperson

An introduction to masterpieces of world literature from 1500. A variety of cultural, intellectual, historical and literary perspectives are explored in selections by authors from Asia, Africa, Continental Europe and Latin America. Students complete reading, writing and research assignments designed to develop the skills of literary interpretation and analysis.

ENG 227 GE HUM GE DIV

- **LITERATURE OF BLACK AMERICA**

Credits: 3 (3-0)

Prerequisite(s): ENG 122 or ENG 125 or written permission of the department chairperson

The literature of the Black American from African and Pre-Civil War songs and tales to the writers of the Reconstruction, the early 1900's, the Harlem Renaissance, the WPA Writers-Workshop and the new Black writers of the 1990's.

ENG 228 GE HUM

- **MODERN BRITISH AND AMERICAN POETRY**

Credits: 3 (3-0)

Prerequisite(s): ENG 122 or ENG 125 or written permission of the department chairperson

British and American poets from the time of Dickinson through the 20th century are read and analyzed. Poets studied could include Dickinson, Whitman, Yeats, Frost, Stevens, Eliot, Hughes, Auden, Brooks, Ginsberg, Sexton, Rich and Plath.

ENG 233 GE HUM

- **INTRODUCTION TO THE NOVEL**

Credits: 3 (3-0)

Prerequisite(s): ENG 122 or ENG 125 or written permission of the department chairperson

The novel from its earliest forms to the present. Authors include Fielding, Austen, Dickens, Melville, James, Flaubert, Dostoevsky, Joyce and Faulkner. Works are analyzed in terms of genre, point of view, structure, characterization and theme.

ENG 234

- **INTRODUCTION TO SHAKESPEARE**

Credits: 3 (3-0)

Prerequisite(s): ENG 122 or ENG 125 or written permission of the department chairperson

An introduction to Shakespeare's dramas. Students read, discuss and write about selected histories, comedies and tragedies. Included is a discussion of the Elizabethan theater.

ENG 235

- **CREATIVE WRITING I**

Credits: 3 (3-0)

Prerequisite(s): ENG 122 or ENG 125 or written permission of the department chairperson

A basic course in creative and imaginative writing. Various literary forms are discussed and undertaken by the students. Student manuscripts are extensively analyzed and criticized.

ENG 236

- **CREATIVE WRITING II**

Credits: 3 (3-0)

Prerequisite(s): ENG 122 or ENG 125 or written permission of the department chairperson

A continuation of ENG 235. Various literary forms are discussed and undertaken. Student manuscripts are extensively analyzed and criticized by both students and instructor. Students focus on one major writing project. Various forms, techniques and styles of imaginative writing are discussed via an investigation of professional as well as student writing.

ENG 237

- **ADVANCED WRITING WORKSHOP**

Credits: 3 (3-0)

Prerequisite(s): ENG 122 or ENG 125 or written permission of the department chairperson

An advanced writing course in which students continue to improve composition skills by interacting with both instructor and peers (including students from various curricula) to form a community of writers. Students are required to undertake sustained reading of books, periodicals and monographs in their fields and to complete research and other writing projects on topics related to their majors and fields of interest.

ENG 238

- **TECHNICAL WRITING**

Credits: 3 (3-0)

Prerequisite(s): ENG 122 or ENG 125 or written permission of the department chairperson

An advanced writing course designed especially for the students majoring in the various A.S. and A.A.S. curricula (with the exception of business majors). Enhances students' skills for technology communication projects with particular emphasis on informal and formal report writing. It emphasizes clarity, conciseness, objectivity and practicality of style.

ENG 239 GE HUM GE DIV

- **WOMEN IN LITERATURE**

Credits: 3 (3-0)

Prerequisite(s): ENG 122 or ENG 125 or written permission of the department chairperson

Writers who have shaped woman as a literary image and spoken with a woman's voice in novels, short stories and poems.

ENG 240

- **BUSINESS COMMUNICATION**

Credits: 3 (3-0)

Prerequisite(s): ENG 122 or ENG 125

The course focuses on oral and written communication theory and practice appropriate for a variety of business situations. Students generate and examine routine and special business correspondence, strategic electronic communication and informational and analytical business reports; conduct business research; refine team-oriented skills; and design/deliver oral presentations. The following concepts are emphasized: the nature of audience; business communication forms/formats; tone, style and diction; purpose; clarity and complexity; and other relevant rhetorical issues.

ENG 241

- **FEATURE WRITING**

Credits: 3 (3-0)

Prerequisite(s): ENG 122 or ENG 125 or written permission of the department chairperson

This course introduces the craft of rich, descriptive style writing for newspaper and magazine style publications. Students write movie reviews, restaurant reviews, columns, people or subject profiles and human-interest stories.

ENG 243 GE HUM

- **LITERATURE OF THE U.S.: BEGINNINGS TO 1880**

Credits: 3 (3-0)

Prerequisite(s): ENG 122 or ENG 125 or written permission of the department chairperson

A survey of works illustrating the literary experience in the United States from colonial times to 1880. Various cultural, intellectual, historical and literary perspectives are explored. Students complete reading, writing and research assignments to develop the skills of literary interpretation and analysis.

ENG 244 GE HUM

- **LITERATURE OF THE U.S.: 1880 TO 1945**

Credits: 3 (3-0)

Prerequisite(s): ENG 122 or ENG 125 or written permission of the department chairperson

A survey of works illustrating the literary experience in the United States from 1880 to 1945. Various cultural, intellectual, historical and literary perspectives are explored. Students complete reading, writing and research assignments to develop the skills of literary interpretation and analysis.

ENG 245 GE HUM

- **LITERATURE OF THE U.S.: WORLD WAR II TO PRESENT**

Credits: 3 (3-0)

Prerequisite(s): ENG 122 or ENG 125 or written permission of the department chairperson

A survey of works illustrating the literary experience in the United States from World War II to the present. Students complete reading, writing and research assignments about contemporary American authors such as Albee, Angelou, Baldwin, Brooks, Heller, Oates, O'Connor and Updike, whose works provide perspectives on the social, moral and political changes taking place in contemporary society.

ENG 247 GE HUM

- **PRINCIPLES LITERARY STUDY: INTRODUCTION TO POETRY**

Credits: 3 (3-0)

Prerequisite(s): ENG 122 or ENG 125 or written permission of the department chairperson

Introduces students to the principles of studying and analyzing different poetic forms. While reading, listening to, discussing and writing about various kinds of poems by such poets as Shakespeare, Milton, Keats, Frost, Plath and others, students learn to evaluate and appreciate poetry by understanding such concepts as figurative language, poetic speaker and situation, meter, sound, form and rhyme. Students are required to write a number of literary analyses.

ENG 248 GE HUM

- **INTRODUCTION TO SHORT FICTION**

Credits: 3 (3-0)

Prerequisite(s): ENG 122 or ENG 125 or written permission of the department chairperson

Students read short fiction by various authors of the 19th and 20th centuries and discover ways of talking and writing about it. Concepts such as point of view, character and plot are introduced. Students learn how to read with greater appreciation and skill and to see literature as a means to understand themselves and their world.

ENG 249

- **BIOGRAPHY AND AUTOBIOGRAPHY**

Credits: 3 (3-0)

Prerequisite(s): ENG 122 or ENG 125 or written permission of the department chairperson

An examination through letters, memoirs, journals, autobiography and biography of some of the seminal figures of our time. Through discussion and written response, the impact of cultural, ethnic, economic and political factors on the individual and the expression of such influences as they emerge in the writings are analyzed. The readings focus on individuals who represent the following: artists (art, dance, music, film), authors/playwrights/poets, scientists, politicians/statesmen, religious/philosophical figures.

ENG 250 GE DIV

- **GAY AND LESBIAN LITERATURE**

Credits: 3 (3-0)

Prerequisite(s): ENG 122 or ENG 125 or written permission of the department chairperson

Students read works which have either homosexuality as a prominent theme or prominent homosexual characters. Writers include, but are not limited to, Sappho, Catullus, Walt Whitman, Gertrude Stein, Virginia Woolf, Allen Ginsberg, Martin Duberman, Rita Mae Brown, Audre Lorde, Susan Sontag, Adrienne Rich, Minnie Bruce Pratt and Paul Monette. Old world and new world cultures, as well as a variety of genres, will be discussed in this course.

ENG 253 GE DIV

- **MYTHOLOGY IN LITERATURE**

Credits: 3 (3-0)

Prerequisite(s): ENG 122 or ENG 125 or written permission of the department chairperson

Myths of ancient cultures are read and discussed through some of their great epics, plays, poems and histories.

ENG 254 GE HUM

- **LITERATURE AND FILM**

Credits: 3 (3-0)

Prerequisite(s): ENG 122 or ENG 125 or written permission of the department chairperson

Works by writers such as Steinbeck, Bronte, Warren, Shakespeare and Dickens and their transfer to film by such directors as Ford, Wyler, Rossen, Olivier and Lean are studied. A study of the literary and cinematic approaches taken by each is included.

ENG 255 GE HUM

- **INTRODUCTION TO FILM**

Credits: 3 (3-0)

Prerequisite(s): ENG 122 or ENG 125 or written permission of the department chairperson

This course centers on the rudiments of film in order to understand the stylistic conventions, the business behind movie making and the ways movies reflect and change perceptions of language and life.

ENG 257

- **THE LITERATURE OF EVIL**

Credits: 3 (3-0)

Prerequisite(s): ENG 122 or ENG 125 or written permission of the department chairperson

Works by writers such as Euripides, Shakespeare, Machiavelli, Marlowe, Milton, Hawthorne, Poe, Shelley, Blatty, Tryon and O'Connor are studied. Students discuss various genres and types of evil characters as well as dominant motifs in the literature of evil.

ENG 258 GE HUM

- **MODERN DRAMATIC LITERATURE**

Credits: 3 (3-0)

Prerequisite(s): ENG 122 or ENG 125 or written permission of the department chairperson

An introductory study of modern dramatic literature, including plays by Ibsen, Shaw, Chekhov, Brecht, Beckett, Williams, Miller and O'Neill. Major works are analyzed for literary style, form and content; discussions touch on topics such as alienation, theatre of the absurd, existentialism in drama, tragicomedy, dramatic irony, and tragedy of the common man, and the playwright as social agitator.

ENG 260

- **SCRIPTWRITING**

Credits: 3 (3-0)

Prerequisite(s): ENG 122 or ENG 125 or written permission of the department chairperson

Scriptwriting is designed for the student who needs a course in generating story ideas, dialogue and presentational information for marketing, educational, industrial and/or entertainment arenas as well as for playwriting. During the course, students analyze the components of a script and review numerous published scripts with the intention of creating their own viable scripts. Also, students will write and work with dialogue, plot, scene development, storyboarding and distinctive script formats required for various media.

ENG 261

- **COPY EDITING**

Credits 3 (3-0)

Prerequisite(s): ENG 121

Corequisite(s): ENG 122 or ENG 125

The course stresses copy editing, proofreading, and desktop publishing skills and practices to be applied in the newspaper, magazine and publishing industries. Areas in copy editing and proofreading include clarity, conciseness, punctuation, grammar and syntax. Areas to be covered in desktop publishing include headline writing, caption writing and use of page design software. The course is recommended for persons employed in or seeking entry-level employment in copy editing or page design positions in newspapers, magazines, or publishing.

ENGLISH AS A SECOND LANGUAGE

ESL 060

- **LISTENING-INTENSIVE LEVEL I**

Credit equivalent(s): 3 (3-0)

Corequisite(s): ESL 061 and ESL 062

A beginning level listening course to help students comprehend basic interaction in a variety of contexts. Students acquire new vocabulary in addition to aural comprehension through classroom activities using tapes, workbook exercises, dictations and participation in group communication activities.

ESL 061

- **PHONOLOGY-INTENSIVE LEVEL I**

Credit equivalent(s): 3 (3-0)

Corequisite(s): ESL 060 and ESL 062

Pronunciation at the beginning level. Students learn the vowel and consonant sounds of English and the ability to produce them correctly. Students practice transferring this knowledge to dialogues and short conversations. Methods of self monitoring and correction are taught.

ESL 062

- **DISCUSSION-INTENSIVE LEVEL I**

Credit equivalent(s): 3 (3-0)

Corequisite(s): ESL 060 and ESL 061

Oral communication at the beginning level. Students participate in social conversations and acquire basic vocabulary in order to communicate better. Appropriate cultural behavior will be discussed in the context of social interaction.

ESL 063

- **STRUCTURE-INTENSIVE LEVEL I**

Credit equivalent(s): 4 (3-0)

Corequisite(s): ESL 064

A basic course in English structure in the context of listening, speaking, reading and writing. Approximately 1,000 vocabulary items are presented. Students are required to attend one hour of individualized work in the ESL Learning Center in addition to class hours.

ESL 064

- **WRITING INTENSIVE LEVEL I**

Credit equivalent(s): 4 (3-1)

Corequisite(s): ESL 063

A basic course in writing. Students learn to write grammatically correct simple sentences. More complex sentences will be practiced later and guided writing will be done based upon pictures, personal experience and other stimuli.

ESL 071

- **PHONOLOGY-INTENSIVE LEVEL II**

Credit equivalent(s): 3 (3-0)

Prerequisite(s): ESL 061 or written permission of the department chairperson

Corequisite(s): ESL 072

An intermediate course in pronunciation. Students review the vowel and consonant sounds and intensive practice done on contrasting the different vowel sounds. Accented and unaccented syllables are addressed and practice starts on intonation.

ESL 072

- **DISCUSSION/CULTURAL ORIENTATION-INTENSIVE LEVEL II**

Credit equivalent(s): 3 (3-0)

Prerequisite(s): ESL 062 or written permission of the department chairperson

Corequisite(s): ESL 071

A course in oral communication at the intermediate level. Attention paid to conversation techniques and strategies in different situations. Addresses the cultural conventions of communicating in American English.

ESL 073

- **STRUCTURE-INTENSIVE LEVEL II**

Credit equivalent(s): 4 (3-1)

Prerequisite(s): ESL 063 or written permission of the department chairperson

Corequisite(s): ESL 071, ESL 072, ESL 074 and ESL 075

A review of the basic structures in ESL 063 and an introduction to more advanced verb tenses and more complex and advanced structural items. Students required to attend a one hour of individualized work in the ESL Learning Center in addition to class hours.

ESL 074

- **WRITING-INTENSIVE LEVEL II**

Credit equivalent(s): 4 (3-1)

Prerequisite(s): ESL 064

Corequisite(s): ESL 071, ESL 072, ESL 073 and ESL 075

Develops skills in written structures at the intermediate level. Students review how to form a good sentence and then learn to combine these sentences to form a good paragraph. Students are required to attend one hour of individualized work in the ESL Learning Center in addition to class hours.

ESL 075

- **READING/VOCABULARY-INTENSIVE LEVEL II**

Credit equivalent(s): 3 (3-0)

Prerequisite(s): ESL 063

Corequisite(s): ESL 071, ESL 072, ESL 073 and ESL 074

Introduces students to reading. Vocabulary development is an integral part of this course. Emphasizes comprehension and vocabulary through context clues.

ESL 083

- **STRUCTURE-INTENSIVE LEVEL III**

Credit equivalent(s): 4 (3-1)

Prerequisite(s): ESL 073 or written permission of the department chairperson

Corequisite(s): ESL 084, ESL 085 and ESL 086

A continuation of ESL 073 introducing additional structural items. Students will review verb tenses and question forms, and learn advanced verb tenses and modal auxiliaries to have a good functional knowledge of American English grammar. Students will be required to attend a one hour individualized work session in the ESL Lab in addition to their class hours.

ESL 084

- **WRITING-INTENSIVE LEVEL III**

Credit equivalent(s): 4 (3-1)

Prerequisite(s): ESL 074 or written permission of the department chairperson

Corequisite(s): ESL 083, ESL 085 and ESL 086

A continuation of ESL 074. Emphasizes expanding paragraph development. Attention paid to more advanced, complex grammar in the context of writing. Students are required to attend one hour of individualized work in the ESL Learning Center in addition to class hours.

ESL 085

- **READING/VOCABULARY INTENSIVE III**

Credit equivalent(s): 3 (3-0)

Prerequisite(s): ESL 075 or written permission of the department chairperson

Corequisite(s): ESL 083, ESL 084 and ESL 086

Students practice reading longer passages than in previous courses. Emphasizes vocabulary development, comprehension, context clues and increased reading speed. Introduces specific reading attack skills for specific types of reading.

ESL 086

- **DISCUSSION/PHONOLOGY INTENSIVE LEVEL III**

Credit equivalent(s): 3 (3-0)

Prerequisite(s): ESL 071 and ESL 072 or written permission of the department chairperson

Corequisite(s): ESL 083, ESL 084 and ESL 085

Advanced review of all the sounds of English and work on syllables, stress and intonation. Addresses listening skills. Students have the opportunity to learn different conventions of communication through discussions. An oral presentation is required.

ESL 091

- **ADVANCED DISCUSSION AND PHONOLOGY LEVEL IV**

Credit equivalent(s): 3 (3-0)

Prerequisite(s): ESL 086 or written permission of the department chairperson

Corequisite(s): ESL 092, ESL 093, ESL 094 and ESL 099

Designed to facilitate the ESL student transition to subject matter classrooms and the workplace. The focus of the course is understanding and participating fully in the American college classroom and the workplace. Students will develop discussion skills required in the classroom and the workplace. The emphasis will be placed on aural comprehension and oral presentation. Advanced topics in American English phonology including contrastive intonation will be addressed.

ESL 092

- **ESL STRUCTURE IV**

Credit equivalent(s): 3 (3-0)

Prerequisite(s): ESL 083 or written permission of the department chairperson

Corequisite(s): ESL 086, ESL 091, ESL 093, ESL 094 and ESL 099

An advanced structure course that will review verb tenses included in ESL 083. Advanced structures such as gerunds, infinitives, participial phrases and various types of clauses will be introduced. Students will practice these structures in the context of writing.

ESL 093

- **ESL STRUCTURE/WRITING IV**

Credit equivalent(s): 4 (3-1)

Prerequisite(s): ESL 084 or written permission of the department chairperson

An advanced structure/writing course reviewing all of the structures covered in previous courses. Special attention made to the advanced structures necessary for good composition. Paragraph practice with an introduction to the various types of expository writing. Individualized work is required in the ESL Learning Center in addition to class hours. *Note: "C" is the minimum acceptable grade for movement from one remedial/ developmental level to another and for completion of remediation/developmental requirements to include all credit equivalent courses.*

ESL 094

- **ESL READING/VOCABULARY IV**

Credit equivalent(s): 4 (3-1)

Prerequisite(s): ESL 085 or written permission of the department chairperson

Review and utilize all of the skills developed in previous courses. Continued emphasis upon comprehension, advanced vocabulary development and increased reading speed. Students read and interpret advanced reading passages. Individualized work is required in the ESL Learning Center in addition to class hours. *Note: "C" is the minimum acceptable grade for movement from one remedial/developmental level to another and for completion of remediation/developmental requirements to include all credit equivalent courses.*

ESL 099

- **ESL READING/WRITING V**

Credit equivalent(s): 4 (3-1)

Prerequisite(s): ESL 093 or written permission of the department chairperson

Advanced course in reading/writing to improve composition skills through interpretation of reading passages. Students analyze readings and develop good expository essays in response to the readings. Individualized work is required in the ESL Learning Center in addition to class hours. *Note: "C" is the minimum acceptable grade for movement from one remedial/developmental level to another and for completion of remediation/ developmental requirements to include all credit equivalent courses.*

ENGLISH AS A SECOND LANGUAGE TRANSITION

EST 009

- **ENGLISH AS A SECOND LANGUAGE TRANSITION**

Credit equivalent(s): 4 (3-1)

For former ESL students whose test scores show they need intensive work to improve their writing abilities. Develops the ability to write in Standard American English. Provides instruction in sentence structure, punctuation and usage, taking into consideration the needs of second language learners; students regularly practice writing effective sentences, paragraphs and short essays. This course is in place of ENG 009 and students may have to enroll in ENG 010 after successfully completing EST 009. *Note: "C" is the minimum acceptable grade for movement from one remedial/developmental level to another for completion of remediation/ developmental requirements.*

ENVIRONMENTAL TECHNOLOGY

ENV 205

- **ATMOSPHERIC POLLUTION CONTROL**

Credits: 3 (3-0)

Prerequisite(s): BIO 118, CHM 118 and MAT 014 or equivalent

A survey of community air pollution stressing problems and the technology used for their detection and control. Students will learn about air monitoring equipment and air sampling procedures used in the field. Effects of air pollutants on the community will be considered on the basis of air quality standards. Techniques used to control air pollution emissions from both mobile and stationary sources will be discussed.

ENV 207 GE DIV

- **ENVIRONMENTAL ISSUES IN OUR DIVERSE SOCIETY**

Credits: 3 (2-2)

This course looks at the environmental issues that affect people living today. Students will learn about people from a variety of cultures and different geographical regions of the world, studying their histories, how they live, how technology affects them and how they manage their environmental issues. Each issue will be reviewed by studying its origin, the effect it has on today's society and its impact on the generations to come.

ENV 208

- **ENVIRONMENTAL HEALTH HAZARDS**

Credits: 3 (2-2)

A survey of current environmental health problems with emphasis on communicable diseases, waste disposal, water and air pollution control, food sanitation, pest control, hazardous waste disposal and other topics. Applicable federal and New Jersey regulations are studied.

ENV 211

- **CRITICAL ISSUES IN AIR AND WATER POLLUTION**

Credits: 4 (3-2)

Prerequisite(s): MAT 013 or appropriate score on the college placement test and one year of high school laboratory science

Basic topics include the values, attitudes and concepts necessary to understand and appreciate the interrelationships among people, their culture and their biophysical environment. Emphasis is on the air and water environment. Includes laboratory and field trips. ENV 211 and ENV 212 are not sequential and may be taken in either order.

ENV 212

- **GLOBAL ENVIRONMENTAL ISSUES**

Credits: 4 (3-2)

Prerequisite(s): MAT 013 or appropriate score on the college placement test and one year of high school laboratory science

Focuses on solid and hazardous wastes, toxicology, food, soils, energy and radiation. Includes laboratory and field trips. ENV 211 and ENV 212 are not sequential and may be taken in either order.

ENV 220

- **PRINCIPLES OF OCCUPATIONAL SAFETY AND HEALTH**

Credits: 3 (2-3)

Prerequisite(s): CHM 118 or equivalent

An introduction to industrial hygiene. This course examines the sampling and analytical techniques required to evaluate the safety and health hazards associated with the chemical, physical, biological and other stresses in the industrial environment. This course gives the student an understanding of the Fundamentals of Occupational Safety and Health and prepares the student for further training in Industrial Hygiene.

ENV 221

- **HAZARDOUS WASTE MANAGEMENT**

Credits: 3 (3-0)

Covers in detail the Resource and Recovery Act regulations as they pertain to the generation, transportation, storage and disposal of hazardous wastes.

ENV 222

- **WATER AND WASTEWATER ANALYSIS**

Credits: 3 (2-3)

Prerequisite(s): BIO 118, CHM 118 and MAT 013

A systematic study of laboratory procedures as applied to water and wastewater analysis. The course provides the student with an understanding of both the theory and the laboratory techniques required to perform all analyses needed to determine the sanitary characteristics of water. The student will also learn how to perform analytical tests to characterize wastewater.

ENV 223

- **ENVIRONMENTAL REGULATIONS**

Credits: 3 (3-0)

This course will provide students with an overview of environmental regulation affecting industry on a state and national level. Specific topics covered include: The Clean Air Act, The Clean Water Act, Resource Conservation and Recovery Act (RCRA), Occupational Safety and Health Act, Occupational Safety and Healthy Act (OSHA), Environmental Cleanup and Responsibility Act (ECRA) Topic Substance Control Act (TSCA), superfund, asbestos, indoor air quality and underground storage tanks.

ENV 226

- **ENVIRONMENTAL TECHNOLOGY COOPERATIVE EDUCATION**

Credits: 3 (1-12)

Prerequisite(s): ENV 201 or ENV 203 and written permission of the department chairperson and Counseling and Career Services Office

Corequisite(s): ENV 202 or ENV 204

A cooperative work experience program whereby the student is employed in a technical position in order to gain some of the practical experience necessary for success in environmental technology. Supervision of this approved position is provided by the College through on-the-job visits and individual progress review sessions. Students attend a bi-weekly two-hour seminar on campus and work a minimum of 180 hours per semester. *The student must be recommended by the faculty of the department in order to participate in this experience.*

FASHION MERCHANDISING

FMR 201

- **FASHION MERCHANDISE INFORMATION**

Credits: 4 (4-0)

Corequisite(s): BUS 101

The fashion and technical characteristics of various textiles and non-textiles and how students can use this information in developing a good sales presentation.

FMR 202

- **RETAIL BUYING AND MERCHANDISING**

Credits: 3 (3-0)

The latest techniques employed in the merchandising division of a store. The functions of the buyer and buyer's problems are analyzed and discussed. The analysis and determination of consumer demand, when and how much to buy, sources of supply, formulation and merchandise plans for profit and planning and control of stock.

FMR 204

- **RETAIL MANAGEMENT**

Credits: 3 (3-0)

Prerequisite(s): BUS 101, FMR 201, FMR 202, FMR 207, MKT 143 and MKT 201

Corequisite(s): FMR 206

The management principles and practices used in stores with emphasis on organization, operations and customer relations.

FMR 206

- **STORE FIELD EXPERIENCE**

Credits: 3 (1-12)

Prerequisite(s): The student must have completed half the courses in the Fashion Merchandising and Retail program. Management and written permission of the department chairperson and Counseling and Career Services Office.

A cooperative work experience program employing students in retail positions to gain practical work experience necessary for success in retailing. Supervision of this departmentally approved position is provided by the College through on-the-job visits and individual progress review sessions. Students are required to establish learning objectives related to their positions in order to effect the attainment of specific job competencies. Students attend a weekly, one-hour seminar on campus and work a minimum of 180 hours a semester. *Students must also register with the Counseling and Career Services Office.*

FMR 207

- **RETAIL ADVERTISING, SALES PROMOTION AND DISPLAY**

Credits: 3 (2-2)

Techniques of advertising, sales promotion and display to promote sales. Topics include: policies and procedures used in planning and preparing advertisements, evaluation and selection of media, planning and coordinating advertising, sales promotion and display.

FINANCE

FIN 113

- **PERSONAL FINANCIAL MANAGEMENT**

Credits: 3 (3-0)

Prerequisite(s): BUS 115

This is a practical course designed to prepare students to manage their present and future financial affairs. Topics to be covered include: goal setting, saving and using credit, budgeting, tax planning, housing (renting vs. buying), health, disability and life insurance, investment planning, as well as retirement planning, wills and estates.

FIRE SCIENCE TECHNOLOGY

FSC 103

- **INTRODUCTION TO FIRE PROTECTION**

Credits: 3 (3-0)

Introduces the history and philosophy of fire protection including a review of statistics of loss of life and property by fire; introduction to agencies involved in fire protection systems and extinguishing agents; firefighting strategy and tactics; fire department organization and equipment; legislative developments; and the discussion of current related problems and future needs related to fire protection, including the study of legal rights, duties, liability concerns and responsibilities of fire department organizations.

FSC 204

■ **BUILDING CONSTRUCTION**

Credits: 3 (3-0)

Prerequisite(s): FSC 103 or written permission of the department chairperson

Provides fire service personnel with an understanding of the basic principles of building construction and how design considerations and materials selection affect the life safety of both the building's occupants and firefighters. The five different types of construction will be covered in detail: wood frame, ordinary, non-combustible, mill and fire-resistive. Case studies of catastrophic fire losses will be examined from the building construction viewpoint and new construction materials and techniques will be explored.

FSC 206

■ **FIRE STRATEGY AND TACTICS**

Credits: 3 (3-0)

Prerequisite(s): FSC 103 or written permission of the department chairperson

Principles of fire control through preplanning and fire ground decision making: the size-up emphasizes life safety of occupants and fire fighting personnel as well as effective utilization of manpower, apparatus, and equipment for preservation of life and confinement of fire. Case studies of fire ground decisions are reviewed.

FSC 207

■ **HAZARDOUS MATERIALS**

Credits: 3 (3-0)

Prerequisite(s): CHM 107 and FSC 103 or written permission of the department chairperson

Chemical characteristics related to storage, transportation and handling of hazardous materials, i.e., flammables, combustibles, oxidizers, explosives, compressed gasses. Emphasizes emergency response, mitigation and fire suppression. Students will also receive certification in the awareness and operational levels of hazmat responder requirements as per OSHA 1910.120. Provides an introduction to the technician and incident commander levels of hazmat responder requirements.

FSC 209

■ **FIRE SUPPRESSION AND DETECTION SYSTEMS**

Credits: 3 (3-0)

Prerequisite(s): FSC 103 or written permission of the department chairperson

Fundamentals of design and installation of fixed fire protection systems. Selection and application of fire suppression and detection systems as well as engineering principles are covered. Systems studied will include, but are not limited to: sprinkler, standpipe, dry chemical, foam, halon, carbon dioxide, smoke/heat/fire detection, evacuation/public address and explosion. Case studies address issues related to systems selection, installation and maintenance.

FSC 210

■ **FIRE AND ARSON INVESTIGATION**

Credits: 3 (3-0)

Prerequisite(s): FSC 103 or written permission of the department chairperson

Fire causes, natural and accidental; fire and police investigation; orientation and introduction to arson and incendiarism; laws of arson; technical analysis of arson and fraud; collection and preservation of evidence; photography, diagrams and notes; interviewing and detention of witnesses; records, reports, briefs and court procedures; arson prevention; processing of criminal evidence and pertinent procedures required by statute.

FSC 212

■ **FIRE PREVENTION AND INSPECTION**

Credits: 3 (3-0)

Prerequisite(s): FSC 103 or written permission of the department chairperson

Basic principles of fire prevention and inspection, emphasizing recognition of fire hazards and the protection systems minimizing and/or coping with these hazards; includes methods of building inspection, enforcement of applicable laws, codes and ordinances and consideration of practical test facilities.

FSC 214

■ **RESCUE COMPANY OPERATIONS IN THE FIRE SERVICE**

Credits: 3 (3-0)

Prerequisite(s) FSC 103

A study of the many operations of today's heavy rescue companies. Emphasis will be placed on the fire disciplines of rescue, rope rescue, confined space, trench rescue, motor vehicle extraction, and building collapse and shoring. The duties and responsibilities of the rescue companies on the fire ground will also be examined. There will be hands-on training activities as well.

FRENCH

FRE 121 GE HUM

■ **ELEMENTARY FRENCH I**

Credits: 3 (3-0)

For students with no previous knowledge of French, or for those who have had less than two years of high school French. It includes systematic training in speaking, understanding, reading and writing simple French. Laboratory work is required.

FRE 122 GE HUM

■ **ELEMENTARY FRENCH II**

Credits: 3 (3-0)

Prerequisite(s): FRE 121

Continuation of FRE 121. For students with only the first semester (French 121) of Elementary French, or for students who have been placed through test results. This course continues the systematic training in speaking, understanding, reading and writing simple French. Laboratory work is required.

FRE 221 GE HUM

■ **INTERMEDIATE FRENCH I**

Credits: 3 (3-0)

Prerequisite(s): FRE 122 or two years of high school French

Continuation of principles established during the first year: review of grammar, reading and conversation. Emphasis on conversational activities and original compositions. Laboratory work is required.

FRE 222 GE HUM

■ **INTERMEDIATE FRENCH II**

Credits: 3 (3-0)

Prerequisite(s): FRE 221 or FRE 224 or FRE 228 or written permission of the department chairperson

Continuation of FRE 221. Intermediate French II is a continuation of principles established during the first semester of intermediate French. This fourth semester of French includes a review of grammar, reading, conversation and writing. During this semester special emphasis is placed on reading selected texts, conversations on reading and cultural materials. Importance is given to writing skills. A laboratory period is required.

FRE 224 GE HUM GE DIV

- **CONTEMPORARY FRENCH LITERATURE**

Credits: 3 (3-0)

Prerequisite(s): FRE 221 or FRE 222 or written permission of the department chairperson

Reading, analysis and discussion of works of representative Francophone writers from the late 19th and 20th centuries. Readings and discussions are primarily in French with a strong emphasis on the analysis of short stories, plays, poems, modern era and excerpts of novels.

FRE 228 GE HUM GE DIV

- **FRENCH CIVILIZATION AND CULTURE**

Credits: 3 (3-0)

Prerequisite(s): FRE 221

Reading, analysis and discussion of French civilization and culture of major periods from prehistoric times to the present. Readings and discussions primarily in French. Concurrent major developments in other cultures will be considered. This course may be taken in lieu of FRE 222 to complete the modern language requirement for the A.A.

FRE 231 GE HUM

- **FRENCH CONVERSATION AND COMPOSITION I**

Credits: 3 (3-0)

Prerequisite(s): FRE 222 or a minimum of three years of high school French

An advanced course providing intensive training in speaking and writing colloquial French. Includes oral and written reports and discussions based on the reading of modern French literature.

FRE 232 GE HUM

- **FRENCH CONVERSATION AND COMPOSITION II**

Credits: 3 (3-0)

Prerequisite(s): FRE 231

Continuation of FRE 231.

GERMAN

GER 121 GE HUM

- **ELEMENTARY GERMAN I**

Credits: 3 (3-0)

This course is for students beginning German or with less than two years of German in secondary school. Basic skills: listening, speaking, reading, writing. Supporting work is done in the language laboratory.

GER 122 GE HUM

- **ELEMENTARY GERMAN II**

Credits: 3 (3-0)

Prerequisite(s): GER 121

Continuation of GER 121.

GER 221 GE HUM

- **INTERMEDIATE GERMAN I**

Credits: 3 (3-0)

Prerequisite(s): GER 122 or two years of secondary school German

Review and continued study of grammatical structures. Practice in listening and reading skills; emphasis on speaking and writing based on modern German short stories and cultural topics. Supporting work in the language laboratory.

GER 222 GE HUM

- **INTERMEDIATE GERMAN II**

Credits: 3 (3-0)

Prerequisite(s): GER 221 or equivalent

Continuation of GER 221.

GER 224 GE HUM GE DIV

- **MODERN GERMAN LITERATURE**

Credits: 3 (3-0)

Prerequisite(s): GER 221 or equivalent

This course introduces students to important German writers of the modern era; the emphasis is on short stories and poems by authors from Austria, East Germany, Switzerland and West Germany.

GER 228 GE HUM GE DIV

- **GERMAN CULTURE AND CIVILIZATION**

Credits: 3 (3-0)

Prerequisite(s): GER 221 or equivalent

This survey course is a study of the historical, political, economic, social and cultural referents of German speaking countries from pre-historic times to the present. Video programs and slide-set modules serve to illustrate points of discussion. Readings and discussions will be frequently in German.

GER 231 GE HUM

- **GERMAN CONVERSATION AND COMPOSITION I**

Credits: 3 (3-0)

Prerequisite(s): GER 222 or placement test achievement

Emphasis on speaking and writing skills; vocabulary buildings in contemporary cultural, social and literary contexts; expanded study of syntax, semantics and style through example and expression.

GER 232 GE HUM

- **GERMAN CONVERSATION AND COMPOSITION II**

Credits: 3 (3-0)

Prerequisite(s): GER 231 or equivalent

Continuation of GER 231.

HEALTH

(For related courses, see Physical Education, Recreation and Dance)

HED 150 GE DIV

- **CONTEMPORARY HEALTH ISSUES**

Credits: 3 (3-0)

The course examines health as a variable entity having physiological, psychological, social and multicultural dimensions. The course explores the relationship between cultural and health behavior as a means of increasing cultural sensitivity. The course employs an individualized participatory approach that includes assessing one's own health status and behavior as well as exploring a personal decision making process. Topics include but are not limited to: establishing a basis for wellness, understanding sexuality, making responsible decisions about substance use and abuse, maintaining fitness and protecting one's self against disease and environmental risk factors.

HED 200 GE DIV

- **HUMAN SEXUALITY AND FAMILY LIFE**

Credits: 3 (3-0)

A survey course designed to enable students to understand the biological, physiological, psychological, social and cultural aspects of sexuality and human sexual behavior. An examination of multicultural influences is an integral part of the course. At the option of the professor, students are evaluated by quizzes, exams, a research paper and group work.

HED 205

- **NUTRITION FOR THE ACTIVE PERSON**

Credits: 3 (3-0)

All areas of nutrition, as it affects the active person. Emphasizes the essential dietary nutrients, the body's nutritional reaction to increased activity demands, meal planning, body weight and composition, and long- and short-term effects of nutrition. A research paper is required.

HED 209

- **CHILD HEALTH AND NUTRITION**

Credits: 3 (3-0)

Basic principles and research findings concerning health and nutrition of young children in group settings. Sensitivity to mental and physical health; planning nutrition programs and optimal physical care in child care centers.

HISTORY

(See also African-American Studies)

HIS 121 GE HIS

- **HISTORY OF WESTERN CIVILIZATION I**

Credits: 3 (3-0)

The historical development of Western civilization from ancient times to approximately 1715 A.D. Emphasis is on the social, economic, political and cultural forces that helped to shape the West, beginning with the early Mediterranean civilizations and following through to the subsequent rise of European civilization.

HIS 122 GE HIS

- **HISTORY OF WESTERN CIVILIZATION II**

Credits: 3 (3-0)

Europe and the world since 1715. Emphasis is on the emerging nation-state political system, the Industrial Revolution of the nineteenth century, and intellectual history of the nineteenth and twentieth centuries, the rise of totalitarianism in the twentieth century and the world balance of power since 1914.

HIS 123 GE HIS GE DIV

- **HISTORY OF CIVILIZATION IN EAST ASIA**

Credits: 3 (3-0)

This course is designed to trace the social, economic, political and cultural forces that shaped the cultures of the Far East from ancient times to the present. Emphasis is on the cultural similarities and differences between ways of life in India, China and Japan and the civilization of the West. (For a similar study of the Third World see HIS 124).

HIS 124 GE HIS GE DIV

- **HISTORY OF CIVILIZATION IN THE THIRD WORLD**

Credits: 3 (3-0)

This course is designed to trace the social, economic, political and cultural forces that shaped the cultures of the Third World from ancient times to the present. Emphasis is on the cultural similarities and differences between ways of life in Pre-Columbian (Maya, Aztec, Inca) America, the Middle East and Africa and the civilization of the West. (For a similar study of East Asia see HIS 123).

HIS 130

- **HEALTH CARE AND MEDICINE IN THE WESTERN WORLD**

Credits: 3 (3-0)

Examines the historical development of health and medical care in societies from the ancient Greek to the modern American. Emphasis on scientific and technological advancement, care of the ill, treatment of disease and training of health care practitioners. Discussion of the values of each historical period and the relationships between social values, ethics and prescribed health care.

HIS 202

- **ANCIENT EGYPT'S HISTORY: AN INTRODUCTION**

Credits: 3 (3-0)

Traces the genesis, rise and development of the high culture and dynastic civilization of pharaonic Egypt from the Predynastic Period through New Kingdom (approx. 3500 to 1000 B.C.) An interdisciplinary approach will be used that takes into account the effects that geography and topography had on Egypt's cultural development. Topics discussed will include language, religion, mummification, funerary architecture and art. Course will be illustrated with slides as well as with artifacts and artifact-facsimiles.

HIS 221 GE HIS

- **UNITED STATES HISTORY I**

Credits: 3 (3-0)

Historical importance of the Puritan heritage, the American Revolution, the Constitution, Jacksonian democracy, Manifest Destiny and the Civil War to understand pre-Civil War America.

HIS 222 GE HIS

- **UNITED STATES HISTORY II**

Credits: 3 (3-0)

Historical importance of Reconstruction, the rise of big business, the Progressive Movement, the World Wars, the New Deal and the Cold War. Understanding American institutions and values from the Civil War to the present.

HIS 240

- **TECHNOLOGY AND WESTERN CULTURE**

Credits: 3 (3-0)

An introduction to the historical significance of technological development on the structure of modern society. The development, usage and impact of selected technologies as they relate to the historical development of Western civilization.

HIS 245 GE DIV

- **HISTORY OF MAJOR WORLD RELIGIONS**

Credits: 3 (3-0)

This course is designed to explore the historical origins and evolution of the beliefs and contemporary practices of Judaism, Christianity, Islam, Hinduism, Buddhism, Taoism, Confucianism and Shintoism. Attention is given to the interaction of the specific religions and the cultures in which they are practiced.

HIS 256 GE HIS

- **HISTORY OF TWENTIETH CENTURY**

Credits: 3 (3-0)

Cultural and intellectual history, assessing the effect of historical events on the lives of individuals, as well as societies. Focus on increased government influence over the lives of its citizens, especially in the area of politics and economics.

HIS 258 GE HIS GE DIV

- **HISTORY OF WOMEN**

Credits: 3 (3-0)

This course is designed to enable both women and men to understand the background of women in the Western World. Emphasis is placed upon the roles of women in various societies and upon the contributions made by women. Several women's movements will be studied in detail.

HIS 260 GE DIV

- **DIMENSIONS OF PREJUDICE, GENOCIDE AND THE HOLOCAUST**

Credits: 3 (3-0)

Enhances students' understanding of global genocide and the Holocaust of World War II. A variety of studies will permit students to gain a broader understanding of prejudice and racism, as well as to develop their insight and knowledge of human inhumanity. Comparisons of worldwide genocides will be traced throughout the 20th century, with special focus on the Nazi Holocaust. Attention will be given to major issues pertaining to conscience and moral responsibility regarding prejudice, genocide and the Holocaust.

HOTEL, RESTAURANT AND INSTITUTION MANAGEMENT

HRI 101

- **INTRODUCTION TO HOTEL, RESTAURANT AND INSTITUTION MANAGEMENT**

Credits: 3 (3-0)

An introduction to the lodging and feeding industry: its history and development, current trends, its organization, its challenges and opportunities for service.

HRI 103

- **PRINCIPLES OF FOOD SELECTION AND PREPARATION**

Credits: 3 (1-4)

A study of the classification, selection and preparation of foods. Emphasis on working techniques and the development of professional skills.

HRI 105

- **BASIC NUTRITION**

Credits: 3 (3-0)

Corequisite(s): BIO 108

Principles of nutrition including the various essential nutrients in foods and their functions in the human body.

HRI 107

- **BAKING FUNDAMENTALS**

Credits: 3 (1-4)

Practical baking fundamentals for quality and quantity production of sweet dough, breads, pies, cakes, pastries and specialty bakery and dessert products, including cake decorating.

HRI 108

- **QUANTITY FOOD PRODUCTION**

Credits: 3 (1-4)

Prerequisite(s): HRI 103

The study and application of techniques, standards and principles of quantity cookery. Emphasis is on the flow of food production through the kitchen of foodservice operations and the development of skills in culinary arts.

HRI 109

- **PROFESSIONAL CULINARY TECHNIQUES**

Credits: 3 (1-4)

Prerequisite(s): HRI 103

The study of professional cooking based on a knowledge of ingredients and procedures with an emphasis on classical culinary methods, menu planning and influences on modern American cuisine.

HRI 110

- **SUPERVISORY DEVELOPMENT IN THE LODGING AND FOODSERVICE INDUSTRY**

Credits: 3 (3-0)

An introduction to the principles of effective supervision by today's hospitality managers. Supervisory skills that impact the working relationships between supervisors and employees. Industry certification.

HRI 111

- **CULINARY ARTS EXTERNSHIP**

Credits: 3 (1-13)

Prerequisite(s): HRI 103 and admission to the Culinary Arts Program

A practicum designed to develop and refine professional food preparation and production skills through an approved on-site industry experience. Learning activities are planned, supervised and evaluated by qualified chefs and/or food production managers in coordination with the program coordinator.

HRI 114

- **GARDE MANGER**

Credits: 3 (1-4)

Prerequisite(s): HRI 103

Decorating foods and platters for a la carte and buffet production. Food specialties such as sculptures, aspics, pates, chaudfroids, terrines, galantines and sauces are prepared.

HRI 115

- **FOODSERVICE OPERATIONS**

Credits: 3 (3-0)

Introduction to the restaurant and catering business including terminology, principles of foodservice management and elements of dining room service.

HRI 116

- **PROFESSIONAL PASTRY TECHNIQUES**

Credits: 3 (1-4)

Prerequisite(s): HRI 107

Building on skills developed in HRI 107: Baking Fundamentals, this course will provide students with a thorough understanding of advanced pastry techniques. The preparation of various doughs, custards, foams and frozen desserts will be taught with an emphasis on sauces, garnishes and restaurant plating techniques.

HRI 118

- **CAKES, DECORATING AND SPECIALTY TECHNIQUES**

Credits: 3 (1-4)

Prerequisite(s): HRI 107

The course presents the art and science of quality cake preparations to include sponges, icings, meringues and mousse. The course will also cover assembly and decoration of both classic and modern cakes, including wedding cakes. An introduction to tempered chocolate and basic candies is provided.

HRI 120

- **BAKING AND PASTRY ARTS EXTERNSHIP**

Credits: 3 (1-0-12)

Prerequisite(s): HRI 116, HRI 118

Students practice acquired skills in baking and pastry arts in approved externship sites under the supervision of professional bakers and pastry chefs. *Note: Baking & Pastry Arts Certificate students only.*

HRI 201

■ **HOTEL-MOTEL FRONT OFFICE OPERATIONS**

Credits: 3 (2-2)

Prerequisite(s): BUS 107

Theory and practice in front office management for small and large properties. Function and operation of systems and equipment used in the front office through the complete guest cycle. Practical applications of management concepts through lab exercises and computer simulation.

HRI 202

■ **FACILITIES LAYOUT AND DESIGN**

Credits: 3 (2-2)

Study of physical property, selection, design, operation and maintenance of equipment essential for hotel, restaurant and institution operations.

HRI 203

■ **BANQUET AND DINING ROOM MANAGEMENT**

Credits: 4 (2-4)

Prerequisite(s): HRI 108

The application of management techniques through the experience of planning and managing luncheons catered by students in the curriculum. The course provides opportunities to apply principles of menu planning, food cost control, sanitation, food production, employee supervision, marketing and guest service.

HRI 204

■ **SEMINAR AND COOPERATIVE WORK EXPERIENCE**

Credits: 3 (2-2)

Prerequisite(s): HRI 101, HRI 103 and HRI 208 or written permission of the department chairperson and Counseling and Career Services Office

A critical review and analysis of operations, materials and equipment based on current reports in trade journals and periodicals. Discussion of employment experiences in industry. The influence of menu and clientele on preparation and functions of management in the food and lodging industry. One lecture hour a week on campus and minimum of 180 hours a semester on related work experience.

HRI 205

■ **FOOD AND BEVERAGE CONTROLS AND PURCHASING**

Credits: 3 (2-2)

Prerequisite(s): HRI 103

Principles and management of cost control systems for planning, controlling and analyzing costs related to food, labor and other expenses in food service operations. Principles and theories of food procurement, including management, safety and ethical considerations in the procurement process. Industry certification.

HRI 206

■ **MERCHANDISING FOR THE HOSPITALITY INDUSTRY**

Credits: 3 (2-2)

Principles and practices of public hospitality merchandising. Use of advertising and promotional media as related to internal and external sales. Laboratory practice in creating promotional materials.

HRI 208

■ **FOODSERVICE SANITATION**

Credits: 3 (3-0)

Techniques and procedures for employing safe practice in foodservice including food sanitation and microbiology, food spoilage and food-borne illnesses and education and training in sanitation of foodservice personnel. Industry certification.

HRI 210

■ **INTRODUCTION TO MEDICAL NUTRITION THERAPY**

Credits: 3 (3-0)

Prerequisite(s): HRI 105 with a grade of "C" or better

Explores the nutritional management of disease. Application of nutrition principles to the nutritional care of patients/clients as a result of disease development.

HRI 213

■ **FOOD SERVICE SYSTEMS MANAGEMENT IN DIETETICS**

Credits: 3 (3-0)

The study and application of concepts and theories in foodservice systems management including: human resources, labor laws, materials management, information technology, physical resources, financial management, quality improvement techniques and theories, marketing and menu planning.

HRI 214

■ **NUTRITION FUNDAMENTALS FOR NURSING**

Credits: 3 (3-0)

Prerequisite(s): NRB 122, BIO 112

The scientific study of nutrients including proteins, lipids, carbohydrates, vitamins and minerals as it relates to digestion, absorption and metabolism will be explored. An introduction to the nutrition care process, the assessment of nutrition status, interactions between drugs and nutrients, the relationship of disease to nutrition status and the principles of nutrition management of various diseases will be emphasized. *Nursing students only.*

HRI 215

■ **BEVERAGE MANAGEMENT**

Credits: 3 (2-2)

An introduction to planning, equipping, staffing, operating, marketing, regulations and terms of the trade as they relate to purchasing, control, merchandising and bar management. The identification, use and service of wines and other alcoholic beverages.

HRI 216

■ **HOSPITALITY PROPERTY MANAGEMENT**

Credits: 3 (3-0)

Property management including the care of guest rooms and public space, security, parking, laundry, recreation rooms and pools and other outdoor recreation facilities with emphasis on staffing, equipment, capital investment, rentals and renovations.

HRI 217

■ **SUPERVISORY HOUSEKEEPING**

Credits: 3 (3-0)

The fundamentals of housekeeping management. Management functions, tools and practices required in lodging and institutional housekeeping departments. Industry certification.

HRI 218

■ **NUTRITION THROUGHOUT THE LIFE SPAN**

Credits: 3 (3-0)

Prerequisite(s): HRI 105 with a grade of "C" or better

Explores the principles and impact of nutrition on preconception, pregnancy, lactation, infancy, childhood, adolescence, adulthood and aging. For every phase of life, investigates characteristics of normal growth and development, nutrition assessment, the most common nutritional deficiencies seen, nutrient needs and practical means of delivering nutrition. Practice in planning meals appropriate for each stage of life is included.

HRI 220
- **TRAINING DEVELOPMENT OF HOSPITALITY MANAGEMENT**

Credits: 3 (3-0)

Training needs in the hospitality industry. The systematic design of instruction, the evaluation of training programs and management of the training function. Industry certification.

HRI 240
- **FOOD SCIENCE AND TECHNOLOGY**

Credits: 3 (2-3)

Prerequisite(s): HRI 103, CHM 120 or CHM 201

A study of scientific and sensory principles of food evaluation as it relates to food science, quality assurance and experimentation and application in food preparation. Emphasis is on the integration of theory and research studies combined with laboratory work.

HRI 250
- **LAW FOR HOSPITALITY OPERATIONS**

Credits: 3 (3-0)

A basic course in hotel, motel and restaurant law. Introduces fundamental laws, rules and regulations applicable to the hospitality industry.

ITALIAN

ITA 121 GE HUM
- **ELEMENTARY ITALIAN I**

Credits: 3 (3-0)

For students with no previous knowledge of Italian, or for those who have had less than two years of high school Italian. It includes systematic training in speaking, understanding, reading and writing simple French. Laboratory work is required.

ITA 122 GE HUM
- **ELEMENTARY ITALIAN II**

Credits: 3 (3-0)

Prerequisite(s): ITA 121

For students with no previous knowledge of Italian, or for those who have had less than two years of high school Italian. It includes systematic training in speaking, understanding, reading and writing simple French. Laboratory work is required.

ITA 221 GE HUM
- **INTERMEDIATE ITALIAN I**

Credits: 3 (3-0)

Prerequisite(s): ITA 121 - ITA 122 or its equivalency

For students who have successfully completed Italian 121-122 or its equivalency. General review of materials previously covered. Continuation and completion of presentation of basic grammar. Development of all forms of language communication.

ITA 222 GE HUM
- **INTERMEDIATE ITALIAN II**

Credits: 3 (3-0)

Prerequisite(s): ITA 221

For students who have successfully completed Italian 121-122 or its equivalency. General review of materials previously covered. Continuation and completion of presentation of basic grammar. Development of all forms of language communication.

LANGUAGES AND CULTURES

LNC 123 GE DIV
- **INTRODUCTION TO THE STUDY OF HUMAN LANGUAGE**

Credits: 3 (3-0)

The course introduces and explores the areas of language acquisition, dialects, social variations of language, language and ethnicity, language and gender and cross-cultural and multi-cultural perspectives of language. The student will get a broad understanding of phonology, morphology, syntax, semantics and pragmatics in the context of English and its history.

MANAGEMENT

MGT 200
- **PRINCIPLES OF SUPERVISION**

Credits: 3 (3-0)

Supervisory practices and principles with maximum opportunities for practical involvement in applying theory to real-life situations. Emphasizes first and middle-level supervisory positions. Stresses the aspects of job leadership and effective human relations. Includes procedures for dealing with interpersonal relationships among and between employees and management, quality circles, quality of work life, conflict management, cost-benefit analysis, organization development, time management and stress management. Recommended for persons employed in or seeking entry-level employment in supervisory positions in business, industry or public service.

MGT 205
- **PRINCIPLES OF LABOR RELATIONS**

Credits: 3 (3-0)

Prerequisite(s): BUS 101 or MGT 220

A survey course that evaluates union growth and structure. A study of the nature of the labor market, collective bargaining, labor legislation, wages, employment and productivity. An analysis of policies and techniques of employers, wage earners and government in trying to find solutions to the labor problems in American society.

MGT 208
- **MANAGEMENT FIELD EXPERIENCE**

Credits: 3 (1-12)

Prerequisite(s): MGT 210 and written permission of the department chairperson and Counseling and Career Services Office

A cooperative work experience program employing students in a management position in order to gain some practical experience necessary for success in management. Supervision of this departmentally approved position is provided by the College through on-the-job visits and individual progress review sessions. Students are required to describe their objectives and attain specific job skills. Students attend a bi-weekly two-hour seminar on campus and work a minimum of 180 hours a semester. *Individuals must be recommended by the faculty of the department and register with the Counseling and Career Services Office.*

MGT 210
- **CONCEPTS OF BUSINESS MANAGEMENT**

Credits: 3 (3-0)

Prerequisite(s): BUS 101

Theories, techniques and insights from the behavioral sciences of the major areas of management including planning, organizing, directing, controlling and administration. Concepts relating to all levels of management are studied.

MGT 214

- **OPERATIONS MANAGEMENT**

Credits: 3 (3-0)

Prerequisite(s): MGT 210

The development of an awareness of the tools a user/manager utilizes in the design modification and implementation of a manual or automated system. Students select a particular technique, apply it to a system and develop cost justification for implementation of the technique. A combination of lecture and workshop oriented sessions are used in developing the various management techniques. The various tools and management techniques for evaluating the operations functions of a business are examined.

MGT 216

- **SEMINAR IN MANAGEMENT EXPERIENCES**

Credits: 3 (3-0)

Prerequisite(s): ACC 102, ECO 202, ENG 122, MGT 205, MGT 210 and MGT 220

Corequisite(s): MGT 214

An interdisciplinary course which integrates and synthesizes concepts and information from preceding management courses. Emphasis is on establishing an environment to employ previously learned material, with the opportunity to practice decision-making and control techniques based on this material. Case studies are employed and supplemented with simulation techniques. Emphasis is given to subordinate-supervisor interaction, with students participating individually and in teams.

MGT 220

- **HUMAN RESOURCES MANAGEMENT**

Credits: 3 (3-0)

An analysis of the principles of organization for effective human resources management. Selection of personnel, delegation of responsibilities, the psychology of motivating and directing people, dealing with unions and other organized groups and training and maintaining morale.

MARKETING

MKT 143

- **SALESMANSHIP**

Credits: 3 (3-0)

The fundamentals of selling with particular stress on preparation, approach, demonstration, overcoming objections and closing sales. Developed through discussions and participation in sales situations.

MKT 201

- **MARKETING I**

Credits: 3 (3-0)

Prerequisite(s): BUS 101

An overview of the field of marketing and the marketing concept. Students develop an understanding of the growing importance of the consumer, differences between industrial and consumer marketing, the impact of government and environment on marketing and the basic marketing functions of product planning, marketing channels, physical distribution, promotion, pricing and marketing research.

MKT 202

- **MARKETING II**

Credits: 3 (3-0)

Prerequisite(s): MKT 201

An advanced and interdisciplinary analysis of marketing planning, using the concept of strategic management, through the case history approach.

MKT 203

- **PRINCIPLES OF ADVERTISING**

Credits: 3 (3-0)

Prerequisite(s): BUS 101

The principles of advertising and the role of advertising in the field of business. The course traces advertising through its various steps from the initial need to its implementation in the marketplace.

MKT 206

- **MARKETING MANAGEMENT SEMINAR**

Credits: 3 (3-0)

Prerequisite(s) MKT 202

Corequisite(s): ACC 102, BUS 201, ECO 201, ENG 122 and MKT 203

Students integrate their knowledge of the major areas of marketing and management and test their theoretical concepts through marketing planning projects. Students' analyses of the class projects are directed at the managerial level.

MKT 209

- **MARKETING FIELD EXPERIENCE**

Credits: 3 (1-12)

Prerequisite(s): MKT 201

A cooperative work experience program employing students in a marketing position in order to gain practical experience necessary for success in marketing. Supervision of this departmentally approved position is provided by the College through on-the-job visits and individual progress review sessions. Students are required to describe their objectives and attain specific job skills. Students attend a bi-weekly, two-hour seminar on campus and work a minimum of 180 hours a semester. MKT 209 Marketing Field Experience is offered as an alternative to BUS 202. *Students must register with the Counseling and Career Services Office.*

MATHEMATICS

MAT 009

- **BASIC MATHEMATICS ALTERNATIVE**

Credit equivalent(s): 1 (1-0)

Prerequisite(s): written permission of the department chairperson

This course focuses on computational skills and problem solving. The topics covered are addition, subtraction, multiplication and division of whole numbers, fractions and decimals; ratio and proportion; percentage; measurement, areas and perimeters of common geometric figures, and basic descriptive statistics. *Note: A minimum grade of "C" is required for movement from one remedial course to another and for completion of the remedial requirements to qualify for credit courses.*

MAT 010

- **BASIC MATHEMATICS**

Credit equivalent(s): 3 (3-0)

Focuses on computational skills and problem solving. Topics include addition, subtraction, multiplication and division of whole numbers, fractions and decimals, ratio and proportion, percent, measurement, areas and perimeters of geometric figures, Pythagorean Theorem, operations with integers, and basic descriptive statistics. Applications are included as well. *Note: A minimum grade of "C" is required for movement from one remedial course to another and for completion of the remedial requirements to qualify for credit courses.*

MAT 010A

- **BASIC MATHEMATICS (PART A)**

Credit equivalent(s): 3 (3-0)

The first half of a two-semester course which focuses on computational skills and problem solving. Topics include addition, subtraction, multiplication and division of whole numbers, fractions and decimals. Applications are included as well. Students who successfully complete this course must pass MAT 010B in order to fulfill the MAT 010 requirement. *Note: A "C" is the minimum acceptable grade for completion of the remedial/development level or movement to MAT 010B.*

MAT 010B

- **BASIC MATHEMATICS (PART B)**

Credit equivalent(s): 3 (3-0)

Prerequisite(s): MAT 010A

The second half of a two-semester course which focuses on computational skills and problem solving. Topics include ratio and proportion, percent, measurement, areas and perimeters of geometric figures, Pythagorean Theorem, operations with integers, and basic descriptive statistics. Applications are included as well. Students who successfully complete MAT 010A and MAT 010B will have fulfilled the MAT 010 requirement. *Note: A minimum grade of "C" is required for movement from one remedial course to another and for completion of the remedial requirements to qualify for credit courses.*

MAT 013

- **ALGEBRA I**

Credit equivalent(s): 4 (4-0)

Prerequisite(s): MAT 010 or passing score on the college placement test

Covers topics in elementary algebra: integral and irrational numbers, techniques of graphing and solving linear equations, polynomials and their operations, special products and factoring, radical expressions and equations, quadratic equations and methods of solutions. Applications of linear and quadratic equations are included as well. *Note: A minimum grade of "C" is required for movement from one remedial course to another and for completion of the remedial requirements to qualify for credit courses.*

MAT 013A

- **ALGEBRA I (PART A)**

Credit equivalent(s): 4 (4-0)

Prerequisite(s): MAT 010 or passing score on the college placement test

The first half of a two-semester course in elementary algebra designed to introduce and develop elementary algebra concepts. Topics include: Properties of real numbers, operations on real numbers, simplifying and evaluating algebraic expressions, solving linear equations, solving literal equations, verbal problems and an introduction to polynomials. Students must complete this course and MAT 013B to fulfill the MAT 013 requirement. *Note: A "C" is the minimum acceptable grade for completion of the remedial/development level or movement to MAT 013B.*

MAT 013B

- **ALGEBRA I (PART B)**

Credit equivalent(s): 4 (4-0)

Prerequisite(s): MAT 013A or written permission of the department chairperson

The second half of a two-semester course in elementary algebra designed to introduce and develop elementary algebraic concepts. Topics include: techniques of graphing, solving linear equations and linear systems, polynomials and their operations, special products and factoring, rational expressions and equations, an introduction to radical expressions, and solving quadratic equations by factoring. *Note: A minimum grade of "C" is required for movement from one remedial course to another and for completion of the remedial requirements to qualify for credit courses.*

MAT 014

- **ALGEBRA II**

Credit equivalent(s): 4 (4-0)

Prerequisite(s): MAT 013, equivalent, or passing score on the college placement test

Topics include: a review of elementary algebra, the coordinate plane and functions, linear equations and inequalities, properties of lines, systems of linear equations, polynomials, rational expressions and quadratic equations. The use of a graphing calculator is essential. TI83/84 graphing calculator is required. *Note: A minimum grade of "C" is required for movement from one remedial course to another and for completion of the remedial requirements to qualify for credit courses.*

MAT 014A

- **ALGEBRA II (PART A)**

Credit equivalent(s): 4 (4-0)

Prerequisite(s): Grade of "C" or better in MAT 013, MAT 013B, or appropriate score on the college placement test

The first half of a two-semester course in intermediate algebra designed to polish skills developed in Algebra I and elevate them to a higher level of mathematical sophistication through the use of lecture, group work and the calculator. Topics include: A review of elementary algebra, the coordinate plane and graphs of functions, functional notation, linear equations and inequalities, properties of lines, systems of linear equations and polynomials. TI83/84 graphing calculator is required. Students must complete this course and Mat 014B to fulfill the MAT 014 requirement. *Note: A "C" is the minimum acceptable grade for completion of the remedial/development level or movement to MAT 014B.*

MAT 014B

- **ALGEBRA II (PART B)**

Credit equivalent(s): 4 (4-0)

Prerequisite(s): Grade of "C" or better in MAT 014A

The second half of a two-semester course in intermediate algebra designed to polish skills developed in Algebra I and elevate them to a higher level of mathematical sophistication through the use of lecture, group work and the calculator. Topics include: quadratic equations, rational exponents, radical expressions, rational equations and complex fractions. TI83/84 graphing calculator is required. *Note: A minimum grade of "C" is required for movement from one remedial course to another and for completion of the remedial requirements to qualify for credit courses.*

MAT 020

- **GEOMETRY**

Credit equivalent(s): 4 (4-0)

Prerequisite(s): MAT 013 or equivalent

A traditional high school geometry course for students who have successfully completed one year of high school algebra or equivalent. Includes an understanding of Euclidean geometry with topics such as basic proofs, congruent triangles, parallel and perpendicular lines, lines and planes in space, polygons, circles and the Pythagorean Theorem. Optional topics include logic and construction. *Note: A minimum grade of "C" is required for movement from one remedial course to another and for completion of the remedial requirements to qualify for credit courses.*

MAT 080

- **ALGEBRA I ALTERNATIVE**

Credit equivalent(s): 1 (1-0)

Prerequisite(s): MAT 010 or equivalent and passing score on the college placement test

An intensive course in algebra covering integral, rational and irrational numbers, techniques of graphing and solving linear equations, polynomials and their operations, special products and factoring, rational expressions and equations, and solving quadratic equations by factoring. *Note: A minimum grade of "C" is required for movement from one remedial course to another and for completion of the remedial requirements to qualify for credit courses.*

MAT 090

- **ALGEBRA II REVIEW**

Credit equivalent(s): 1 (1-0)

Prerequisite(s): Grade of "C" or better in MAT 013, or passing score on the college placement test

This is an intensive review course in Intermediate Algebra (Algebra II). Topics include: a review of elementary algebra, the coordinate plane and functions, linear equations and inequalities, properties of lines, systems of linear equation, polynomials, rational expressions and quadratic equations. TI83/84 graphing calculator is required.

MAT 101 GE MST

- **FRESHMAN MATHEMATICS I**

Credits: 3 (3-0)

Prerequisite(s): Passing score on the college placement test, two years of high school mathematics or MAT 013 or written permission of the department chairperson

The first half of a two-semester course designed primarily for liberal arts students and others planning a year's study of college level mathematics. Topics surveyed include inductive reasoning, problem solving, concepts of sets, Venn diagrams and applications, geometry, consumer mathematics, simple and compound interest, installment buying and mortgages.

MAT 102 GE MST

- **FRESHMAN MATHEMATICS II**

Credits: 3 (3-0)

Prerequisite(s): MAT 101

A continuation of MAT 101. The second half of a two-semester course designed primarily for liberal arts students and others planning a year's study of college level mathematics. Topics surveyed include probability, odds and expected value, statistics, graph theory and voting.

MAT 104

- **MATHEMATICS IN THE ELEMENTARY SCHOOL**

Credits: 3 (3-0)

Prerequisite(s): Passing score on the college placement test or successful completion of MAT 013

An introduction to basic mathematics for paraprofessionals. Includes the teaching of arithmetic operations in those number systems appropriate for the elementary school, problem-solving techniques for the development of mathematical concepts and the use of instructional aids.

MAT 107 GE MST

- **MATHEMATICS I**

Credits: 3 (3-0)

Prerequisite(s): Passing score on the college placement test, MAT 013, or written permission of the department chairperson

Basic mathematics with an emphasis on the technical, manipulative skills that are required in a technological society. Emphasis is on understanding concepts in each of the many application-oriented problems. Stresses the importance of precision, accuracy and the clear presentation of results. Topics include arithmetic operations, measurement, rounding, conversions, fractions, decimals, percents, ratio, proportion, scientific notation, use of calculators, metric system, solving linear equations and systems of equations, and graphing linear equations. The first semester of a two-semester course. TI83/84 graphing calculator required.

MAT 108 GE MST

- **MATHEMATICS II**

Credits: 3 (3-0)

Prerequisite(s): MAT 107

A continuation of MAT 107. This course stresses technical mathematical skills and applications. Topics include solving right triangles, logarithmic and exponential functions and radicals. Also includes the statistics topics of frequency distribution, presentation of statistical data (graphs, charts and tables), measures of central tendency and dispersion, the Normal distribution and introduction to probability theory.

MAT 109 GE MST

- **COLLEGE ALGEBRA AND TRIGONOMETRY I**

Credits: 3 (3-0)

Prerequisite(s): Passing score on the college placement test, MAT 014, at least two years of high school algebra, satisfactory score on placement examination, or written permission of the department chairperson

Prepares students for calculus. Its purpose is to make students aware of the concepts and skills needed in a technological society. Some essential topics are linear, quadratic, and trigonometric function, vectors, solutions of triangles and use of the calculator. Additional topics include use of determinants and technical applications.

MAT 110 GE MST

- **COLLEGE ALGEBRA AND TRIGONOMETRY II**

Credits: 2 (2-0)

Prerequisite(s): MAT 109 or equivalent

A continuation of MAT 109. Essential topics are quadratic, trigonometric, exponential and logarithmic functions and their graphs and use of the calculator. Additional topics include complex numbers, statistics and graphing.

MAT 112 GE MST

- **UNIFIED CALCULUS I**

Credits: 3 (3-0)

Prerequisite(s): MAT 110 or equivalent

An introduction to calculus with topics from analytic geometry, with a special emphasis on technical applications. Essential topics include equations of lines and circles, development of the derivative of polynomial and transcendental functions, derivative applications such as curve sketching, maxima-minima problems, related rates, development of the integrals of polynomials and integral applications such as area under curves. Additional topics are applications such as volumes, centroids, moments of inertia and inverse trigonometric functions.

MAT 116

- **COLLEGE ALGEBRA**

Credits: 3 (3-0)

Prerequisite(s): MAT 014, MAT 014A/MAT 014B, or equivalent

This course is designed to prepare students for general education science and mathematics electives. Topics include concepts of algebra, algebraic functions and graphs, exponential and logarithmic functions and graphs, inequalities and systems of equations. Applications are emphasized.

MAT 123 GE MST

- **STATISTICS I**

Credits: 3 (3-0)

Prerequisite(s): MAT 014, MAT 014A/MAT 014B, or appropriate score on the college placement test

Familiarizes students with mathematical models that occur in more advanced courses and in the areas of business, science and the social sciences using exploratory data analysis and statistical methods. Topics include linear regression, probability and probability distribution, confidence intervals, and an introduction to hypothesis testing.

MAT 124 GE MST

- **STATISTICS II**

Credits: 3 (3-0)

Prerequisite(s): MAT 123

Continues the study of hypothesis testing, including one and two sample testing, chi-square analysis, analysis of variance, non-parametric statistics and regression and curve fitting. Familiarizes the students with models and methods used in data analysis with a focus on databases and computer systems to aid in analysis. Students will plan an experiment and make inferences about a population based upon sample data collected.

MAT 125 GE MST

- **MATH FOR DECISION SCIENCES I**

Credits: 3 (3-0)

Prerequisite(s): Passing score on the College Placement test, MAT 014, at least two years of high school algebra, satisfactory score on placement examination, or written permission of the department chairperson

Introduces students to methods of mathematical thinking, to prepare them for more advanced courses and to introduce them to mathematical concepts that occur in programming and algorithm development. Topics introduced in the first semester are logic, truth tables, number systems, linear equations, systems of equations, matrix operations, mathematics of finance, exponentials, logarithms, relations and functions. Topics stress discrete mathematics. This is the first semester of a two- semester sequence designed for students in computer science.

MAT 126 GE MST

- **MATH FOR DECISION SCIENCES II**

Credits: 3 (3-0)

Prerequisite(s) MAT 125

A continuation of MAT 125. Familiarizes students with mathematical methods and applications used in programming applications and in algorithm development. Topics introduced in the second semester are sets and counting, probability, statistics, difference equations, graph theory and trees. Topics stress discrete mathematics.

MAT 129 GE MST

- **PRECALCULUS I**

Credits: 4 (4-0)

Prerequisite(s): Appropriate score on the college placement test and/or satisfactory score on the diagnostic examination, "B" or better in MAT 014 or MAT 014A/MAT 014B, or departmental approval

Emphasis is on those topics from algebra and trigonometry that best prepare students for the first course in calculus. The areas of study are algebraic and transcendental functions and their graphs. Of special interest are polynomials, rational, exponential, logarithmic and trigonometric functions. Additional topics include vectors, polar coordinate systems, matrics and determinants. TI83/84 graphing calculator required.

MAT 129A GE MST

- **PRECALCULUS I (PART A)**

Credits: 2 (3-0)

Prerequisite: Appropriate score on the college placement test and/or satisfactory score on the diagnostic examination, "C" or better in MAT 014 or MAT 014A/MAT 014B, or departmental approval

This first half of a two-semester Precalculus course designed to give students extended enrichment to prepare for a first course in calculus. Emphasis is on algebra topics to develop skills properly and a thorough understanding of the concepts needed to proceed to Calculus. Topics include the study of algebraic functions and their graphs. Of special interest are polynomials and rational functions. TI83/84 graphing calculator is required.

MAT 129B GE MST

- **PRECALCULUS I (PART B)**

Credits: 2 (3-0)

Prerequisite: MAT 129A, or equivalent

The second half of a two-semester Precalculus course designed to give students extended enrichment to prepare for a first course in calculus. Emphasis is on exponential, logarithmic and trigonometric functions and their properties to develop skills properly for a thorough standing of the concepts needed to go on to calculus. TI83/84 graphing calculator required.

MAT 131 GE MST

- **ANALYTIC GEOMETRY AND CALCULUS I**

Credits: 4 (4-0)

Prerequisite(s): MAT 129, MAT 129A/MAT 129B or equivalent, or appropriate score on the college placement test or satisfactory score on the diagnostic examination, or departmental approval

Presents fundamental ideas of calculus such as the derivative, integral and their applications. Topics include fundamentals of analytic geometry. The first course in a sequence of calculus courses intended for the student interested in mathematics, engineering and the natural, physical and social sciences. TI83/84 graphing calculator required.

MAT 131A GE MST

- **ANALYTIC GEOMETRY AND CALCULUS IA**

Credits: 2 (3-0)

Prerequisite(s): MAT 129, MAT 129A/MAT 129B, or appropriate score on the college placement test and/or satisfactory score on the diagnostic examination, or departmental approval

The first half of a two-semester sequence of analytic geometry and Calculus I. Presents fundamental ideas of calculus, such as the derivative and integral and their applications. Topics include fundamentals of analytic geometry and transcendental functions. The first course in a sequence of calculus courses intended for the student interested in mathematics, engineering, and the natural, physical and social sciences. TI83/84 graphing calculator required.

MAT 131B GE MST

- **ANALYTIC GEOMETRY AND CALCULUS IB**

Credits: 2 (3-0)

Prerequisite(s): MAT 131A or equivalent

The second half a two-semester sequence of analytic geometry and Calculus I. Presents fundamental ideas of calculus, such as derivative and integral and their applications. Topics include fundamental of analytic geometry and transcendental functions. This is the first course in a sequence of calculus courses intended for the student interested in mathematics, engineering and the natural, physical and social sciences. TI83/84 graphing calculator is required.

MAT 132 GE MST

- **ANALYTIC GEOMETRY AND CALCULUS II**

Credits: 4 (4-0)

Prerequisite(s): MAT 131 or equivalent

Topics include trigonometric and hyperbolic functions, areas, centroids, techniques of integration, parametric curves and vectors, indeterminant forms, Taylor's formula, infinite series and topics in analytic geometry. *Recommended for students majoring in engineering, mathematics, computer science, social sciences and the science related areas of chemistry and physics.* TI83/84 graphing calculator is required.

MAT 206 GE MST

INTRODUCTION TO DISCRETE MATHEMATICS

Credits: 4 (4-0)

Prerequisite(s): MAT 132 or written permission of the department chairperson

This is the first course in discrete mathematics. Topics include number theory, sets, functions and sequences, relations, recurrence relations, counting techniques, logic and techniques of proofs, graphs and algorithms. This course prepares students for further study in mathematics and computer science.

MAT 210 GE MST

LINEAR ALGEBRA

Credits: 4 (4-0)

Prerequisite(s): MAT 132

Covers geometric vectors, vector spaces, systems of linear equations, determinants, linear transformations, matrix algebra and the applications of matrices to the engineering, social and management sciences. Advanced topics include linear product spaces, eigenvalues and vectors, canonical forms and computations via the computer. Applications include linear differential equations, linear programming, and stochastic processes. Students utilize computer software to solve real-life problems and to facilitate computations involving the mathematical operations listed above.

MAT 233 GE MST

ANALYTIC GEOMETRY AND CALCULUS III

Credits: 4 (4-0)

Prerequisite: MAT 132 or equivalent

Emphasis is on the study of analytic geometry and calculus in three dimensions. Topics include solid analytic geometry, partial derivatives, multiple integrals and topics in vector analysis such as Green's theorem, the divergence theorem, surface integrals and Stokes theorem. Recommended for students majoring in engineering, mathematics, computer science, social sciences and the science related fields of chemistry and physics.

MAT 234 GE MST

DIFFERENTIAL EQUATIONS

Credits: 4 (4-0)

Prerequisite(s): MAT 233 or written permission of the department chairperson

An introduction to differential equations for students interested in mathematics, and the physical and social sciences. Covers first- and second-order differential equations and systems of first-order equations, both linear and non-linear. Quantitative and numerical analysis are emphasized along with analytic techniques, such as Laplace transforms and matrix methods. Applications and modeling of real phenomena are discussed throughout the course.

MAT 257 GE MST

SELECTED TOPICS IN MATHEMATICS

Credits: 3 (3-0)

Prerequisite(s): MAT 132 or departmental approval

Introduces students to a branch of mathematics selected from one or more of the following areas: chaos and fractals, combinatorics, complex variables, graph theory, history of mathematics, logic, number theory, probability and topology. The course is recommended for students interested in learning more about theoretical mathematics.

MAT 285 GE MST

BASIC STATISTICS FOR BUSINESS

Credits: 4 (4-0)

Prerequisite(s): MAT 131 or equivalent calculus course

An in-depth study of descriptive statistics, probability, theory, sampling distributions, principles of hypothesis testing, analysis of variance and regression analysis. The material is designed to give students the knowledge and skills for gathering, organizing and interpreting statistical data as relevant to business. This course will also provide a sound foundation for the study of more advanced topics.

MECHANICAL ENGINEERING TECHNOLOGY

(For related courses see also Engineering Technology, MCT 101: Introduction to Engineering Technology and MCT 220 Introduction to Robotics and Control Systems; see also Civil/Construction and Engineering Technology, CMT 124: Applied Technical Graphics/CAD III)

MEC 119

GRAPHIC SCIENCE

Credits: 2 (1-3)

A study of the graphical language specifically designed for the engineering science student. Emphasizes the interpretation of engineering drawings used to communicate ideas in the major engineering disciplines. Topics include: techniques of drafting and sketching and interpretation of chemical, civil, electrical, electronic, mechanical and welding engineering drawings. Laboratory time is divided between using (CAD), computer-aided drafting and sketching techniques to complete required drawings.

MEC 123

TECHNICAL GRAPHICS/CAD I

Credits: 3 (0-6)

A study of the graphic language of engineering and technology to include linework, lettering, geometric construction, orthographic projection, pictorial, sectional and auxiliary views and dimensioning techniques. Laboratory time is divided between technical sketching and drawings produced using AutoCad software.

MEC 125

ADVANCED MECHANICAL DRAWING/CAD II

Credits: 3 (1-4)

Prerequisite(s): MEC 123

The study of mechanical working drawings including detail, assembly, piping and welding drawings. Also included are dimensioning techniques, geometric dimensioning and tolerancing, fits and tolerances of mating parts, threads, fasteners and surface finish. Advanced use of CAD (Computer-Aided Drafting) software that includes creating template files, drawing layouts/paper space, blocks, attributes, external references, revision tables, notes and BOM (Bill Of Material). Introduction to piping and welding drawings. Introduction to solid modeling, including part creation and orthographic and isometric drawing creation. The completion of a comprehensive final project is required.

MEC 130

MANUFACTURING PROCESSES MATERIALS

Credits: 3 (3-3)

A study of materials (metallic and non-metallic), their engineering properties and the methods used to manufacturing to process these materials into useful products. Concurrent laboratory projects provide hands-on experience in areas of testing, modifying properties and the processes used in manufacturing to convert these materials into useful products.

MEC 204

- **FLUID MECHANICS**

Credits: 4 (3-3)

Prerequisite(s): CIT 105 and MAT 129 or MAT 129B

A study of the basic principles of conservation of energy, continuity of flow, and fluid mechanics as related to fluid systems at rest and in motion. Laboratory experiments provide hands-on experience in the set-up, operation, analysis and design of fluid systems. Computer software is used in several analysis and design projects. Oral presentation required.

MEC 221

- **ENGINEERING MECHANICS I**

Credits: 3 (3-0)

Prerequisite(s): MAT 131

Basic concepts for the study of force systems and Newtonian mechanics, trusses, frames, torsion, bending, friction, centroids and moments of inertia. Engineering examples are stressed to develop understanding and application skills.

MEC 222

- **ENGINEERING MECHANICS II**

Credits: 3 (3-0)

Prerequisite(s): MEC 221

A continuation of MEC 221. Deals with the displacements, velocities, accelerations of bodies and the forces which cause the motion. Topics include kinematic and kinetic analysis of rectilinear, curvilinear, rotational and plane motion of bodies. Stresses engineering applications.

MEC 228

- **KINEMATICS DESIGN**

Credits: 3 (1-4)

Prerequisite(s): MEC 123 and MAT 129 or MAT 129B

A study of the displacements, velocities and accelerations associated with the motion of mechanisms including four bar linkages, cams and gears. Also included is an examination of the dynamic forces generated by the mechanisms. Solutions to dynamics problems are obtained by making use of analytical techniques, using a programmable calculator, as well as appropriate computer software.

MEC 250

- **SOLID MODELING**

Credits: 3 (0-6)

Prerequisite(s): MEC 123

An introductory course to familiarize students with feature-based parametric parts modeling. Students will be involved with outline sketching and sketch profiling, constraining, dimensioning and viewing different viewports. Techniques such as profile extrusion, revolving and sweeping, feature editing, creating work axis, making active sketch planes and creating work planes and points. Students will also master controlling object visibility; cutting, joining and intersecting operations; fillets, chamfers, holes and arrays; dimension display and equations; and assigning design variables.

MEC 260

- **MECHANICAL DESIGN TITLE**

Credits: 2 (1-2)

Prerequisite(s): MEC 228

Corequisite(s): MEC 204, MCT 220

Students working in teams, integrate their knowledge of theoretical concepts and practical applications of kinematics, robotics, manufacturing, statics, fluids, electrical, electronics and graphics to complete a comprehensive design project. Emphasis will be in areas related to pharmaceutical, orthotics, medical devices and instruments, instrumentation, fluid transport, precision manufacturing and assembly. Oral presentation and a technical report are required.

MEDIA ARTS AND DESIGN

(For related courses see also Advertising Graphics Design, Digital Media Arts and Photography)

MAD 102

- **ART IN HISTORY AND COMMERCE**

Credits: 3 (3-0)

A study of the historical and current interrelationships of the visual arts with science and technology; and of both of their influence on, and their being influenced by, the historical development of business, commerce and industry. Areas of mutual interaction covered include: architecture, industrial design, packaging, corporate identity, advertising and marketing, fine arts, photography, computers, and film and video.

MAD 107

- **PHOTOGRAPHY I**

Credits: 3 (2-3)

The theory, practice, technique and technology of black and white still photography. Students learn about: use of the camera, composition, lighting, exposure control, use of filters, film and paper processing and printing. Students have access to extensive darkroom facilities. Students are required to have their own manually settable 35mm SLR camera.

MAD 108

- **PHOTOGRAPHY II**

Credits: 3 (2-3)

Prerequisite(s): MAD 107

Emphasizes creative visual communication. Students will utilize various types of black & white and color transparency film. Through projects, they will explore the challenges of lighting in different locations and conditions, including the effective use of available light and electronic and studio flash lighting. The use of Darkroom equipment and fiber-based printing methods will be practiced. Students will be introduced to digital photographic practices, computer photo manipulation and digital printouts.

MAD 113

- **TWO-DIMENSIONAL DESIGN**

Credits: 3 (2-3)

Introduction to principles and characteristics of light, color and design. The interaction of colors is stressed using student projects and computer interactivity. Two-dimensional surfaces and their compositional possibilities are studied and related to increasingly complex graphic concepts. Computer graphic design applications are introduced.

MAD 114

- **THREE-DIMENSIONAL DESIGN**

Credits: 3 (2-3)

Students acquire an understanding of planes, volume, mass and space, as they apply to three-dimensional forms. Original structural concepts are developed from sketches to completion. Issues of color, decoration and texture are addressed through experimentation with a variety of materials. Hand skills such as measuring, cutting, folding and assembling are stressed throughout the semester.

MAD 117

- **FREEHAND DRAWING**

Credits: 3 (2-3)

Students develop a firm foundation in the fundamentals of drawing for design. Visual awareness is developed through study of composition, line, form and value. Drawing is learned through careful observation when working from life and secondary sources such as photographs. Techniques for illustration are learned through the use of various media and discussed in terms of their application in the field of advertising. Materials studied include pencil, charcoal, markers and water media.

MAD 118

- **GRAPHIC DESIGN SKILLS**

Credits: 3 (2-3)

A general introduction to graphic design studio skills, this course lays the foundation for advanced design classes. Topics include the design ideation process, basic graphic design principles and use of professional design software. Students will be introduced to Illustrator, Photoshop, Indesign and QuarkXPress as they learn drawing, scanning, image editing and layout for print production. Correct setup of digital mechanicals and presentation skills are stressed.

MEDICAL LABORATORY TECHNOLOGY

MED 101

- **INTRODUCTION TO THE MEDICAL LABORATORY I**

Credits: 2 (1-2)

Prerequisite(s): Admission to the Medical Laboratory Technology program required

Basic understanding of medical laboratory terminology, safety, specimen collection, and manual procedures in hematology, hemostasis, body fluids, immunohematology and serology. Lectures are combined with laboratory experiences. Stresses medical ethics.

MED 102

- **INTRODUCTION TO THE MEDICAL LABORATORY I**

Credits: 3 (2-3)

Prerequisite(s): BIO 117; CHM 117; ENG 121; MAT 107 and MED 101

Continuation of MED 101. Emphasis on clinical chemistry, clinical microbiology and safety in the laboratory. Provides hands-on experience with those concepts and techniques essential to medical laboratory technology students. Laboratory experiences include manual methods with principles on techniques and accuracy being stressed.

MED 210

- **MEDICAL LABORATORY TECHNOLOGY I**

Credits: 6 (3-12)

Prerequisite(s): BIO 118; CHM 118; ENG 122; MAT 108; MED 102 and written permission of the department chairperson

Basic medical terminology, organization of hospital laboratories and rules of ethical behavior. Stresses the practical side of basic laboratory work in the areas of specimen collection, hematology, urinalysis, blood banking, serology, clinical chemistry, microbiology, quality control, etc. Includes on-the-job education in laboratory work. Students supervised by medical technologists and specialists. May not be audited. An eight week, 40 hours a week, summer clinical experience.

MED 211

- **MEDICAL LABORATORY TECHNOLOGY II**

Credits: 8 (4-16)

Prerequisite(s): MED 210

A study of the theoretical and practical aspects of hematology, coagulation, urinalysis, serology and blood banking. Clinical instruction and technique are obtained in affiliated hospitals under the supervision of medical technologists and specialists. May not be audited. Requires 16 hours a week in a hospital laboratory.

MED 212

- **MEDICAL TECHNOLOGY III**

Credits: 8 (4-16)

Prerequisite(s): BIO 211 and MED 211

Continuation of MED 211. Includes microbiology and parasitology and clinical chemistry. Clinical instruction and technique are obtained in affiliated hospitals. May not be audited. Requires 16 hours a week in a hospital laboratory.

MUSIC

MUS 107 GE HUM

- **INTRODUCTION TO MUSIC**

Credits: 3 (3-0)

Contemporary and classical music will be dealt with as integral parts of today's musical scene. Students listen, discuss, analyze and evaluate music in order to increase appreciation and understanding. Attendance at a minimum of two professional College performances required.

MUS 123 GE HUM

- **MUSIC HISTORY: TRADITIONAL**

Credits: 3 (3-0)

Understanding and appreciation of music from the historical point of view. Major periods studied include the classical, the baroque and the romantic. Course fee and field trip are required. Required of music majors.

MUS 124 GE HUM

- **MUSIC HISTORY: CONTEMPORARY**

Credits: 3 (3-0)

Understanding and appreciation of music from the historical point of view. Special emphasis on the music of Tchaikovsky, Debussy, Stravinsky and twentieth-century American music. Course fee and field trip are required. Required of music majors.

MUS 130

- **GUITAR I**

Credits: 3 (3-0)

Guitar for the beginning student. Enables the beginner to read fundamental music notation and play guitar. Basics of technique, sight-reading and elementary literature. Students must supply their own instruments. Listening to great music. Attendance is required at two professional concerts. Written concert reviews must be submitted. Students are responsible for concert fees.

MUS 131

- **KEYBOARD STUDIES I**

Credits: 3 (3-0)

Students develop an appreciation and understanding of great keyboard composers, performers and literature by giving them the ability to read and play keyboard music. Fundamentals of technique, keyboard harmony and sight-reading. Attendance at two professional concerts required. Written concert reviews must be submitted. Students are responsible for concert fees. Required for music majors. Open to non-music majors.

MUS 132

- **KEYBOARD STUDIES II**

Credits: 3 (3-0)

Prerequisite(s): MUS 131

A continuation of MUS 131 with further emphasis on great keyboard literature. Students are introduced to more difficult keyboard harmony, sight-reading and more advanced techniques. Listening to great keyboard literature. Attendance is required at two professional keyboard concerts. Written concert reviews must be submitted. Required for music majors. Open to non-music majors.

MUS 133

- **APPLIED MUSIC STUDIO I**

Credits: 2 (1-2)

One hour private instruction weekly in piano, organ, voice or orchestral instruments. Credit to be determined through recital. To be arranged with the music faculty and the department chairperson. Students must have studied formally for a minimum of two years, or play on a two-year level. Fee is approximately $50 per lesson.

MUS 134

- **APPLIED MUSIC STUDIO II**

Credits: 2 (1-2)

For course description and fee, see MUS 133.

MUS 136

- **GUITAR II**

Credits: 3 (3-0)

Prerequisite(s): MUS 130 or written permission of the instructor

Intermediate guitar technique, including choral accompaniment and solos. Use of standard notation. Students must supply their own instrument. Listening to great music. Attendance at two professional concerts. Written reports must be submitted. Students are responsible for concert fees.

MUS 140

- **MUSIC FUNDAMENTALS**

Credits: 3 (3-0)

An introduction to the study of music theory. The course concentrates on the basic elements of pitch, rhythm, scales, intervals and triads. Notational skills will be developed and aural recognition of musical elements will be introduced. A working knowledge of the piano will be developed as theoretical concepts are related to the keyboard. No prior musical training required.

MUS 145

- **MUSIC APPRECIATION: JAZZ HISTORY**

Credits: 3 (3-0)

Provides an understanding and appreciation of jazz history, performers and styles. The social, historical and multicultural forces that influenced the work of the jazz musician will be included. Improvisation will be studied while listening to representative selections of jazz compositions. Attendance at two professional concerts is required. Written concert reviews must be submitted. Course fee required.

MUS 201

- **MUSIC NOTATION AND COMPOSITION I**

Credits: 3 (3-0)

Prerequisite(s): MUS 140 or passing score on music theory placement test

A practical approach to music encompassing analysis, basic harmonic writing and ear training. Designed for students with some previous musical background. Required of music majors.

MUS 202

- **MUSIC NOTATION AND COMPOSITION II**

Credits: 3 (3-0)

Prerequisite(s): MUS 201

Continuation of MUS 201. Students build musical skills in analysis, harmonic writing and ear training. Required of music majors.

MUS 207

- **APPLIED MUSIC STUDIO III**

Credits: 2 (1-2)

For course description, see MUS 133.

MUS 208

- **APPLIED MUSIC STUDIO IV**

Credits: 2 (1-2)

For course description, see MUS 133.

NURSING

NRB 121

- **NURSING CONCEPTS IN HEALTH AND WELLNESS**

Credits: 7 (4-3-6)

Prerequisite(s): American Heart Association Basic Life Support (BLS) Certification for Health Care Providers

Corequisite(s): BIO 111, ENG 121, PSY 232

This course explores the concepts of man, environment, health and nursing in a holistic approach to health and wellness. Nursing process, communication principles and techniques, physical assessment, teaching/learning theory, professional role and practice responsibilities, therapeutic modalities and nursing interventions are studied, as well as the life-style factors that may influence a client's health state. Faculty supervised learning laboratory and clinical practice provides students with opportunities to develop the cognitive and psychomotor skills related to clinical competencies: physical assessment, client safety, hygiene, activity, nutrition, fluid and electrolyte balance, comfort, rest and sleep, elimination, oxygenation as well as the therapeutic modalities of surgery and pharmacotherapy. Practicum experiences are provided in a variety of settings.

NRB 122

- **NURSING CONCEPTS IN HEALTH ALTERATIONS I**

Credits: 9 (5-3-9)

Prerequisite(s): NRB 121, BIO 111, PSY 123

Corequisite(s): BIO 112, PSY 232

This course builds on previous learning and develops clinical competencies in the role of provider of care and educator for the client and family experiencing the psychophysiologic effects of acute and chronic phases of health alterations and their therapeutic modalities. The focus of this course is evidence-based nursing care using the nursing process and systematic nursing assessment to plan and implement nursing interventions determined by the client's individualized health care needs. Faculty supervised clinical and laboratory experiences provide students the opportunity to plan and implement nursing care to clients experiencing health alterations in a variety of health care settings. Communication skills, professional nursing practice standards and behaviors, as well as implementation of teaching/learning theory are incorporated throughout the course.

NRB 221

- **NURSING CONCEPTS APPLIED TO FAMILIES**

Credits: 9 (5-3-9)

Prerequisite(s): NRB 122, PSY 232, BIO 112

Corequisite(s): BIO 211, HRI 214

The nursing process is used to plan and implement evidence based nursing interventions for members of a family unit experiencing developmental, physical and/or mental health changes or alterations. During childbearing and childrearing the promotion and maintenance of holistic health and wellness is emphasized. Health restoration is incorporated in discussion of reproductive issues, developmental tasks, psychosocial issues, adaptive mechanisms as sell as other factors influencing health. Faculty supervised clinical and laboratory experiences provide students the opportunity to practice clinical competencies appropriate to the role of provider of care, educator, counselor and patient advocate. Communication skills, professional nursing practice standards and behaviors, as well as implementation of teaching/learning theory are incorporated throughout the course.

NRB 222

- **NURSING CONCEPTS IN HEALTH ALTERATIONS I**

Credits: 10 (5-3-12)

Prerequisite(s): NRB 221, BIO 112, BIO 211, HRI 214

This course concentrates on clients and families dealing with mental health and/or physiological crisis. Current issues in health care and nursing care delivery systems, including management styles, leadership, delegation and conflict resolution are explored. Experiences in critical care nursing units and acute care facilities provide students the opportunity to practice clinical competencies appropriate to the role of provider of care, educator, counselor, patient advocate and manager. Communication skills, adherence to professional nursing practice standards and regulations and implementation of teaching/learning theory to clients and groups are incorporated throughout the course.

PARALEGAL STUDIES

PLS 100

- **INTRODUCTION TO THE PARALEGAL PROFESSION**

Credits: 2 (2-0)

An introduction to the functions and duties of the paralegal. Students explore the regulation of paralegals, rules of ethics, privilege and ABA considerations. Students are introduced to the court system and law office routines.

PLS 101

- **LEGAL RESEARCH**

Credits: 3 (3-0)

Prerequisite(s) or Corequisite(s): ENG 121, PLS 100

An introduction to the American legal system and the New Jersey court system. Students use the law library including encyclopedias, reporter systems, digests and administrative codes including updating sources. Students are introduced to the use of computer assisted research by use of Westlaw.

PLS 104

- **PROPERTY TRANSACTIONS**

Credits: 4 (4-0)

Prerequisite(s): PLS 100, PLS 101, PLS 113

Prerequisite(s) or Corequisite(s): PLS 121

Forms and procedures used in real and personal property transactions including the Real Estate Settlement Procedures Act.

PLS 105

- **FAMILY LAW**

Credits: 3 (3-0)

Prerequisite(s): PLS 100, PLS 101, PLS 113

Prerequisite(s) or Corequisite(s): PLS 121

A study of the substantive and procedural aspects of family law in such areas as divorce, adoption, support and separation agreements, including domestic relations court procedures.

PLS 106

- **WILLS AND ESTATE ADMINISTRATION**

Credits: 3 (3-0)

Prerequisite(s): PLS 100, PLS 101, PLS 113

Prerequisite(s) or Corequisite(s): PLS 121

A study of the substance and procedure of estate administration with respect to wills, estates, trusts, probate, life insurance, federal and state taxes.

PLS 107

- **LAW OFFICE MANAGEMENT**

Credits: 3 (3-0)

Prerequisite(s): PLS 100, PLS 101, PLS 113

Prerequisite(s) or Corequisite(s): PLS 121

A study of the basics of law office management including accounting procedures, scheduling, filing and office systems.

PLS 108

- **TORTS**

Credits: 3 (3-0)

Prerequisite(s): PLS 100, PLS 101, PLS 113

Prerequisite(s) or Corequisite(s): PLS 121

A study of the principles of tort law, their application in commonly faced situations in law practice and the role of the paralegal in the preparation of a tort claim or defense.

PLS 109

- **CRIMINAL LAW AND PROCEDURE**

Credits: 3 (3-0)

Prerequisite(s): PLS 100, PLS 101, PLS 113

Prerequisite(s) or Corequisite(s): PLS 121

A study of the elements of crime and the criminal procedure system including incidents before and after trial and an analysis of the impact of the Constitution on crimes and criminal procedure.

PLS 110

- **LITIGATION PROCEDURE**

Credits: 4 (4-0)

Prerequisite(s): PLS 100, PLS 101, PLS 113

Prerequisite(s) or Corequisite(s): PLS 121

A study of the rules governing courts and litigation procedures including client interviews, complaints, motions, discovery and appeals.

PLS 111

- **CONTRACTS AND THE UNIFORM COMMERCIAL CODE**

Credits: 3 (3-0)

Prerequisite(s): PLS 100, PLS 101, PLS 113

Prerequisite(s) or Corequisite(s): PLS 121

A study of the substantive law of contracts, sales law and commercial paper. In applicable areas, the Uniform Commercial Code is covered as well as common law principles.

PLS 112

- **BUSINESS ORGANIZATIONS AND GOVERNMENT REGULATIONS**

Credits: 3 (3-0)

Prerequisite(s): PLS 100, PLS 101, PLS 111, PLS 113, PLS 121

Detailed study of the substantive law of agency and employment, security devices, bankruptcy, partnerships and corporations. (In applicable areas the Uniform Commercial code is covered as well as common law principles.)

PLS 113

- **LEGAL WRITING**

Credits: 2 (2-0)

Prerequisite(s) or Corequisite(s): PLS 100, PLS 101

A writing course focusing on the tasks commonly encountered by paralegals. Topics covered include legal correspondence, opinion letters, briefs and memoranda, Emphasis will be placed on clarity and precision in the use of language

PLS 121

- **ADVANCED LEGAL RESEARCH**

Credits: 2 (2-0)

Prerequisite(s) or Corequisite(s): PLS 100, PLS 101, PLS 113

A continuation of the study of legal research using online resources, with an emphasis on Westlaw and the Internet.

PLS 123

- **ADVANCED LEGAL WRITING**

Credits: 2 (2-0)

Prerequisite(s): PLS 100, PLS 101, PLS 113

A two semester (fall/spring, spring/fall combination) independent study writing course focusing on the preparation of legal memoranda as well as citation form. Emphasis will be placed on clarity and precision in the use of language.

PLS 208

- **PARALEGAL FIELD EXPERIENCE**

Credits: 3 (1-12)

Prerequisite(s): PLS 100, PLS 101, PLS 110, PLS 113, PLS 121 and PLS 104 or PLS 108 or PLS 109 and permission of the program director

A cooperative work experience program whereby students are employed in law-related positions to gain some of the practical experience necessary for success as paralegals. The College, through on-the-job visits and individual progress review sessions, provides supervision of these departmentally approved positions. Students are required to establish learning objectives related to their positions to attain specific job competencies. Students attend a class on campus and work approximately 20 hours a week for a minimum of 180 hours during the semester. *Individuals must be recommended by the chair or assistant chair of the department.*

PLS 280

- **SENIOR SEMINAR FOR PARALEGALS**

Credits: 3 (3-0)

Prerequisite(s): PLS 100, PLS 101, PLS 104, PLS 108, PLS 110, PLS 111, PLS 112, PLS 113, PLS 121 (LT AND LTT candidates should see program director)

Students integrate their knowledge of theoretical concepts and practical application of the legal research, litigation, property, torts and business law through case analysis and completion of assigned projects.

PHARMACY

PHA 101

- **INTRODUCTION TO PHARMACY**

Credits: 4 (3-2)

Prerequisite(s): CHM 107 and MAT 013 or passing score on algebra portion of the college placement test

An introduction to the field of Pharmacy dealing with the daily activities that occur in pharmacy settings such as hospitals, nursing homes, home health care and community pharmacies. The course will teach many aspects of pharmacy including medical terminology, prescriptions and medications, pharmaceutical calculations, aseptic techniques, pharmacy law and pharmaceutical repackaging.

PHILOSOPHY

PHI 121 GE HUM

- **PHILOSOPHY**

Credits: 3 (3-0)

Background, fundamental problems and developing types of philosophy as expressed in selected writings of major classical and modern philosophers of the Western tradition.

PHI 122 GE HUM

- **LOGIC**

Credits: 3 (3-0)

Elementary presentation of the basic tools of logic. The nature and purpose of definition, concepts of truth and the pitfalls of language. The modern methods of symbolic logic are employed throughout.

PHI 123 GE HUM

- **ETHICS**

Credits: 3 (3-0)

The philosophical foundations of Western moral/ethical theory, including natural law, social contract theory, Kantian duty and utilitarianism. These approaches are employed to consider solutions to such moral dilemmas as abortion, nuclear weaponry, poverty and euthanasia.

PHOTOGRAPHY

(Professional Commercial Photography-See Media Arts and Design for prerequisite courses.)

PCP 221

- **COLOR PRINTING METHODS AND PRACTICE**

Credits: 3 (2-3)

Prerequisite(s): All MAD courses

A study of color photography for traditional and digital darkroom processes: Materials and techniques are explored. This will include: subtractive color printing, digital photography, scanning and printing of digital files, color management systems, production of QuickTime VR panoramics, alternative processes and archival mounting of color prints. Students will create a portfolio of color photography.

PCP 224

- **DIGITAL IMAGERY**

Credits: 3 (2-3)

Prerequisite(s): PCP 221 and PCP 225

Advanced study of Adobe Photoshop for RGB image modification, creation and output. Included are subjects such as: photo manipulation and retouching, combining grabbed, scanned and digital photographs. Animated giffs, panoramic digital imagery and digital photography. Image output for traditional as well as new media are examined.

PCP 225

- **PRODUCT AND STOCK PHOTOGRAPHY**

Credits: 3 (1-4)

Prerequisite(s): All MAD courses

Course focuses on professional studio and stock photography for print and electronic distribution. Students will have extensive hands-on experience with professional photographic equipment for the studio and location shooting. This includes the use of the view camera and accessories, studio lighting equipment and digital cameras. Specific areas of photographic practice with regard to advertising, stock, packaging and new media will be explored through assignments, lectures and demonstrations.

PCP 226

- **PROFESSIONAL/STUDIO PHOTOGRAPHY**

Credits: 3 (2-3)

Prerequisite(s): All MAD courses

Studio and location portraiture and photojournalistic techniques are explored. Medium format cameras, Digital SLR cameras and controlling color for digital output are stressed. Photography of special events, group and individual portraiture in studio settings and on location are practiced. Printing, finishing and presentation of the final product is also performed. Professional photographic methods, ethics and practices are examined and discussed. Students are expected to perform a minimum of two location shoots, on or off campus, during the day or evening class hours.

PCP 280

- **PORTFOLIO**

Credits: 3 (2-3)

Students learn about job discovery and search, resume creation, both paper and electronic, employment letter writing and interviewing techniques. This is in addition to the primary goal of producing a professional level portfolio, both on paper and in digital/electronic formats. They will also be guided in discovering their professional strengths and goals through an individual self-evaluation process. Field trips are taken. Purchase of portfolio materials will be required.

PHYSICAL EDUCATION

(For related courses, see Health, Recreation and Dance)

PED 108

- **MODERN DANCE**

Credits: 1 (2-0)

Will include practical experiences and technical applications of several modern dance techniques. Students discover dance and its raw elements of space, time and energy. Choreography and improvisation exercises are also included to foster the progress of technical ability. An original dance work will be performed as a final examination.

PED 112

- **TENNIS AND VOLLEYBALL**

Credits: 1 (0-2)

Students perform the basic skills of the activities and apply the rules and playing procedures.

PED 120

- **GOLF**

Credits: 1 (0-2)

Basic instruction in the skills, rules and playing procedures. Students demonstrate appropriate shot-making abilities.

PED 122

- **VOLLEYBALL**

Credits: 1 (0-2)

Students will receive instruction in the skills, playing procedures and strategies of volleyball. Team play will be developed and stressed.

PED 127

- **TENNIS**

Credits: 1 (2-0)

Students receive instruction in the beginning skills playing procedures, etiquette and strategies of tennis.

PED 132

- **BACKPACKING**

Credits: 1 (0-2)

The types of equipment, skills and procedures necessary to plan and undertake a safe backpacking experience. Trip planning and preparation, meeting basic needs and unexpected occurrences and low impact use of the environment. Six on-campus meetings and a weekend trip are required. Students are responsible for providing their own equipment, food and transportation for the weekend.

PED 139

- **EXERCISE, FITNESS AND CONDITIONING**

Credits: 1 (0-2)

Develops an awareness and understanding of the necessity for planned physical activity as it pertains to the enhancement of one's physical, mental and emotional well being. Students are required to participate in exercise programs defined by the instructor. Acquaints the student with proper nutrition. Briefly examines cardiovascular disease and its causes.

PED 140

- **RACQUETBALL**

Credits: 1 (0-2)

The rules, basic strokes, shots and strategies of racquetball. Experience is provided in singles and doubles play.

PED 143

- **BEGINNING SWIMMING**

Credits: 1 (0-2)

Basic water skills including adjustment to the water, overcoming fear, treading water, beginner stroke, crawl stroke, floating and swimming on the back, artificial respiration and basic rescue techniques. American Red Cross guidelines are used. For the non-swimmer and the beginner swimmer.

PED 144

- **INTERMEDIATE SWIMMING**

Credits: 1 (0-2)

A second level course for students who successfully complete the beginning swimming course, PED 143, or demonstrate the ability to swim the crawl with head in the water using rhythmic breathing for at least 50 meters. A variety of strokes and skills including elementary backstroke, basic diving, sidestroke, breast stroke, underwater swimming, various kicks and personal safety skills. American Red Cross guidelines are used.

PED 146

- **STEP AEROBICS**

Credits: 1 (0-2)

Designed to acquaint the student with a lifetime (recreational) fitness activity that combines basic principles and techniques involved in step training. It is executed to music and provides enjoyment through progression in both aerobic capacity and motor skill level.

PED 148

- **BALLET**

Credits: 1 (0-2)

Classical ballet as an art form with emphasis on the technical movement, vocabulary, body alignment and aesthetics. Students will explore academic aspects of ballet as a profession, pertinent historical topics and artistic characteristics. A required full ballet movement study is part of the final examination.

PED 210

- **SCIENTIFIC PRINCIPLES OF FITNESS**

Credits: 3 (3-0)

The physiological basis of fitness. Students explore the areas of strength, muscular and cardiovascular endurance, flexibility and nutrition. Students demonstrate, design and implement correct programs in these areas.

PED 225

- **FIRST AID, CPR AND SAFETY EDUCATION**

Credits: 3 (3-0)

The theory and practice of professional rescuer CPR and basic first aid skills. Topics covered include accident and disease prevention, body systems, respiratory and cardiac emergencies and sudden illnesses. The ability to recognize serious medical emergencies and the course of action are the basic components of this course. American Red Cross certification(s) will be presented to qualified students.

PED 245

- **ARC LIFEGUARD TRAINING, CARDIOPULMONARY RESUSCITATION AND STANDARD FIRST AID**

Credits: 3 (3-0)

Prerequisite(s): Students must be 15 years of age at the beginning of the course

Swim 500 yards continuously, using each of the following strokes for at least 100 yards each: crawl stroke, breaststroke and sidestroke. Submerge to a minimum depth of 7 feet, retrieve a 10-pound object and return with it to the surface. There is no time requirement for this skill. Tread water for 2 minutes using legs only. Participants cross their arms across their chest and place their hands under their armpits. Provides the lifeguard candidates with the skills and knowledge necessary to keep patrons of aquatic facilities safe in and around the water. Upon successful completion of all course requirements students will receive the American Red Cross Lifeguarding/ First-Aid Certificate and CPR for the Professional Rescuer Certificate. Students may take the course for college credit without becoming a certified lifeguard.

PHYSICS

PHY 010

- **BASIC PHYSICS**

Credit equivalent(s): 4 (4-2)

Corequisite(s): MAT 014 or equivalent

A one-semester non-credit introductory physics course designed to give students sufficient background to enter into non-calculus physics courses.

PHY 101 GE MST

- **PRINCIPLES OF PHYSICS**

Credits: 4 (3-2)

Prerequisite(s): MAT 107 or equivalent

Includes an introduction to Newtonian mechanics with application of the conservation laws to physical systems. Electromagnetism and geometrical optics are introduced at an elementary level. Topics in wave propagation, thermodynamics, atomic and nuclear physics.

PHY 115 GE MST

- **COLLEGE PHYSICS I**

Credits: 4 (2-4)

Emphasizes problem-solving methods for a technological environment. Students will use computers in the laboratory for developing programming skills and for the analysis of experimental data. Topics include kinematics and dynamics, conversation of energy and momentum, waves, temperature and heat and thermodynamics. The first course in a two-course trigonometry based physics sequence.

PHY 116 GE MST

- **COLLEGE PHYSICS II**

Credits: 4 (2-4)

Prerequisite(s): PHY 115

Emphasizes problem-solving methods for a technological environment. Students will use computers in the laboratory for developing programming skills and for the analysis of experimental data. Topics include electrostatics, direct current circuits, electromagnetism, alternating currents, electromagnetic waves, geometrical and physical optics, quantum theory, atomic physics and nuclear physics. The second course in a two course trigonometry-based physics sequence.

PHY 121 GE MST

- **GENERAL PHYSICS I**

Credits: 4 (4-2)

Prerequisite(s): MAT 129

Emphasizes theoretical models and basic physical principles. The course is precalculus based and uses some basic calculus in the development and applications of physical principles in a scientific environment. Students will use computers in the laboratory for developing programming skills for the analysis of experimental data. Topics include kinematics, dynamics, conservation of energy and momentum, waves, temperature and heat and thermodynamics. The first semester of a two-semester college-parallel sequence for liberal arts science and pre-professional students.

PHY 122 GE MST

- **GENERAL PHYSICS II**

Credits: 4 (4-2)

Prerequisite(s): PHY 121

Emphasizes theoretical models and basic physical principles. The course is precalculus-based and uses some basic calculus in the development and applications of physical principles in a scientific environment. Students will use computers in the laboratory for developing programming skills and for the analysis of experimental data. Topics include electro-statics, direct current circuits, electromagnetism, alternating currents, electromagnetic waves, geometrical and physical optics, quantum theory, atomic physics and nuclear physics. The second semester of two-semester college-parallel sequence for liberal arts science and pre-professional students.

PHY 131 GE MST

- **ANALYTICAL PHYSICS I**

Credits: 4 (4-2)

Prerequisite(s): One year of high school laboratory physics

Corequisite(s): MAT 131 or equivalent

A calculus-based general physics course. Topics include statics, kinematics, dynamics and the conservation of energy and momenta. Appropriate computer and laboratory experiences are included. The first course in a three-course series consisting of PHY 131, PHY 132 and PHY 231.

PHY 132 GE MST

- **ANALYTICAL PHYSICS II**

Credits: 4 (4-2)

Prerequisite(s): PHY 131

Corequisite(s): MAT 132 or equivalent

A continuation of PHY 131. Topics include wave motion, special relativity, thermodynamics, electrostatics and DC circuits. Appropriate computer and laboratory experiences included. The second course in a three-course series consisting of PHY 131, PHY 132 and PHY 231.

PHY 231 GE MST

- **ANALYTICAL PHYSICS III**

Credits: 4 (4-2)

Prerequisite(s): MAT 132 and PHY 132

Continuation of PHY 132. Topics include magnetism, AC circuits, electro magnetic waves, optics and atomic and nuclear physics. Appropriate computer and laboratory experiences included. The third course in a three-course series consisting of PHY 131, PHY 132 and PHY 231.

POLICE SCIENCE

POL 201
- **POLICE ADMINISTRATION**

Credits: 3 (3-0)

The administrative and organizational structures and major functions of representative law enforcement agencies. Allocating responsibility, support functions, command coordination, recruitment and career advancement.

POL 202
- **POLICE OPERATIONS**

Credits: 3 (3-0)

Administration of police line operations, including patrol as the basic police function, investigation, juvenile, traffic and special operational units. Liaison between units, enforcement policy, manpower distribution and analysis of operations.

POL 204
- **LAW ENFORCEMENT AND THE COMMUNITY**

Credits: 3 (3-0)

The relationship between professional police officers and the community they serve with emphasis on ethical standards, human relations, civil rights and community service. The attitudes and actions of the police and the public that lead to both positive and negative relationships between them.

POLITICAL SCIENCE

POS 121 GE SS
- **INTRODUCTORY GOVERNMENT AND POLITICS**

Credits: 3 (3-0)

Surveys the field of political science including an analysis of the discipline as an academic pursuit and a profession. Themes are theory, behavior and public opinion, parties and interest groups, public administration, law, comparative government and international relations. Includes a case study of the most recent U.S. presidential election.

POS 131
- **INTRODUCTION TO PUBLIC ADMINISTRATION**

Credits: 3 (3-0)

A survey of the practices and political relationships in Public Administration is explored. Factors such as leadership and managerial styles are examined as are techniques typically employed in the decision-making consensus of Public Policy development. Analysis of personnel recruitment and retention, budgetary analysis and compliance and the relationship of the bureaucracy and the elected official are examined. The interaction and devolution between and among all levels of government are considered in detail.

POS 201 GE SS
- **UNITED STATES STATE AND LOCAL GOVERNMENT**

Credits: 3 (3-0)

A comparative analysis of the state, county and municipal levels of government in the United States is offered. Particular attention is given to New Jersey government and politics, state party organizations, interest groups and electorate behavior, as well as the formal governmental structure.

POS 220 GE SS
- **UNITED STATES NATIONAL GOVERNMENT**

Credits: 3 (3-0)

The organization, powers and procedures of the United States national government are presented along with such topics as the role of political parties, electorate behavior and interest groups as a continuing process of United States politics.

POS 222 GE SS
- **COMPARATIVE GOVERNMENT**

Credits: 3 (3-0)

The political systems of the major western powers and the developing nations compared. Political institutions are viewed against their economic, social and cultural backgrounds.

POS 231
- **CONSTITUTIONAL LAW**

Credits: 3 (3-0)

Prerequisite(s): POS 121 or POS 201 or POS 220

Examines the principal methods by which United States Supreme Court Justices give meaning to Constitutional provisions in the context of individual cases. Particular attention paid to the fundamental importance of a full and coherent understanding of the principles, precedents and problems of America's democratic system.

PSYCHOSOCIAL REHABILITATION

PSR 101
- **INTRODUCTION TO THE PRINCIPLES OF PSYCHOSOCIAL REHABILITATION**

Credits: 3 (3-0)

Enables students to identify the methods by which individuals with severe mental illness are helped in psychosocial rehabilitation and treatment settings. Classroom lectures and seminars provide students with opportunities to explore concepts unique to psychosocial rehabilitation, including history, philosophy and values of psychosocial rehabilitation.

PSR 102
- **COMMUNICATION TECHNIQUES IN INTERVIEWING AND COUNSELING**

Credits: 3 (2-2)

Prerequisite(s) or Corequisite(s): PSR 101 or written permission of the department chairperson

Introduces students to the principles and skills necessary for the effective use of therapeutic communication. The student will learn about values and attitudes impacting on professional interpersonal relationships. Classroom lectures and practice sessions expose students to interviewing and helping principles through active participation in faculty supervised clinical practice.

PSR 103
- **INTRODUCTION TO GROUP DYNAMICS**

Credits: 3 (2-2)

Prerequisite(s) or Corequisite(s): PSR 101 or written permission of the department chairperson

Introduces students to the principles and skills necessary for the effective use of groups to engage people and achieve goals. Classroom lectures and practice sessions to demonstrate group dynamics and group process. Includes participation in a faculty supervised group experience.

PSR 104
- **CLINICAL PRINCIPLES IN PSYCHOSOCIAL REHABILITATION AND TREATMENT**

Credits: 3 (3-0)

Prerequisite(s): PSR 101

Introduces students to an understanding of psychopathology as it is addressed through psychosocial rehabilitation intervention efforts. Students will be able to define and differentiate between mental health and mental illness. The use of common psychotropic drugs and their side effects will also be covered. Current psychiatric practices will be discussed.

PSR 105

- **REHABILITATION AND THE INDIVIDUAL WITH SEVERE MENTAL ILLNESS I**

Credits: 5 (3-12)

Prerequisite(s): PSR 101, PSR 102, PSR 103 and PSR 104

Students will observe and identify common interventions for working with the individual with serious mental illness. Clinical experiences (semester total of 168 hours) will emphasize participation under supervision in group activities, program tasks, client skills training and skills practice. Classroom lectures and seminars will provide students with opportunities to integrate theory with practical experience.

PSR 206

- **REHABILITATION AND THE INDIVIDUAL WITH SEVERE MENTAL ILLNESS II**

Credits: 5 (3-12)

Prerequisite(s): PSR 105

Enables students to continue to develop intervention skills and strategies. Faculty supervised field practice (semester total of 168 hours) provide students with opportunities to develop appropriate clinical judgment, as well as initial participation in service planning and choice of interventions. Students will begin to lead activities under supervision and be introduced to documentation requirements.

PSR 207

- **COMMUNITY RESOURCE MANAGEMENT AND THE INDIVIDUAL WITH SEVERE MENTAL ILLNESS**

Credits: 3 (3-0)

Prerequisite(s): PSR 101

Introduces students to the principles and practices of systems utilization for the improved functioning of people with severe mental illness. Needs evaluation and goal formulation will be the basis of case coordination and resource linking within a systems framework. Classroom lectures and seminars provide students with opportunities to explore the relationship of services to the individual's needs.

PSR 208

- **REHABILITATION AND THE INDIVIDUAL WITH SEVERE MENTAL ILLNESS III**

Credits: 5 (3-12)

Prerequisite(s): PSR 206

Corequisite(s): PSR 209

Builds upon students' previous knowledge obtained in prerequisite courses and enables students to implement effectively the psychosocial rehabilitative role in a faculty supervised clinical practicum (semester total of 168 hours). These experiences are designed to expand the student's skills and clinical judgment as part of a multi-disciplinary team providing service to people with severe mental illness.

PSR 209

- **EMERGING TOPICS IN PSYCHOSOCIAL REHABILITATION AND TREATMENT**

Credits: 3 (3-0)

Corequisite(s): PSR 208

Acquaints students with emerging issues in the field of psychosocial rehabilitation and treatment, focusing on current developments in employment, education and residential services for people with mental illness.

PSR 210

- **CLINICAL PRACTICUM IN PSYCHOSOCIAL REHABILITATION I**

Credits: 6 (3-16)

Prerequisite(s): PSR 101, PSR 102, PSR 103 and PSR 104

This course builds on the knowledge that students obtained in previous PSR courses, including basic information about severe mental illness, program models, communication techniques and group skills. The course enables students to identify and begin to practice common interventions used in psychiatric rehabilitation settings. Classroom lectures, as well as topical and informal discuss ions will provide students with the opportunity to integrate theory with the practical experience gained at their field placements.

PSR 211

- **CLINICAL PRACTICUM IN PSYCHOSOCIAL REHABILITATION II**

Credits: 6

Prerequisite(s): PSR 210

This course builds upon the knowledge obtained in the core PSR course and the prerequisite fieldwork course, and enables students to continue to develop rehabilitative and clinical skills in faculty supervised field placements. In addition, students will begin to participate in the assessment and service planning process, learn how to document clients' progress, and learn how to resolve ethical dilemmas. Weekly seminar classes will assist students in evaluating their field experiences and foster consolidation of learning.

PSYCHOLOGY

PSY 123 GE SS

- **INTRODUCTION TO PSYCHOLOGY**

Credits: 3 (3-0)

Provides a psychological basis for the understanding of human behavior. A survey of fundamentals that are necessary for subsequent psychology courses. Topics include but are not limited to: learning, motivation, cognition, personality, abnormal behavior, development and social psychology.

PSY 151

- **INTRODUCTION TO ADDICTION STUDIES**

Credits: 3 (3-0-15)

Prerequisite(s): PSY 123

This course focuses on the addiction process, familiarizing students with various substances and the impact of addition on the individual, the family and society. Addiction is examined from social, psychological and biological perspectives. Students are required to attend 15 addiction meetings.

PSY 163 GE DIV

- **PSYCHOLOGY OF THE AFRICAN-AMERICAN EXPERIENCE**

Credits: 3 (3-0)

Exploration of Black Psychology – its principles, theories and assessment techniques in relation to the personality and behavioral development of African-Americans.

PSY 217 GE DIV

- **PSYCHOLOGY OF WOMEN**

Credits: 3 (3-0)

The issues raised by female self-awareness. Topics include personality and biological differences between the sexes; the role of women in the family, society and sexual relationships; and the influence of the women's liberation movement.

PSY 219

■ **THEORIES OF PERSONALITY**

Credits: 3 (3-0)

Prerequisite(s): PSY 123

An introduction to and evaluation of modern personality theories. A study of representative theories from different schools, including psychoanalysis.

PSY 222

■ **SOCIAL PSYCHOLOGY**

Credits: 3 (3-0)

Prerequisite(s): PSY 123 or SOC 121

The behavior and development of the individual in society, the functions of social attitudes and the emergence of social awareness. Also, the character of group conflict and group solidarity.

PSY 223 GE SS

■ **CHILD PSYCHOLOGY**

Credits: 3 (3-0)

Prerequisite(s): PSY 123

Human behavior from prenatal development to maturity. The study of physical, intellectual and emotional behavior. Behavior characteristics of different age levels, individual differences and methods of adjustment.

PSY 226

■ **EDUCATIONAL PSYCHOLOGY: CLASSROOM APPLICATIONS**

Credits: 3 (3-0)

Prerequisite(s): PSY 123

Designed to acquaint students with the concepts related to the teaching and learning process. Connections are made between contemporary educational research findings and actual classroom practices. Stress is placed upon activities that motivate learning and their assessment. The course explores various learner exceptionalities and differences (intelligence, socioeconomic status, culture/ethnic gender and at-risk students). Practical instructional procedures, both traditional and innovative, in a variety of subject areas are explored, demonstrate and analyzed. Students are required to complete a 25-hour volunteer assignment working in a teaching/learning setting.

PSY 227 GE DIV

■ **PSYCHOLOGY OF THE HANDICAPPED**

Credits: 3 (3-0)

Examines the psychological development and problems of people with physical challenges and learning disabilities.

PSY 232 GE SS

■ **LIFESPAN DEVELOPMENT**

Credits: 3 (3-0)

Prerequisite(s): PSY 123

This course introduces students to the psychological development of the individual across the life span. Developmental concepts and theories are reviewed and applied in the study of the various stages of life.

PSY 234

■ **PSYCHOLOGY OF DEATH AND DYING**

Credits: 3 (3-0)

The attitudes and feelings toward death and loss. An examination of the facts about death and dying in our society.

PSY 235

■ **ABNORMAL PSYCHOLOGY**

Credits: 3 (3-0)

Prerequisite(s): PSY 123

A multidisciplinary approach to the problems of mental health and illness stressing the role of physical, psychological and sociological forces as causative factors in personality disturbances.

PSY 244

■ **BUSINESS AND INDUSTRIAL PSYCHOLOGY**

Credits: 3 (3-0)

The methods and techniques of psychology are applied to such problems as personnel selection, performance measurement, employee development, job satisfaction and decision making. Organization and leadership are explored within the framework of psychological and social principles.

PSY 251

■ **SUBSTANCE ABUSE: PHARMACOLOGY**

Credits: 3 (3-0)

Prerequisite(s): PSY 151

An introduction to basic effects and neurophysiology of substance use, abuse and dependence. Socio-cultural and psychological perspectives are addressed, with additional emphases on the biomedical, socio-cultural and psychological perspectives.

PSY 252

■ **COMMUNITY AND AGENCY COUNSELING**

Credits: 3 (3-0-15)

Prerequisite(s): PSY 151

This course will familiarize students with the agencies and other resources available within the local community, particularly as they relate to addiction. The role of consultation and effective referral strategies is emphasized. Students are required to attend 15 addiction meetings.

PSY 255 GE SS

■ **ADOLESCENT PSYCHOLOGY**

Credits: 3 (3-0)

Prerequisite(s): PSY 123

An in-depth exploration of the transition period from childhood to adulthood. Biological, social and psychological processes involved in this transition are examined.

PSY 257

■ **COUNSELING THEORIES AND TECHNIQUES**

Credits: 3 (3-0)

Prerequisite(s): PSY 123

Students learn about the various theoretical approaches in counseling psychology. Counseling interventions grounded in theory and research are explored and applied to individuals, groups and families.

PSY 260

■ **PSYCHOLOGY FIELD EXPERIENCE**

Credits: 3 (1-12)

Prerequisite(s): PSY 123 with a grade of "C" or better and written permission of the department chairperson and Counseling and Career Services Office

A cooperative work experience program whereby students are employed in a departmentally approved position in order to gain the practical competency necessary for success in applied psychology. Supervision is provided by the College through on-the-job visits and individual progress review sessions. Students must be approved by the department and are required to describe their learning objectives. Students attend a bi-weekly seminar and work for a total of 180 field experience hours during the semester.

PSY 264

■ **ADDICTION COUNSELING**

Credits: 3 (3-0-50)

Prerequisite(s): PSY 151, PSY 257

This course focuses on counseling interventions intended to assist individuals involved with substances and their families. Ethical and legal aspects of counseling are discussed. The importance of educating clients and being familiar with community resources is emphasized. Students are required to complete 50 hours of fieldwork.

PSY 265

- **ADDICTION STUDIES PRACTICUM**

Credits: 3 (1-0-250)

Prerequisite(s): PSY 264, PSY 257

Students apply skills learned from prior addiction studies coursework through a supervised practicum experience of 250 hours throughout the semester.

PSY 270 GE SS

- **ADULT DEVELOPMENT AND AGING**

Credits: 3 (3-0)

Prerequisite(s): PSY 123

Examines the psychological processes of development from young adulthood through the middle years and later life. Specific attention is paid to psychological adjustments relating to changes in physical health, cognitive functioning, emotional outlook and social interactions of both men and women.

RADIOGRAPHY

(These courses may not be audited)

RAD 128

- **BASIC MEDICAL PRINCIPLES**

Credits: 4 (4-0)

This course introduces the student to the basic principles necessary for clinical practice. Course content includes general concepts in patient care, medical terminology, medical-legal aspects, vital signs, infection control, medication administration, pharmacology, patient communication and ethical considerations.

RAD 139

- **RADIATION PROTECTION AND BIOLOGY**

Credits: 2 (2-0)

Prerequisite(s): RAD 128, RAD 141, RAD 142, RAD 171 and RAD 190
Corequisite(s): RAD 143, RAD 144, RAD 172 and RAD 210

This course provides students with an understanding of and respect for the recommendations relating to the safe use of ionizing radiation. Students are provided with comprehensive coverage of the physical principles and technical aspects of radiation protection and their relationship to radiobiology.

RAD 141

- **RADIOGRAPHIC POSITIONING, ANATOMY AND PATHOLOGY I**

Credits: 2 (2-0)

Corequisite(s): RAD 128, RAD 142, RAD 171 and RAD 190

A presentation of anatomy, positioning and pathology of the upper extremity, shoulder girdle, sternum, sterno clavicular & acromio clavicular joints, thoracic cavity, rib cage, chest, lungs and abdomen.

RAD 142

- **RADIOGRAPHIC POSITIONING LABORATORY I**

Credits: 1 (0-3)

Corequisite(s): RAD 128, RAD 141, RAD 171 and RAD 190

Practical experience and competency evaluation covering positioning of the upper extremity, shoulder girdle, sternum, rib cage, sterno clavicular & acromio clavicular joints, abdomen, thoracic cavity, chest and lungs.

RAD 143

- **RADIOGRAPHIC POSITIONING, ANATOMY AND PATHOLOGY II**

Credits: 2 (2-0)

Prerequisite(s): RAD 128, RAD 141, RAD 142, RAD 171 and RAD 190
Corequisite(s): RAD 139, RAD 144, RAD 172 and RAD 210

A presentation of anatomy, positioning and pathology of the lower extremities, hips, pelvis, sacrum, coccyx, sacroiliac joints and vertebral column including scoliosis studies.

RAD 144

- **RADIOGRAPHIC POSITIONING LABORATORY II**

Credits: 1 (0-3)

Prerequisite(s): RAD 128, RAD 141, RAD 142, RAD 171 and RAD 190
Corequisite(s): RAD 139, RAD 143, RAD 172 and RAD 210

Practical experience and competency evaluation covering positioning of the lower extremities, pelvis and vertebral column.

RAD 145

- **RADIOGRAPHIC POSITIONING, ANATOMY AND PATHOLOGY III**

Credits: 3 (3-0)

Prerequisite(s): RAD 139, RAD 143, RAD 144, RAD 172 and RAD 210
Corequisite(s): RAD 146

A study of the specific anatomy of the digestive, urinary and biliary systems with the appropriate positioning techniques. A discussion of the pharmacological concepts of contrast media and the use in these procedures as well as the theoretical principles of venipuncture are presented. The principles and equipment used for body section radiography are discussed.

RAD 146

- **RADIOGRAPHIC POSITIONING LABORATORY III**

Credits: 1 (0-3)

Prerequisite(s): RAD 139, RAD 143, RAD 144, RAD 172 and RAD 210
Corequisite(s): RAD 145

Radiographic demonstration of the digestive, urinary and biliary system with the appropriate positioning techniques. Practical application of various contrast media is demonstrated. Venipuncture techniques are demonstrated using the phantom injectable arm. Discussion of the principles and equipment used for body section radiography using the energized radiographic laboratory and the phantom patient. Practical competency must be demonstrated.

RAD 171

- **RADIOGRAPHIC IMAGING AND SCIENCE I**

Credits: 4 (4-0)

Corequisite(s): RAD 128. RAD 141, RAD 142 and RAD 190

This first part of a three-part course is designed to introduce the student to the basic concepts and practices in radiation protection, equipment operation and maintenance as well as image production and evaluation. Content includes X-ray production, the X-ray tube, filtration, prime factors, interactions of X-ray with matter, beam restriction, grids, radiographic film, processing and intensifying screens. In addition, an introduction to radiation protection for the patient and radiographer is presented in order to prepare the student for clinical practice.

RAD 172

- **RADIOGRAPHIC IMAGING AND SCIENCE I**

Credits: 2 (2-0)

Prerequisite(s): RAD 128, RAD 141, RAD 142, RAD 171 and RAD 190
Corequisite(s): RAD 139, RAD 143, RAD 144 and RAD 210

A continuation of Radiographic Imaging and Science I designed to build upon previous objectives and introduce additional concepts and practices in equipment operation and maintenance as well as image production and evaluation. Film/screen combinations, sensitometry, exposure systems, automatic exposure control devices, mobile radiography and fluoroscopy are discussed and analyzed. Students learn to analyze the radiograph image with focus upon the interaction of various radiographic factors such as density, contrast, detail and distortion.

RAD 190

- **CLINICAL ORIENTATION**

Credits: 1 (0-8)

Corequisite(s): RAD 128, RAD 141, RAD 142 and RAD 171

A hands-on clinical experience, introducing the student to the clinical setting. The student will demonstrate basic medical skills by assisting the staff technologists during radiographic examinations.

RAD 210

- **CLINICAL PRACTICUM I**

Credits: 2 (0-16)

Prerequisite(s): RAD 128, RAD 141, RAD 142, RAD 171 and RAD 190

Corequisite(s): RAD 139, RAD 143, RAD 144, RAD 172

An introduction to the functioning of a radiology department. Under direct supervision, students assist with, and perform radiographic examinations of the appendicular skeleton, bony thorax, lungs and abdomen on patients at an assigned clinical agency. Stresses competency in performance and in the development of a professional work ethic. Weekly discussions, assignments and reviews are given. Practical competencies must be demonstrated in specific radiographic examinations.

RAD 220

- **CLINICAL PRACTICUM II**

Credits: 2 (0-16)

Prerequisite(s): RAD 145 and RAD 146

Provides experiences toward mastery of competency in examinations of the digestive, biliary and urinary systems at an assigned clinical agency. Continued development of the student's professional work ethic and practical competency will be demonstrated on examinations of the appendicular skeleton, bony thorax, lungs and abdomen. Weekly discussions, assignments and reviews are given.

RAD 230

- **CLINICAL PRACTICUM III**

Credits: 2 (0-16)

Prerequisite(s): RAD 220

Corequisite(s): RAD 247, RAD 248 and RAD 273

Provides experiences toward mastery of competencies in the skull and sinuses. Continued practical competency will be demonstrated in examinations of the appendicular skeleton, thorax, lungs, abdomen, digestive system, biliary system and urinary system. Continued development of the student's professional work ethic is required. Weekly discussions, assignments and reviews are given.

RAD 247

- **RADIOGRAPHIC POSITIONING, ANATOMY AND PATHOLOGY IV**

Credits: 2 (2-0)

Prerequisite(s): RAD 145, RAD 146 and RAD 220

Corequisite(s): RAD 230, RAD 248 and RAD 273

A presentation of anatomy, positioning and pathology of the cranium, sella turcica, facial bones (nasal bones, zygomatic arch, mandible and temporomandibular joints), paranasal and mastoid sinuses, orbits, optic foramina and mammary gland.

RAD 248

- **RADIOGRAPHIC POSITIONING LABORATORY IV**

Credits: 1 (0-2)

Prerequisite(s): RAD 145, RAD 146 and RAD 220

Corequisite(s): RAD 230, RAD 247 and RAD 273

Practical experience and competency evaluation covering positioning of the cranium, sella turcica , facial bones (nasal bones, zygomatic arch, mandible and temporomandibular joints), paranasal and mastoid sinuses, orbits, optic foramina and mammography.

RAD 250

- **CLINICAL PRACTICUM IV**

Credits: 3 (0-24)

Prerequisite(s): RAD 230, RAD 247, RAD 248 and RAD 273

Corequisite(s): RAD 256 and RAD 285

Emphasizes competency relating to examinations of the skull and sinuses and in the area of special radiographic procedures. Continued practical competencies will be demonstrated in the areas of the appendicular skeleton, thorax, lungs, abdomen, digestive system, biliary system and urinary system. The student must demonstrate competency in 25 designated examinations. Continued development of the student's professional work ethic is required.

RAD 256

- **RADIOGRAPHIC SEMINAR I**

Credits: 2 (1-2)

Prerequisite(s): RAD 230, RAD 247, RAD 248 and RAD 273

Corequisite(s): RAD 250 and RAD 285

Review of the five major areas of radiography required for the National Board examination, utilizing testing, computerized review and problem solving. Simulated board examinations are administered throughout the course. A grade of 75% on the final simulated board exam is required to pass the course.

RAD 257

- **RADIOGRAPHIC SEMINAR II**

Credits: 2 (1-2)

Prerequisite(s): RAD 256 and RAD 260

Continued review of the five major areas of radiography required for the National Board examination, utilizing testing, computerized review and problem solving. Simulated board examinations are administered throughout the course. A grade of 80% on the final simulated board exam is required to pass the course.

RAD 260

- **CLINICAL PRACTICUM V**

Credits: 3 (0-24)

Prerequisite(s): RAD 250, RAD 256 and RAD 285

A completion of the competency requirements as specified by the Radiologic Technology Board of X-ray Examiners and the Joint Review Committee on Education in Radiologic Technology. Emphasizes the assessment of performance competency and the student's mastery of the clinical objectives. Seven terminal competencies are to be completed prior to completion of the course.

RAD 275

- **RADIOGRAPHIC PHYSICS AND EQUIPMENT MAINTENANCE**

Credits: 3 (2-1)

Radiographic Physics and Equipment Maintenance is designed to build upon previous objectives in Radiographic Imaging and Science I & II and introduce additional concepts and practices in the physics of equipment operation and maintenance as well as image production and evaluation. Topics include basic physical principles, physics of radiographic equipment, advanced circuit theory, radiographic quality control, bone densitometry, digital x-ray imaging and physics of mammography.

RAD 285

- **ADVANCED RADIOGRAPHIC IMAGING**

Credits: 2 (2-0)

Prerequisite(s): RAD 230, RAD 247, RAD 248 and RAD 273
Corequisite(s): RAD 250 and RAD 256

A presentation of advanced imaging concepts and specialized equipment. A comprehensive discussion of special procedure examinations, radiographic anatomy, cross-sectional anatomy and imaging techniques as applied to central nervous system radiography, digital subtraction angiography, interventional procedures, computer tomography, magnetic resonance imaging and advanced contrast media studies.

READING

RDG 009

- **READING SKILLS FOR COLLEGE I**

Credit equivalent(s): 4 (3-1)

Provides intensive instruction to help students develop basic reading comprehension, vocabulary, communication and study skills. "C" is the minimum acceptable grade for movement from one remedial/developmental level to another and for completion of remediation/developmental requirements to include all credit equivalent courses.

RDG 011

- **READING SKILLS FOR COLLEGE II**

Credit equivalent(s): 3 (3-0)

Prerequisite(s): Appropriate score on the college placement test or a grade of "C" or better in RDG 009

Designed to help students improve their comprehension and speed, to develop a college-level vocabulary and to learn academic study skills. Mastery of the behavioral objectives will enable students to comprehend collegiate texts. *"C" is the minimum acceptable grade for movement from one remedial/developmental level to another and for completion of remediation/developmental requirements to include all credit equivalent courses.*

RDG 090

- **READING 011 BRIDGE**

Credit equivalent(s): 1 (2-0)

Prerequisite(s): Reading score on ACCUPLACER of 80, 81, 82 or 83

This two-week course provides an opportunity for those students who do not pass the Accuplacer Reading Comprehension to refresh their skills before attempting to retake the test.

RESPIRATORY CARE

RST 100

- **CORE CONCEPTS IN RESPIRATORY CARE**

Credits: 1 (0-3)

Prerequisite(s): Acceptance into Respiratory Care Program and BIO 111
Corequisite(s): RST 100 and RST 102

Provides foundation theory and laboratory practice in methods of infection control, bedside patient assessment and cardio-pulmonary resuscitation. Also covered are key aspects of health care delivery, including manual and computerized medical recordkeeping and protocol-based respiratory care.

RST 101

- **FUNDAMENTALS OF RESPIRATORY CARE**

Credits: 4 (3-7)

Prerequisite(s): Acceptance into Respiratory Care Program
Corequisite(s): RST 100 and RST 102

An introduction to basic therapeutic modalities employed in contemporary respiratory care, including medical gas therapy, humidity and aerosol therapy, airway pharmacology, chest physical therapy and lung expansion therapy (Lecture Hours: 45; laboratory hours: 45).

RST 102

- **CLINICAL PRACTICE I**

Credits: 1 (0-7)

Prerequisite(s): Acceptance into Respiratory Care Program
Corequisite(s): RST 100 and RST 101

An orientation to the hospital environment and to the basic respiratory care procedures covered in Fundamentals of Respiratory Care. Clinical instruction and supervised practice are provided in the areas of medical charting, infection control, basic patient assessment and basic therapeutics (Clinical hours: 90).

RST 103

- **APPLIED CARDIOPULMONARY PATHOPHYSIOLOGY I**

Credits: 2 (2-2)

A study of the anatomy and physiology of the cardiopulmonary system as it relates to respiratory care. Includes basic anatomy of the pulmonary and cardiac systems; physiology of circulation; ventilation; gas exchange and transport, acid-base balance and the control of respiration; and an overview of the pathophysiology and treatment of common disorders of the cardiopulmonary system (Lecture hours: 30).

RST 201

- **PATIENT MANAGEMENT – CRITICAL CARE**

Credits: 3 (2-6)

Prerequisite(s): RST 208 and RST 211
Corequisite(s): RST 202

An in-depth study of the clinical management of the cardio-pulmonary patient in the critical care setting, emphasizing specialized respiratory assessment, advanced ventilatory management, basic interpretation of the chest film, hemodynamic monitoring, ECG interpretation and the effects of cardio-pulmonary disorders on other major body systems (Lecture hours: 30; laboratory hours: 45).

RST 203

- **APPLIED CARDIOPULMONARY PATHOPHYSIOLOGY II**

Credits: 2 (2-0)

Prerequisite(s): RST 103

A study of the pathophysiology of disorders of ventilation, perfusion and oxygenation which results in cardiopulmonary failure, with an emphasis on diagnosis and treatment in the clinical setting (Lecture hours: 30).

RST 207

- **CARDIOPULMONARY PHARMACOLOGY**

Credits: 1 (1-1)

Prerequisite(s): RST 103

An overview of systemic drugs affecting the cardiopulmonary system, including steroids, antibiotics, skeletal muscle relaxants, central nervous system, depressants, respiratory stimulants, diuretics and cardiovascular agents (Lecture hours: 15).

RST 208

- **PRINCIPLES OF VENTILATORY SUPPORT**

Credits: 4 (3-7)

Prerequisite(s): RST 101
Corequisite(s): RST 209

An introduction to the physiologic principles and techniques of artificial ventilatory support, including airway management, indications for and application of mechanical ventilation, functional operation of mechanical ventilators and basic monitoring and management of the patient in respiratory failure (Lecture hours: 30: laboratory hours: 45).

RST 209

- **CLINICAL PRACTICE II**

Credits: 2 (0-12)

Prerequisite(s): RST 101 and RST 102

Corequisite(s): RST 208

Further practice and mastery of basic respiratory care procedures introduced in Clinical Practice I. Also introduced are airway management skills and principles of intensive respiratory care, including patient assessment and basic ventilator monitoring (Clinical hours: 180).

RST 210

- **CARDIOPULMONARY EVALUATION**

Credits: 2 (2-2)

Prerequisite(s): RST 103

Invasive and non-invasive diagnostic and monitoring procedures including roentgenography, electrocardiography, pulmonary function testing, hemodynamic monitoring, arterial blood gas analysis, patient interviewing and physical assessment.

RST 211

- **PEDIATRIC/NEONATAL RESPIRATORY CARE**

Credits: 3 (2-3)

Prerequisite(s): RST 208 and RST 209

Corequisite(s): RST 215

This course provides an in-depth analysis of pediatric and neonatal disorders. In addition, the course covers an array of diagnostic therapeutic modalities specific to younger respiratory patients, including newer diagnostic methods, such as genetic mapping and enhanced imaging techniques. Furthermore, recently introduced treatment techniques, such as extracorporeal membrane oxgenation (ECMO), liquid ventilation and newer medications, are also addressed.

RST 212

- **LONG TERM, HOME AND REHABILITATIVE CARE**

Credits: 3 (3-0)

Prerequisite(s): RST 203, RST 207 and RST 210

This course covers an analysis of the goals and methods of respiratory care in non-acute settings. Included are standards and regulations governing non-acute respiratory care, team planning, patient selection, program design and provision and documentation of various clinical services in the home and in long-term care and rehabilitation facilities. Quality, cost, reimbursement and ethical issues are also covered.

RST 215

- **CLINICAL PRACTICE II**

Credits: 3 (0-12)

Prerequisite(s): RST 208 and RST 209

Corequisite(s): RST 107

Supervised experience in critical care, with an emphasis on developing the skills necessary to function independently in a critical care setting. Observational experience in pulmonary function testing and pediatric-neonatal respiratory care is also provided (Clinical hours: 180).

SCIENCE

SCI 103

- **SAFETY AND FDA REGULATIONS FOR LAB TECHNICIANS**

Credits: 1 (2-0)

Designed to introduce students to working in a regulated laboratory environment. Occupational Safety and Health Administration (OSHA), Environmental Protection Agency (EPA), Department of Transportation (DOT and Food and Drug Administration (FDA) regulations are presented and emphasis is on understanding the intent and practical application of these regulations.

SCI 104

- **TECHNICAL COMMUNICATION**

Credits: 1 (0-2)

Students will learn effective communication skills needed in a technical workplace by completing written assignments, giving oral presentations and developing team building skills.

SCI 108

- **NATURAL HISTORY OF NEW JERSEY**

Credits: 3 (2-2)

Emphasis is on exposing students to the diversity of natural habitats found within New Jersey. Bogs, freshwater marshes, salt marshes, swamps, hardwood forests, the Pine Barrens and seashore environments are explored on field trips. Students observe and study species of animals and plants which are characteristic of each ecosystem type and develop an awareness of the impact of human activities on the natural environment. *Recommended for non-science majors.*

SCI 155 GE MST

- **INTRODUCTION TO GEOLOGY**

Credits: 4 (3-2)

Prerequisite(s): MAT 013 or appropriate score on the college placement test

A one-semester course dealing predominately with geology and with the physical aspects of the ocean. Topics include a discussion and identification of rocks and minerals, volcanism, the geologic time scale, earthquakes and their origin. Introduces important topics in physical oceanography and the geology of New Jersey and environs. Students are required to go on an all day field trip. Provides appropriate laboratory exercises.

SCI 156 GE MST

- **INTRODUCTION TO ASTRONOMY**

Credits: 4 (3-2)

Prerequisite(s): One year of high school laboratory science, MAT 014 or appropriate score on the college placement test

An introduction to descriptive space science covering the historical development of astronomy and planetology. Basic physical laws are introduced to help explain the tools used in the investigation of the solar system and the galaxy. Topics include stellar and solar systems, evolution and cosmology. The possibility of extraterrestrial life and communication with it is included as a necessary part of the subject. Laboratory experience included.

SCI 157 GE MST

- **INTRODUCTION TO METEOROLOGY**

Credits: 4 (3-2)

Prerequisite(s): MAT 013 or appropriate score on the college placement test

An introduction to meteorology, providing an overview of the atmosphere, temperature, measurements and energy balance, as it pertains to air masses, clouds, precipitation, wind, storms and fronts. A series of physical principles will be used to illustrate the dynamics of the atmosphere, including force, density, methods of heat transfer and radiation. Weather predictions and forecasting instrumentation are integral parts of the course, including Internet sources and weather satellite transmissions.

SCI 158 GE MST

- **PLANETARY ASTRONOMY**

Credits: 4 (3-2)

Prerequisite(s): One year of high school laboratory science, MAT 014 or appropriate score on the college placement test

To provide an overview or introduction to descriptive space science covering the historical development of astronomy and planetology. Basic physical laws are introduced to help explain the tools used in the investigation of solar systems. Appropriate laboratory experience is provided.

SCI 204 GE MST

- **CONCEPTS OF PHYSICAL SCIENCE**

Credits: 3 (2-2)

A general introduction to physical science through an investigation of natural laws. Topics to be covered include Newton's laws of motion, the law of universal gravitation, gas laws, methods of heat transfer, and electricity and magnetism. Chemistry concepts and natural laws pertaining to astronomy, geology and meteorology will also be covered.

SCI 206 GE MST

- **INTRODUCTION TO FORENSIC SCIENCE**

Credits: 3 (2-2)

Prerequisite(s): MAT 013, MAT 013B or appropriate score on the college placement test

This course is an introductory course in which scientific principles will be applied to the methods used to investigate and solve crimes. The course will focus on the principles and methods utilized in the traditional sciences of biology, chemistry and physics. The scientific techniques used to collect and analyze evidence will be covered.

SCI 207

- **PRINCIPLES OF FIRE PROTECTION CHEMISTRY AND PHYSICS**

Credits: 4 (3-2)

Prerequisite(s): One year of high school chemistry or CHM 010

This course represents an elementary review of selected fundamentals of chemistry and physics that are most relevant to fire. The course will cover the fire characteristics of materials, the properties of combustion products, fire extinguishing agents and procedures and movement of smoke.

SCI 210

- **ENVIRONMENTAL GEOLOGY**

Credits: 4 (3-2)

This course introduces students to environmental geology. The focus is on the relationship between human society and the earth's five systems: water, ice, air, the solid earth and life. The course provides an understanding of the geologic mechanism and prediction of such natural hazards as earthquakes, volcanism, coastal and riverine floods, landslides, desertification, glaciation and global warming. The course discusses complex problems that arise from the human impact on the geological processes and how that can lead to tragic consequences. The stress of overpopulation, energy resource limitations, groundwater contamination, alternative energy sources, as well as the basic concepts of environmental geology management will be covered. The laboratory component includes an introduction to geologic methods of identification, groundwater contamination, exercises on water table problems (construction of water table profiles), exercises on geological and tectonic maps to study the most active (tectonically and volcanically) world regions and the study of rocks and minerals as mineral resources.

SCI 215

- **CURRENT GOOD MANUFACTURING PRACTICE AND QUALITY CONTROL FOR BIOTECHNOLOGY**

Credits: 1 (0-2)

Students will learn FDA regulations specific to the biotechnology industry. Topics will include the historical perspectives of the regulations, quality control concepts, case studies and example of FDA enforcement.

SCI 216

- **CURRENT ISSUES AND OPPORTUNITIES IN LAB TECHNOLOGY**

Credits: 1 (0-2)

Students will explore recent advances in technology which affect job opportunities. An overview of the lab technology field is given through site visits and guest speakers. Students will gain insights on how to write a resume and search and interview for a job.

SCI 220 GE MST

- **FORENSIC SCIENCE**

Credits: 4 (3-2)

Prerequisite(s): MAT 013 or appropriate score on the college placement test and one year of high school laboratory science. Students should not register for both SCI 206 and SCI 220.

An overview of the fundamental principles of the physical and biological sciences as they relate to the field of forensic science. This course focuses on the role of the forensic scientist in criminal investigations. Scientific principles of crime scene investigation, including the chemistry of blood, physics of blood splatter, DNA and firearms identification will be covered. Laboratory analysis will include microscopy, atomic absorption and chromatography.

SCI 256 GE SCI

- **STELLAR AND GALACTIC ASTRONOMY**

Credits: 4 (3-2)

Prerequisite(s): One year of high school laboratory science, MAT 014 or appropriate score on the college placement test

To provide an overview or introduction to descriptive space science covering stars, stellar evolutions and galaxies. Basic physical laws are introduced to help explain the tools used in the investigation the galaxies. The possibility of extraterrestrial intelligence is included as a necessary part of the subject. Appropriate laboratory experience is provided.

SCI 258

- **CLIMATOLOGY**

Credits: 3 (4-0)

Prerequisite(s): MAT 014 or appropriate score on the college placement test

This course provides an introduction to the study of climate. Processes that have an effect on the earth's climate are considered along with solar radiation. The interactions between the atmosphere and hydrosphere as determinants of climate are considered. Climate and feedback processes are included.

SMALL BUSINESS MANAGEMENT

SBM 110

- **ACCOUNTING FOR SMALL BUSINESS**

Credits: 4 (4-0)

Focuses on accounting as applied in the small business setting. Emphasizes small business record keeping from basic journalizing to year-end closing and financial statement preparation. Use of computerized general ledger and other software will be employed to accomplish the above mentioned tasks. Also covers managerial issues and demonstrates use of basic analytical tools for problem solving at the small business level.

SBM 120

- **SMALL BUSINESS MANAGEMENT**

Credits: 3 (3-0)

Introduces the student to the principles of small business management and the functions of planning, organizing, directing, controlling, financing and staffing a small business enterprise.

SBM 130

- **MARKETING AND SALES FOR SMALL BUSINESS**

Credits: 3 (3-0)

For the small business owners/entrepreneurs looking to improve their marketing skills in today's domestic, global and international business environments. Through a case study format with additional emphasis on other relevant functional areas of business, the student will come to fully understand all activities and processes involved in the flow of goods, services, ideas and events from producer and/or manufacturer to consumers. Through this type of analysis, the small business owner/entrepreneur will be able to incorporate a systems approach, to fully understand the marketing and sales conditions being affected and to analyze the problems as well as the strategies used in solving these problems.

SBM 210

- **ADVERTISING AND PROMOTION FOR SMALL BUSINESS**

Credits: 3 (3-0)

Techniques of advertising and sales promotion to increase sales. Topics include: policies and procedures used in planning and preparing advertisements, evaluation and selection of media, planning and coordinating advertising, sales promotion and facility layout for small business.

SBM 220

- **LEADERSHIP AND SUPERVISION**

Credits: 3 (3-0)

Learn about leadership and supervision in modern organizations. Introduces a variety of behavioral and managerial leadership theories and research findings. Case studies, experimental exercises and the media are used to stimulate classroom discussion.

SBM 230

- **RISK AND FINANCIAL MANAGEMENT**

Credits: 3 (3-0)

Introduces the fundamental principles of risk and financial management. Content focuses on insurance, consumer and trade credit, budgeting, banking, investing, loans and other financial considerations facing owners of small business.

SBM 240

- **COOPERATIVE EDUCATION/INTERNSHIP IN SMALL BUSINESS**

Credits: 3 (1-12)

Prerequisite(s): Student must have completed half the courses in the Small Business Management curriculum or written permission of the department chairperson and Counseling and Career Services Office

Integration of classroom study with specific planned periods of learning through work experience. Co-op or internship based. The course utilizes a seminar approach with performance-based human relations activities and individual student objectives that are job related and employer evaluated.

SBM 250

- **SEMINAR IN ENTREPRENEURIAL STUDIES**

Credits: 3 (3-0)

Prerequisite(s): BUS 101, SBM 110, SBM 120, SBM 130 and SBM 210 or written permission of the department chairperson

Corequisite(s): SBM 230

Enhances the working knowledge required to manage a small business, considering both domestic and global implications. Learn the differences between business ownership and entrepreneurship. Emphasizes the real world financing of entrepreneurship, mergers and acquisitions as they apply to current business practices. Students will go beyond the rudiments of "discovering a good business concept" to analyzing and developing a comprehensive plan to test the profitability potential of the venture. Using the business plan approach, students will conduct the research and investigation required to determine the viability of starting, buying or selling an existing business. Case studies will include in-depth financial analyses of successful businesses.

SOCIOLOGY

SOC 121 GE SS GE DIV

- **INTRODUCTION TO SOCIOLOGY**

Credits: 3 (3-0)

This course examines human relationships in society, analyzes concepts of culture, socialization, values, norms, deviance, stratification and causes and effects of inequalities.

SOC 122 GE SS

- **SOCIAL INSTITUTIONS**

Credits: 3 (3-0)

Prerequisite(s): SOC 121

This course provides an intensive examination of the basic social institutions in America, such as religion, economy, family, law, health, government, military science and education, as well as collective behaviors, social movements and social change.

SOC 123 GE SS GE DIV

- **INTRODUCTION TO ANTHROPOLOGY**

Credits: 3 (3-0)

This course combines physical and cultural anthropology by exploring the relationship between physical evolution and the corresponding development of human cultural life. A study of cultures and customs around the world. These customs includes language, magic, religion, marriage, sex roles, political structure and subsistence pattern such as hunting and gathering.

SOC 131

- **CONTEMPORARY SOCIAL PROBLEMS**

Credits: 3 (3-0)

This course examines some major current social problems of American society: family problems, physical and mental emotional illness and disability, crime and delinquency, drug abuse, poverty, racial, sexual and age discrimination. Analyzes causes, effects, policies and remedies.

SOC 140

- **INTRODUCTION TO CRIMINOLOGY**

Credits: 3 (3-0)

The nature and sources of criminal law, incidences and trends of criminology, relationship of culture and social systems to criminology, biological, psychological and sociological theories of criminology.

SOC 141

- **INTRODUCTION TO SOCIAL WORK AND SOCIAL WELFARE POLICY**

Credits: 3 (3-0)

Introduces the evolution of the policies and practices of social welfare and social work. Historical developments, current provisions, social, attitudinal, economic and political trends in the United States affecting institutionalized responses to perceived health and welfare needs are analyzed.

SOC 205 GE DIV

- **DIVERSITY AND MULTICULTURALISM IN U.S. SOCIETY**

Credits: 3 (3-0)

Introduces students to both the historical and the contemporary experiences, diverse cultural values, lifestyles and contributions of a cross-section of racial and ethnic groups and other minority groups such as women and the elderly.

SOC 210

- **METHODS OF CASEWORK AND COUNSELING**

Credits: 3 (3-0)

An introductory study of social work methods: interviewing, diagnostic assessment, casework, counseling, problem solving, service coordination, placement and others used in social service agencies, institutions, programs and organizations.

SOC 222

- **POLITICAL SOCIOLOGY**

Credits: 3 (3-0)

Analyzes the social conditions that affect government, politics and law. Some topics discussed: democracy in theory and in practice, political socialization and the nature of mass movements.

SOC 223

- **POWER, PRIVILEGE AND CLASS**

Credits: 3 (3-0)

This course describes and explains the social, cultural and historical processes that give rise to the differential distributions of power, privilege and wealth in the United States and to the emerging framework of the global community. The social, political lifestyle consequences of those distributions are explored.

SOC 224

- **MARRIAGE AND THE FAMILY**

Credits: 3 (3-0)

Analyzes the nature and role of the family by focusing on the institution of marriage and such related matters as separation, divorce and the rearing of children.

SOC 225

- **JUVENILE DELINQUENCY**

Credits: 3 (3-0)

Examines the nature and extent of juvenile crime, juvenile delinquency as a social and cultural problem, social and cultural factors in the explanation of delinquent behavior, types of offenders, theories of delinquency and treatment and prevention of delinquency.

SOC 231 GE DIV

- **INDIANS OF THE AMERICAS**

Credits: 3 (3-0)

A comparative analysis of native Indian cultures of the Americas. Native American traditions are explored from an archeological and anthropological perspective. Topics discussed are origin of the Indians, culture areas and subsistence patterns, health, medicine and religion, social systems, architecture, art and music; initial contact with Europeans, Africans and Asians and Native American relations with the larger society.

SOC 234

- **SOCIOLOGY OF WORK AND ORGANIZATIONS**

Credits: 3 (3-0)

Provides students with the opportunity to examine the relationships between individuals and the economic sector of society, with emphasis upon the world of work. Special focus will be given to the sociology of industry, especially the topics of power, theories of human motivation and management, multinational corporations, social stratification, employment, organizations and bureaucracies and the possibilities of alternative workplace situations.

SOC 240 GE DIV

- **PERSPECTIVES ON SEXUAL IDENTITY**

Credits: 3 (3-0)

Prerequisite(s): PSY 123 or SOC 121 or SOC 123 or permission of department chair

Examines the processes involved in the formation of sexual identity from an anthropological perspective, including contemporary, historical and cross-cultural viewpoints. Discusses the evolution of sex roles in species. Covers the influence of culture in sex role behaviors and gender identification in a variety of cultures around the world.

SPANISH

SPA 121 GE HUM

- **ELEMENTARY SPANISH I**

Credits: 3 (3-0)

Use of integrated materials enables students to acquire and employ the fundamentals of reading, writing and speaking the language. Laboratory work is required. For students with little or no background in Spanish.

SPA 122 GE HUM

- **ELEMENTARY SPANISH II**

Credits: 3 (3-0)

Prerequisite(s): SPA 121 or equivalent

A continuation of SPA 121.

SPA 124

- **CONVERSATIONAL SPANISH**

Credits: 3 (3-0)

Fundamentals of speaking are introduced to provide students with basic conversational skills of the language. Laboratory work is required. This course does not satisfy the foreign language requirement for the Associate in Arts Degree.

SPA 210 GE HUM

- **SPANISH FOR HISPANICS**

Credits: 3 (3-0)

Designed to improve language skills in speakers of Spanish as the home language. Emphasis is placed on grammar needed to reach command of reading and writing skills. The course highlights some differences between English and Spanish language usage. Class work is entirely in Spanish.

SPA 221 GE HUM

- **INTERMEDIATE SPANISH I**

Credits: 3 (3-0)

Prerequisite(s): SPA 122 or equivalent (two years of high school Spanish)

General review of grammar and basic fundamentals. Conversation is stressed and works from typical Spanish authors are read along with excerpts dealing with Hispanic civilization.

SPA 222 GE HUM

- **INTERMEDIATE SPANISH II**

Credits: 3 (3-0)

Prerequisite(s): SPA 221 or equivalent

A continuation of SPA 221. General review of grammar and basic fundamentals. Conversation is stressed and works from typical Spanish authors are read along with excerpts dealing with Hispanic civilization.

SPA 223 GE HUM GE DIV

- **MAIN CURRENTS IN HISPANIC LITERATURE**

Credits: 3 (3-0)

Prerequisite(s): SPA 210 or SPA 222 or written permission of the department chairperson

Introduction to the fundamental concepts of the study of literature in Spanish; an intensive study of representative authors and masterpieces of Hispanic literature from the 11th century to the onset of the Modernist period. Readings and discussions in Spanish.

SPA 224 GE HUM GE DIV

- **CONTEMPORARY HISPANIC LITERATURE**

Credits: 3 (3-0)

Prerequisite(s): SPA 210 or SPA 221 or SPA 222 or SPA 226 or SPA 228 or written permission of the department chairperson

Class work includes reading, analysis and discussion of major Spanish and Latin American writers from the Generation of '98 and the Modernist Period to the present. Readings and discussions mainly in Spanish.

SPA 226 GE HUM GE DIV

- **HISPANIC CIVILIZATION (IBERO-AMERICAN)**

Credits: 3 (3-0)

Prerequisite(s): SPA 210 or SPA 221 or SPA 222 or SPA 226 or SPA 228 or written permission of the department chairperson

Reading, analysis and discussion of Hispanic-American civilization and culture from pre-Columbian times to the present. Spanish readings are discussed mainly in Spanish.

SPA 228 GE HUM GE DIV

- **SPANISH CIVILIZATION AND CULTURE (IBERIAN)**

Credits: 3 (3-0)

Prerequisite(s): SPA 210 or SPA 221 or SPA 222 or SPA 224 or SPA 226 or written permission of the department chairperson

Political, economic, social and cultural development of Spain from prehistoric times to the present. Readings and discussions mainly in Spanish.

SPA 231 GE HUM

- **SPANISH CIVILIZATION AND COMPOSITION I**

Credits: 3 (3-0)

Prerequisite(s): SPA 222 or equivalent (three or more years of high school Spanish)

An intensive study of advanced Spanish grammar specializing in analysis of grammatical and syntactical structures of modern Spanish. Selections from contemporary Spanish and Latin American authors are analyzed according to new linguistic methods. Emphasis is also given to special problems of English-speaking students. Course is conducted mainly in Spanish. An in-depth analysis of the cultural values exemplified in the readings.

SPA 232 GE HUM

- **SPANISH CIVILIZATION AND COMPOSITION II**

Credits: 3 (3-0)

Prerequisite(s): SPA 231

A continuation of SPA 231.

SPA 242 GE DIV

- **MASTERPIECES OF HISPANIC LITERATURE IN TRANSLATION (20TH CENTURY)**

Credits: 3 (3-0)

Prerequisite(s): ENG 122 or ENG 125

Focuses on translated works of contemporary Hispanic Literature written in Spain, Latin America and the Caribbean. Introduces students to the reading and interpretation of outstanding Hispanic writers from the Generation of '98 in Spain and from Modernism in Spanish America to the present. Pursues various genres within prose, drama and poetry. Major literary trends will be studied: modernism, "criollismo," fantastic realism, magical realism, existentialism, neorealism, post-modernism and feminist literature, among others. (Taught in English). This course does not fulfill the foreign language requirement.

SPEECH

SPE 121 GE COM

- **FUNDAMENTALS OF PUBLIC SPEAKING**

Credits: 3 (3-0)

Introduction to the theory and practice of public address; the study of representative public addresses and the preparation and delivery of short speeches.

SPE 123 GE COM

- **DISCUSSION AND DEBATE**

Credits: 3 (3-0)

The development of clear, logical and effective speech communication is the goal of this basic discussion and debate course. The focus will be on reasoned decision making with the context of a free society. Topics will draw upon social values, personal responsibility and/or ethical behavior. Speech presentations will include large group discussions, panel discussions and debates that emphasize the ability to work in a team environment.

SPE 124

- **ORAL INTERPRETATION**

Credits: 3 (3-0)

The theory and practice of effective oral reading. Materials include selections in poetry, prose and drama. The appreciation of literary forms through individual oral performance and choral readings. Development of effective voice and articulation.

STUDENT ENRICHMENT

SSD 101

- **STUDENT SUCCESS**

Credits: 3 (3-0)

Students learn and adopt methods for success in college and lifelong learning. Orientation to college, study skills, critical thinking skills and learning styles are emphasized. An educational and career plan is developed.

THEATRE

THE 105 GE HUM

- **INTRODUCTION TO THEATRE**

Credits: 3 (3-0)

An investigation of the on-stage and backstage elements of contemporary theatre, film and television. Emphasis on the collaboration of performers, writers, directors, designers and technicians and the role of the audience. Attendance at professional and college productions is required.

THE 123 GE HUM

- **THEATRE HISTORY**

Credits: 3 (3-0)

A study of theatre as an art form with an emphasis on production practices in the Golden Ages of theatre: Greek, Roman, Medieval, Renaissance and Restoration. Representative plays, theatres, acting, staging and design styles explored. Required of theatre majors, open to all students. Attendance at performances required.

THE 124 GE HUM

- **CONTEMPORARY THEATRE**

Credits: 3 (3-0)

A study of the development of twentieth century theatre art from Realism to New Theatre eclectic styles. The background and evolution of Realism, Expressionism, Theatre of the Absurd and current theatre movements explored. Required of theatre majors, open to all students. Attendance at performances required.

THE 131

- **ACTING I**

Credits: 3 (3-0)

Basic techniques of theatrical communication. Pantomime and improvisational exercises for perception and self-awareness. Use of the voice and body to interpret emotion and project characterization. Practical application through learning to approach the performing of scenes. Attendance at performances required.

THE 132

- **ACTING II**

Credits: 3 (3-0)

Prerequisite(s): THE 131

Further development of the basic techniques of theatrical communication. Learning to externalize through stage movement. Scene study to utilize clues in the script to fulfill the author's or director's intent. Study of the director-actor-audience relationship. Practical application through rehearsal and performance of one-act plays. Attendance at performances required.

THE 145

- **STAGECRAFT**

Credits: 3 (2-2)

A theatre course in the basic physical elements of theatre stagecraft with particular emphasis on set construction. Practical application of theoretical knowledge in the theatre shop and college productions. Required of Theatre majors. Attendance at professional and college productions is required.

THE 146

- **PLAY PRODUCTION**

Credits: 3 (2-2)

A theatre course in the elements of play production including design concepts, two dimensional working drawings and scale model building and lighting techniques. Practical application of theoretical knowledge in the theatre shop and college productions. Required of Theatre majors. Attendance at professional and college productions is required.

THE 152

- **AMERICAN MUSICAL THEATRE**

Credits: 3 (3-0)

All aspects of America's most popular art form. Includes many trips to see musicals on stage and backstage as well as lectures and classroom discussions of the American musical theatre. A laboratory fee covers the cost of tickets.

THE 208

- **THEATRE FIELD EXPERIENCE**

Credits: 3 (1-12)

Prerequisite(s): THE 145 or written permission of the department chairperson and Counseling and Career Services Office

A cooperative work experience program whereby students are employed in a performing arts position in order to gain some of the practical experience necessary for success in various aspects of theatre: artistic, technical and/or administrative. Supervision of this departmentally approved position is provided by the College through on-the-job visits and individual progress review sessions. Students are required to describe their objectives and attain specific job skills. Students attend a bi-weekly, two-hour seminar on campus and work a minimum of 13 hours a week. *Individuals must be recommended by the faculty and the chairperson of the department. For additional details, see the department chairperson.*

Directories

FACULTY AND ADMINISTRATIVE STAFF

Lucille Alfieri, *Assistant Professor, English; B.S., M.S., Brooklyn College*
George Allen, *Assistant Professor, Biology; B.S., Albright College; Ph.D., Syracuse University*
Simon Aloff, *Professor, Mathematics; B.A., New York University; M.A., Princeton University; Ph.D., Rutgers, The State University*
Susan Altman, *Associate Professor, Visual, Performing and Media Arts; B.F.A., State University of Buffalo; M.F.A., Tyler School of Art, Temple University*
Elisabeth Altruda, *Professor, English; A.A., Staten Island Community College; B.A., College of Staten Island, City University of New York; M.A., Seton Hall University; D. Litt., Drew University*
N. Alex Arauz, *Financial Aid Officer; B.S., Universidad de Panama; M.S., New Jersey City University*
Paul Bachmann, *Associate Professor, Mathematics; B.S., M.S., Seton Hall University*
Janet Baker, *Associate Professor, Biology; B.A., Georgian Court College; M.S., Rutgers, The State University*
Nancy Bailey, *Associate Professor, Chair, Business Administration and Management; B.A., M.A., New York University*
Xenia Balabkins, *Associate Professor, Business Administration and Management; B.A., Douglass College, Rutgers, The State University; M.B.A., Rutgers, The State University*
Ronald Balint, *Assistant Director, Buildings and Grounds; B.S., Delaware Valley College*
Mark Banyacski, *Assistant to the Director of Finance; B.A., Rutgers, The State University*
Steven Barnhart, *Associate Professor, Chair, Psychology and Education; B.S., University of Arizona; Ed.M., M.S., Ph.D., Rutgers, The State University*
Nora Barrett, *Associate Professor, Program Director, Joint Psychosocial Rehabilitation and Treatment Program, University of Medicine and Dentistry of New Jersey; L.C.S.W., C.P.R.P., B.S., Syracuse University; M.S.W., New York University*
Raymond Battaglia, *Programmer/Analyst II, Information Technology; A.A.S., Middlesex County College; B.S., Cook College, Rutgers, The State University*
Gail Becker, *Instructor, Chemistry and Physics; B.S., Seton Hall University; M.S., Ph.D., Rutgers, The State University*
Gina Bedoya, *Assistant Professor, Counseling and Career Services; A.A., Middlesex County College; B.A., Ed.M., Rutgers, The State University*
Elaine Berlin, *Assistant Director, Professional and Community Programs; B.S., Rutgers, The State University*
James Bernarducci, *Associate Professor, English; B.A., Kean University; M.A., William Paterson University*
Sudipta Biswas, *Associate Professor, ESL/Languages and Cultures; B.Ed., St. Theresa's Institute of Education; B.A., Sophia College; M.A., Tennessee Technical University; M.A., Fairleigh Dickinson University*
Virgil H. Blanco, *Professor, Chair, ESL/Languages and Cultures; Director, Center for International Education; B.A., University of Miami; M.A.T., Fairleigh Dickinson University; Diploma, University of Salamanca, Spain; Ph.D., University of Madrid*
David Boelhower, *Network and Technical Services Supervisor, Information Technology*
Mary Ann Bogar, *Assistant Professor, Visual, Performing and Media Arts; B.A., M.A., The College of New Jersey*
Barbara Bogner, *Associate Professor, Biology; B.S., The State University of New York at Stony Brook; M.S., Villanova University*
Claudine Bowers, *Instructor, Admissions; B.A., Douglass College, Rutgers, The State University*
James Brackenridge, *Associate Professor, Business Administration and Management; B.S., Case Institute of Technology; M.S., Stanford University; M.B.A., Harvard University*
Marla Brinson, *Interim Dean, Enrollment and Student Support Services; B.A., Lincoln University, PA; M.A., Kean University*
Desiree Brower, *Instructor, Admissions; B.A., Rutgers, The State University*
Roseann Bucciarelli, *Director, Grants Development; B.A., Fordham University; M.A., Ed.D., Seton Hall University*
Francis Burke, *Associate Professor, Chair, Computer Science; A.A., Middlesex County College; B.S.M.E., General Motors Institute; M.S., Stevens Institute of Technology*
Rita Burton, *Associate Professor, Counseling and Career Services; B.A., St. Joseph's College, India; M.A., Montclair University*
Santi V. Buscemi, *Professor, English; B.A., Saint Bonaventure University*
Laura Cahill, *Employee Compliance Coordinator; Finance and Administration; A.A.S., Middlesex County College*
Croyden Caines, *Textbook Manager, Bookstore*
Patricia Cardinale, *Director, Grant Accounting; A.A.S., Middlesex County College; B.S., Kean University*
Leslie A. Carter, *Assistant Professor, Counseling and Career Services; A.A., Brookdale Community College; B.A., Rutgers, The State University; M.Ed., The College of New Jersey*
Brenda A. Cavanaugh, *Assistant Professor, ESL/Languages and Cultures; B.A., Douglass College, Rutgers, The State University; M.A., University of Missouri*
Larry Chiang, *Systems and Database Administrator; Information Technology; B.S., National Cheng Kung University; M.S., Fairleigh Dickinson University*
Erin A. Christensen, *Associate Professor, Biology; B.S., Kean University, M.S., Wagner College; Ph.D., Rutgers, The State University*
John Cielesz Jr., *Warehouse Supervisor, Warehouse and Receiving*
Wilson Class, *Associate Professor, English; B.A., M.Ed., Rutgers, The State University*
Ana Class-Rivera, *Instructor, Counseling and Career Services; B.S., Saint Peter's College; M.A., New Jersey City University*
Ricki J. Cohn, *Associate Professor, English; B.A., Drew University; M.A., University of Connecticut*
Robert W. Colburn, Jr., *Associate Professor, Biology; B.S., Monmouth University; M.S., Fairleigh Dickinson University*
Gertrude Coleman, *Associate Professor, English; B.A., The State University of New York at Geneseo; M.S., Richmond College; M.A., The College of Staten Island*
Richard A. Conley, *Associate Professor, Chemistry and Physics; B.S., Moravian College; M.S., University of Delaware; Ph.D., Lehigh University*
Mary Ann Conners, *Dean, Corporate and Community Education; B.A., St. Louis University; M.A.T., Monmouth University*
Kathleen Costanzo, *Assistant Professor, Dental Auxiliaries Education; A.A.S., Middlesex County College; B.S., Rutgers, The State University; M.Ed., The College of New Jersey*
David A. Crampton, *Assistant Professor, Learning Resource Center; B.A., M.A., Tufts University; M.L.S., Rutgers, The State University*
Sally D'Aloisio, *Administrative Assistant, Office of the President; A.A.S., Raritan Valley Community College*
Patricia Daly, *Assistant Director, Student Activities and College Center; B.S., M.Ed., The College of New Jersey*
Loretta Daniel, *Assistant Professor, English; B.A., University of Rochester; M.S., Polytechnic University*
Michael J. David-Wilson, *Executive Director, Middlesex County College Foundation; B.A., St. Alphonsus College; M.T.S., Washington Theological Union; Graduate Certificate, Non-for-Profit Management, Seton Hall University*
Audrey Davis, *Assistant Director, Student Activities and College Center; B.A., State University of New York at Albany; M.A., Cornell University*
Walter A. DeAngelo, *Director of Labor Relations; B.A., Seton Hall University; J.D., Fordham University School of Law*

Louis A. Dell'Omo, *Assistant Professor, Visual, Performing and Media Arts; B.A., M.A., Monmouth University; M.A., Montclair State University*

Maria DeLucia, *Professor, Chair, Mathematics; B.A., M.A., New Jersey City University; Ph.D., New York University*

Sallie DelVecchio, *Associate Professor, English; B.S.E., Southern Arkansas University; M.A., University of Arkansas*

Brian de Uriarte, *Assistant Professor, Business Administration and Management; B.A., University of Pennsylvania; M.A., Rutgers, The State University*

Timothy Dey, *Assistant Professor, Accounting and Legal Studies; A.S., Middlesex County College; B.A., Rutgers, The State University; J.D., Rutgers University School of Law*

Naresh Dhanda, *Assistant Professor, Computer Science; B.A., B.S., B.Ed., Panjab University; M.S., University of London; M.S., Jackson State University*

Charles V. DiDomenico, *Assistant Professor, English; B.A., Villanova University; M.A., New York University*

Ellen Dikun, *Associate Professor, Radiography Education; A.A., Brookdale Community College; B.S., Kean University; R.T. (R), Monmouth Medical School of Radiologic Technology; M.B.A., Monmouth University*

Judith DiMaio, *Manager, Health and Safety, Environmental Safety; A.A.S., A.S., Middlesex County College; B.S., Rutgers, The State University; M.S., John Jay College, City University of New York*

Emanuel DiPasquale, *Assistant Professor, English; Poet in Residence; B.A., Adelphi University; M.A., New York University*

Ann Dobshinsky, *Assistant Professor, Mathematics; B.S., Boston University; M.A., Teachers College, Columbia University*

Charles Dolan, *Assistant Professor, Learning Resource Center; B.A., M.L.S., Rutgers, The State University*

Robert Dougherty, *Supervisor, Custodial Services*

Thomas Drew, *Assistant Professor, Mathematics; B.S., St. Peter's College; M.A., Jersey City State College*

Donald R. Drost, Jr., *Executive Director, Facilities Management; A.A.S., Middlesex County College; B.S., College of New Jersey; M.S., New Jersey Institute of Technology*

Keith Drumbore, *Assistant Professor, English; B.A., University of Iowa; M.A., Rutgers, The State University*

John Dunning, *Director, Minority Student Affairs; B.A., Montclair State University; M.A., Seton Hall University*

Andrew Dzurisin, *Assistant Professor, History and Social Behavior; B.S., The Richard Stockton College of New Jersey; M.A., University of Massachusetts*

Jay Edelson, *Associate Professor, Engineering Technologies; B.E., M.S., New York University; P.E., New Jersey, New York*

Robert Edmonds III, *Assistant Athletic Director; B.S., East Stroudsburg University*

Melissa Edwards, *Assistant Professor, English; B.A., University of North Texas; M.S., Northern Illinois University*

Richard A. Ellison, *Associate Professor, Chair, Accounting and Legal Studies; B.A., Rutgers, The State University; M.B.A., Fairleigh Dickinson University*

Kathy A. Fedorko, *Professor, English; B.A., University of Redlands; M.A., Ph.D., Rutgers, The State University*

James Ferrell, *Instructor, Radiography Education; A.A.S., Middlesex County College; B.S., Manhattan College; M.P.A., Kean University*

James Finne, *Associate Professor, Engineering Technologies; B.S.M.E., Lehigh University; M.S.E.E., Rutgers, The State University; P.E., New Jersey*

Phyllis Fleming, *Associate Professor, Computer Science; B.B.A., Pace University; M.S., Stevens Institute of Technology*

Thomas Foga, *Financial Aid Technology, Financial Aid; B.A., Rutgers, The State University*

Steven Foster, *Associate Professor, Engineering Technologies; B.E.E., Cooper Union; M.S.E.E., Massachusetts Institute of Technology; P.E., New Jersey*

David Fricke, *Director, Purchasing and Inventory; B.A., The Richard Stockton College of New Jersey, C.P.M.; R.P.P.O.*

Daniel Fuchs, *Assistant Director, Facilities Maintenance*

Shunfu Gao, *Associate Professor, Chemistry and Physics; B.S., Soochow University, China; M.A., Ph.D., City University of New York*

Donna-Marie Gardner, *Instructor, Biology; B.S., M.A., Columbia University*

John Gaspar, *Assistant Professor, Mathematics; B.A., M.A., Montclair State College*

Trace Gerow, *Professor, Chair, Biology; B.S., University of Illinois; M.S., University of Massachusetts; Ed.D., Rutgers, The State University*

Leah A. Ghiradella, *Assistant Professor, English; B.A., M.Ed., Rutgers, The State University*

Andre Gittens, *Assistant Professor, Learning Resource Center; B.A., Cook College, Rutgers, The State University; M.L.S., Rutgers, The State University*

Barry Glazer, *Assistant Professor, English; A.A., Middlesex County College; B.A., Rutgers, The State University; M.A., Montclair State University*

Ronald C. Goldfarb, *Vice President for Legal and External Affairs; B.A., City University of New York; J.D., New York University School of Law*

Fannie Gordon, *Assistant Dean, Enrollment and Student Support Services; Director, Educational Opportunity Fund; B.A., University of Maryland; M.A., University of Connecticut; Ed.D., Rutgers, The State University*

Margaret Gorlin, *Associate Professor, Mathematics; B.A., Temple University; M.S., Drexel University*

Nanette Granuzzo, *Assistant Professor, ESL/Languages and Cultures; B.A., M.A.H., State University of New York at Buffalo*

Brenda C. Gray, *Professor, History and Social Behavior; B.A., North Carolina Central University; M.A., Ph.D., University of Michigan*

Michael L. Greenhouse, *Associate Professor, History and Social Behavior; A.B., Rutgers, The State University; M.A., New School for Social Research*

Daine A. Grey, *Assistant Professor, Psychology and Education; B.S., Delaware State University; M.A., Ph.D., Princeton University*

Edwin C. Griffith, *Assistant Professor, Registrar; B.A., M.Ed., The College of New Jersey*

Barbara Gross, *Coordinator, Counseling and Career Services; B.S., The State University of New York at Plattsburgh*

Lucy Gullo, *Assistant Professor, Mathematics; B.A., M.S.Ed., Queens College*

John J. Gutowski, *Professor, Psychology and Education; B.A., M.A., New Jersey City University; Ed.S., Nova Southeastern University*

Thomas Halasinski, *Instructor, Chemistry and Physics; B.S., Fordham University; Ph.D., Michigan State University*

Thomas M. Handler, *Professor, Engineering Technologies; B.E.E., City College of New York; M.S.E.E., Drexel Institute of Technology; P.E., New Jersey*

Christine Harrington, *Associate Professor, Psychology and Education; B.A., M.A., College of New Jersey; Ph.D., Lehigh University*

Selina Harris, *Assistant Professor, Mathematics; B.A., Bernard Baruch College, City University of New York; M.A., New York University*

Gertrude Harris-Johnson, *Assistant Professor, Educational Opportunity Fund; B.S., Bowie State University; M.Ed., The College of New Jersey; Ed.D., Nova Southeastern University*

Karen L. Hays, *Vice President, Academic and Student Affairs; A.A., Miami-Dade Community College; B.A., University of Florida; M.A., Florida Atlantic University; Ph.D., The University of Texas at Austin*

Brenda Heise-Bezares, *Administrative Assistant, Office of the Vice President, Academic and Student Affairs; A.A.S., Middlesex County College*

Nadine Heller, *Assistant Professor, Chair, Visual, Performing and Media Arts; B.A., Brooklyn College, City University of New York; M.F.A., Columbia University*

John R. Herrling, *Director, Counseling and Career Services; B.A., M.Ed., Springfield College; Ed.D., Rutgers, The State University*

Robin Hetzko, *Assistant Manager, Printing and Communications*

Albert Heuer, *Assistant Professor, Program Director, Joint Respiratory Care Program, University of Medicine and Dentistry of New Jersey; R.R.T., M.B.A., Fairleigh Dickinson University*

Hope-Claire Holbeck, *Assistant Professor, Chair, Dental Auxiliaries Education; B.A., State University of New York at Oneonta; B.S., Columbia University; M.S., Columbia University*

Jason Holmwood, *Counselor, Counseling and Career Services; B.A., Houghton College; M.A., Seton Hall University*

Theresa T. Holt, *Professor, Psychology and Education; B.A., Hampton University; M.A., University of Illinois; Ed.M., Ed.D., Rutgers, The State University*

Patrick Honey, *Assistant Professor, Health, Physical Education, Recreation and Dance; B.S., Seton Hall University; M.A., Montclair State University*

Hillary K. Hyman, *Associate Professor, ESL/Languages and Cultures; B.A., Washington College; M.A., Montclair State University; Ph.D., New York University*

Vincent Ianuale, *Assistant Professor, History and Social Behavior; B.A., M.A., New Jersey City University; M.A., Seton Hall University*

Vicki Kahn, *Assistant Professor, ESL/Languages and Cultures; B.A., The State University of New York at Stony Brook; M.A., Hunter College, City University of New York*

James A. Kahora, *Assistant Professor, Health, Physical Education, Recreation and Dance; B.S., West Chester State College; M.A., Seton Hall University*

Irwin H. Kantor, *Professor, History and Social Behavior; A.B., M.A., M. Phil., Ph.D., Rutgers, The State University*

Virender Kanwal, *Assistant Professor, Biology; B.A., M.S., Ph.D., University of Delhi, India*

Karen Katt, *Director, Blue Colt Bookstore, Retail Services Corporation,; B.S., Montclair State University*

Deborah Keenan Lynch, *Associate Professor, Hotel, Restaurant and Institution Management; A.A., Suffolk County Community College; B.S., The State University of New York at Oneonta; M.A., New York University*

James Keller, *Assistant Professor, English; B.A., Rutgers, The State University; M.A., Montclair State University*

Saul B. Kelton, *Associate Professor, Psychology and Education; B.A., Rutgers, The State University; M.A., New School for Social Research*

Myung-In Kim, *Director, Testing and Tutoring Center; B.A., Haverford College; M.A., Fordham University; Ed.M. Rutgers, The State University*

Renu Kinkhabwala, *Communications Management Specialist; Registrar, B.A., Xavier's College, India*

William Kleinelp, *Associate Professor, Biology; B.A., M.S., Fairleigh Dickinson University*

Kimberley Krapels, *Instructor, Radiography; A.A.S., Middlesex County College; B.S., Rutgers, The State University; R.T. (R)*

Francine Krimsky, *Assistant Professor, Visual, Performing and Media Arts; A.A.S., Kingsborough Community College; A.A.S., Middlesex County College; B.A., Thomas Edison State College; M.A., Kean University*

John F. Kruszewski, *Director, Academic Advising and Open College Program; B.A., Georgetown University; M.A., Fordham University*

Joann La Perla-Morales, *President; B.A., The State University of New York at Oneonta; M.A., Ed.D., Teachers College, Columbia University*

Mabel Lam, *Accounts Receivable Analyst, Business Office; A.S., Los Angeles City College; B.S., California State University*

Josephine M. Lamela, *Associate Professor, Chemistry and Physics; B.A., Montclair State University; M.A.T., Harvard University; M.S., Iowa State University*

Michael Landers, *Assistant Professor, Accounting and Legal Studies; B.B.A., Niagara University; M.B.A., Pace College*

Janet Lansinger, *Assistant Professor, Chemistry and Physics; B.A., Gettysburg College; M.A., The State University of New York at Binghamton; Ph.D., Washington State University*

Randolph Larate, *Facilities Project Manager, Facilities Engineering; B.S., New Jersey Institute of Technology*

Stephen P. Larkin III, *Chair, Medical Laboratory Technology; Director, Health Technology Program; A.A.S., Middlesex County College; B.S., Fairleigh Dickinson University; Certificate, Medical Technology, Muhlenberg Hospital School of Medical Technology; M.H.S.A., St. Joseph's College*

Marilyn Laskowski-Sachnoff, *Dean, Business, Computer Science and Engineering Technologies; B.S., College of Saint Elizabeth; M.A., New York University*

Jane Lasky-MacPherson, *Associate Professor, English; B.A., Northeastern University; M.A., Montclair State University*

Gregory LeBlanc, *Assistant Professor, Health, Physical Education, Recreation and Dance; A.A., A.A.S., Hudson Valley Community College; B.S.E., The State University of New York at Cortland; M.S., University of Wisconsin*

Lynn Lederer, *Director, Professional and Community Programs; B.S., State University of New York at Buffalo; Ed.M., Rutgers, The State University*

Lynne Ng Lee, *Curriculum Management Specialist, Registrar; B.A., Brooklyn College, City University of New York*

Risa Levi, *Instructor, Dental Auxiliaries Education; B.S., M.S., Columbia University*

Dennis Lick, *Associate Professor, Visual, Performing and Media Arts; B.F.A., Miami University of Ohio; M.F.A., Rutgers, The State University*

Jane Liefert, *Professor, Computer Science; B.S., Kean University; M.S., Monmouth University; Ed.S., Nova Southeastern University*

Angela Lugo, *Associate Professor, English; B.A., M.A., University of Puerto Rico*

Reginald K. Luke, *Dean, Science, Mathematics and Health Technologies; B.S., Gonzaga University; M.S., Ph.D., Rutgers, The State University*

Mary Lynch, *Associate Professor, ESL/Languages and Cultures; A.A., Middlesex County College; B.A., Montclair State University; M.Ed., The College of New Jersey; M.A., Kean University*

JoAnn Lyons, *Director, Office and Systems Management, Corporate and Community Education; B.S., Kean University*

Mary-Pat Maciolek, *Associate Professor, Chair, Hotel, Restaurant and Institution Management; Director, Dietetic Technology; B.S., College Misericordia; M.B.A., Georgian Court College*

Sheema Majiduddin, *Instructor, Counseling and Career Services; B.A., Ed.M., Rutgers, The State University*

Michael Maloney, *Systems Engineer, Information Technology*

Natalia Malyk-Selivanova, *Assistant Professor, Chemistry and Physics; M.S., Leningrad University; Ph.D., Rutgers, The State University*

Louis Marius, Jr., *Assistant Director; Educational Opportunity Fund; B.S., M.S., Northeastern University*

Patricia Marrero, *Director, Accounting, Business Office; B.S., Rutgers, The State University*

Benjamin Marshall, *Associate Professor, English; B.A., Kean University; M.F.A., University of Massachusetts at Amherst*

Maria Marshall, *Assistant Professor, Visual, Performing and Media Arts; B.A., Indiana University; M.F.A., Brooklyn College, City University of New York*

Roslyn Mass, *Professor, Psychology and Education; A.B., Temple University; Sc.M., Brown University; Ph.D., Rutgers, The State University*

Anthony Matagrano, *Professor, Mathematics; B.A., Rutgers, The State University; M.S., Ph.D., Stevens Institute of Technology*

Doris Mayner, *Associate Professor, Biology; B.S., M.S., Ohio State University*

Terry McGlincy, *Director, Student Activities and the College Center; B.A., M.A., Montclair State University; M.S., Rutgers, The State University; J.D., Seton Hall University School of Law*

Ellen Measday, *Associate Professor, ESL/Languages and Cultures; B.A., The George Washington University; M.A., University of Oregon*

Michele Menditto, *Financial Aid Officer; A.A., Staten Island Community College; B.A., College of Staten Island; M.S., Baruch College, the City University of New York; M.L.S., Rutgers, The State University*

Frank Mento, *Associate Chair; Mathematics; B.A., M.A., Montclair State University*

Michael Miniere, *Professor, Mathematics; A.A., Hagerstown Junior College; B.S., Montclair State University; M.S., Ph.D., Stevens Institute of Technology*

Joseph J. Misuraca, *Assistant Professor, Engineering Technologies; B.S.M.E., M.S., Rutgers, The State University; P.E., New Jersey*

Aimee Mitacchione, *Assistant Professor, Health, Physical Education, Recreation and Dance; B.F.A., Barat College; M.A., New York University*

John Moetz, *Bursar, Business Office; B.S., College of New Jersey*

Seham Mohamed, *Lab Technician, Counseling and Career Services; B.Sc., Alexandria University, Egypt*

John Mondano, *Director, Facilities Maintenance*

Carey Monkowski, *Assistant Athletic Director; B.A., Western New England College; M.A., Springfield College*

Frederick Montana, *Professor, Chemistry and Physics; B.A., Montclair State University; Ph.D., University of Utah*

Tracey Montani, *Director; Career Training Center; Corporate and Community Education; B.A., Rutgers, The State University; M.P.A., Kean University*

Maria Mora, *Director, Perth Amboy Center; B.S., University of Puerto Rico; M.S.W., Rutgers, The State University*

Patricia Moran, *Director, The Institute; B.S., Rider College; M.A., Kean University; Ph.D., Walden University*

RoseAnn Morgan, *Professor, English; B.A., University of California; M.A., Rutgers, The State University*

Jack Moskowitz, *Associate Professor, English; B.A., City College of New York; M.A., Brandeis University*

John J. Murray, *Professor, Chemistry and Physics; B.S., Manhattan College; Ph.D., Fordham University*

Uma Narayanan, *Instructor, Biology; B.S., M.S., M.Phil., Ph.D., University of Madras, India*

Jeremy Nickerson, *Instructor, Visual, Performing and Media Arts; B.S., Medaille College; M.S., Canisius College*

Albert Nicolai, *Professor, English; A.B., Hope College; M.A., Temple University*

Elisabeth Oliu, *Assistant Professor, Learning Resource Center; B.A., William and Mary College; M.L.S., Rutgers, The State University*

Jerome Olson, *Assistant Professor, English; B.A., M.A., The State University of New York at Fredonia*

Olubayi Olubayi, *Associate Professor, Biology; A.A.S., The State University of New York at Farmingdale; B.S., Florida Atlantic University; Ph.D., Rutgers, The State University*

Edwin R. Onyschak, *Associate Director, Networking and Technical Services, Information Technology; A.S., Middlesex County College; B.S., New Jersey Institute of Technology*

Theresa Orosz, *Assistant Director, Advising and Open College; A.A.S., Middlesex County College; B.S., M.A., Kean University*

Jeannette O'Rourke, *Assistant Professor, Mathematics; B.S., Fairleigh Dickinson University; M.A., New York University*

Jeanne Osborne, *Assistant Professor, Mathematics; B.A., M.A., State University of New York at Albany*

Jane Ostacher, *Assistant Professor, ESL/Languages and Cultures; B.A., Barnard College; M.A., Hunter College, City University of New York*

Lewis Ostar, *Director, Learning Resource Center; B.B.A., Hofstra University; M.L.S., Queens College*

Elizabeth Pajauis, *Transfer Articulation Advisor, Counseling and Career Services; A.A.S., Middlesex County College; B.A., Thomas A. Edison State College*

Lauren Palladino, *Assistant Director, Purchasing and Inventory; A.A.S., Middlesex County College*

Michael Paquette, *Instructor, History and Social Behavior; B.S., Trenton State College; M.S., New Jersey City University*

Elliot L. Pasternack, *Assistant Professor, History and Social Behavior; B.A., M.A., Montclair State University*

Patricia Payne, *Professor, History and Social Behavior; A.S., Middlesex County College; B.S., New Jersey City University; J.D., Ohio Northern University*

Claire A. Pean, *Associate Professor, Dental Auxiliaries Education; B.S., Fairleigh Dickinson University; M.A., New Jersey City University; M.L.S., Rutgers, The State University*

Martin N. Pearlman, *Professor, Psychology and Education; A.B., Brooklyn College; M.A., University of Michigan; Ph.D., Rutgers, The State University*

Janet Peleg, *Professor, ESL/Languages and Cultures; B.A., Queens College, City University of New York; M.A., Hunter College, City University of New York*

Susan K. Perkins, *CPA, Vice President, Finance and Administration, B.S., M.B.A., Rider University*

Arthur T. Peterson, *Professor, Business Administration and Management; A.B., Upsala College; M.S., Ed.D., Rutgers, The State University*

Thomas J. Peterson, *Director, Marketing and Public Information; B.A., University of Dayton*

Alice Picardo, *Director, First Year Experience; B.A., M.A., Seton Hall University*

Nicholas Picioccio, *Associate Professor, Computer Science; B.S., Montclair State University*

Alane Poirier, *Assistant Professor, Visual, Performing and Media Arts; B.F.A., University of Houston; M.F.A., Rutgers, The State University*

George Popel, *Professor, Mathematics; B.I.E., Ohio State University; M.S., John Carroll University*

Renee Price, *Assistant Professor, English; B.A., Douglass College, Rutgers, The State University; M.A., Kean University*

Margaret Przygoda, *Professor, Biology; B.A., Georgian Court College; M.S., Rutgers, The State University*

Charlotte Quigley, *Manager, Counseling and Career Services; B.S., The State University of New York at Oneonta; M.B.A., Adelphi University*

Elena Rakova, *Assistant Professor, Mathematics; B.S., M.S., St. Petersburg State University, Russia; Ph.D., St. Petersburg Electrotechnical University, Russia*

Elliot J. Ramer, *Associate Professor, ESL/Languages and Cultures; B.A., M.A., State University of New York; M.A., New York University*

Iris Ramer, *Professor, ESL/Languages and Cultures; B.A., Inter-American University of Puerto Rico; M.A., New York University, D. Litt., Drew University*

John Ramirez, *Associate Professor, Psychology and Education; A.A., Bronx Community College; B.A., Lehman College, the City University of New York; M.A., M.Ed., Teachers College, Columbia University*

Edwin Reid, *Director, Network Technical Services; Information Technology*

Ethel Reid, *Assistant Professor, Accounting and Legal Studies; B.S., Alabama State University; Ed.M., Rutgers, The State University*

Catherine Reilly, *Associate Professor, Dental Auxiliaries Education; A.A.S., Hudson Valley Community College; B.S., State University of New York at Cortland; M.S., Columbia University; M.S.W., Rutgers, The State University*

Guy A. Reynolds, *Instructor, Mathematics; B.S., Stanford University; M.S., New York University*

Brian Richards, *Director, Instructional Design and Media Services, Learning Resources Center; B.S., University of Sussex, United Kingdom; M.Ed., University of Bath, United Kingdom; P.G.C.E., University of Reading, United Kingdom*

Alan Rittman, *Director, Facilities Engineering; A.A.S., Middlesex County College; B.S., New Jersey Institute of Technology*

Joseph Roach, *Professor, English; B.A., University of Texas; M.A., New York University; Ph.D., New York University*

Karen Rodriguez, *Assistant Professor, ESL/Languages and Cultures; B.A., Queens College; M.A., New York University*

Lisa Rodriguez-Gregory, *Associate Director, Admissions; A.A., Middlesex County College, B.A., Kean University*

Alison C. Rolling, *Benefits Coordinator, Human Resources; B.S., Seton Hall University*

Evelyn J. Rosa, *Interim Director, New Brunswick Center; B.A., Ed.M., Rutgers, The State University*

Manuel Rosario, *Supervisor, Custodial Services*

Ronald R. Rose, *Manager, Printing and Communications Support; A.A.S., Trenton State College*

Robert Roth, *Professor, English; B.S., Massachusetts Institute of Technology; A.M., Ed.D., Rutgers, The State University*

Steven P. Rowley, *Professor, Chemistry and Physics; B.A., Carleton College; Ph.D., University of California*

Richard Roy, *Associate Chair, ESL/Languages and Cultures; A.A., Bend Lake College; B.A., Southern Illinois University; M.A., Western Washington University*

Christine Rutowski, *Captain of Police, Public Safety/Police*

Thomas Sabol, *Assistant Professor, Chair, Engineering Technology; B.S., M.S., Rutgers, The State University*

Juan M. Saborido, *Assistant Professor, ESL/Languages and Cultures; B.S., Universidad de Santiago de Compostela, Spain; B.A., New Jersey City University; M.A., Saint John's University*

Neil S. Sachnoff, *Executive Director, Information Technology; A.A.S., Queensborough Community College; B.B.A., Baruch College, the City University of New York*

Anna Sadowska, *Associate Professor, Accounting and Legal Studies; B.S., M.B.A., University of Rhode Island*

Maxy I. Santana, *Administrative Assistant, Vice President for Finance and Administration; A.A.S., Middlesex County College*

Marianne Santelli, *Assistant Professor, ESL/Languages and Cultures; B.A., M.A., Fairleigh Dickinson University*

Michael Scanlon, *Professor, Mathematics; B.S., Saint Peter's College; M.S., Stevens Institute of Technology*

Bruce Schaeffer, *Systems Engineer, Information Technology; A.A.S., County College of Morris; B.S., University of Hartford*

Naomi Schatz, *Professor, Computer Science; B.A., M.S., Rutgers, The State University*

Gail Scott-Bey, *Director, Financial Aid; B.A., William Paterson University; M.A., Temple University*

Thomas Seck, *M.D., College Physician; Family Practice – University of Medicine and Dentistry of New Jersey*

Stephanie Serrano-Vera, *Assistant Professor, ESL/Languages and Cultures; B.A., M.Ed., Rutgers, The State University*

Dhirubhai K. Shah, *Research Assistant, Institutional Research; B.S., M.S., Ph.D., M.S. University, India*

Kathleen B. Shay, *Professor, Mathematics; A.B., Douglass College, Rutgers, The State University; Ed.M., M.S., Rutgers, The State University*

Alan Sherman, *Professor, Chemistry and Physics; B.A., Rutgers, The State University; M.S., New Jersey Institute of Technology; Ed.D., Rutgers, The State University*

Jerome Shindelman, *Professor, History and Social Behavior; A.B., M.A., Rutgers, The State University*

Susan Shulman, *Assistant Professor, Mathematics; B.A., Brooklyn College; M.A., University of Minnesota*

Ellen Shur, *Instructor, English; B.S., M.S., Jersey City State College*

Joanne Shurtleff, *Director, Enrollment Services, Registrar; B.A., University of Delaware; Ed.M., Boston University*

Elena Shvedov, *Programmer/ Analyst II, Information Technology; B.A., Rutgers, The State University*

Jay D. Siegfried, *Professor, Visual, Performing and Media Arts; B.A., Yankton College; M.A., M.F.A., University of Iowa*

Beverly Simon, *Professor, Computer Science; B.A., Boston University, M.S., Fairleigh Dickinson University; Ph.D., Nova Southeastern University*

Yvonne Sisko, *Associate Professor, English; B.A., University of Michigan; M.A., Kean University*

Robert Smilek, *Chief of Police, Public Safety/Police*

Adrienne Smith, *Director, Child Care Center; A.A., Virginia Intermount College; B.S., Auburn University; M.S., Northern Illinois University*

Lafayette N. Smith, Jr., *Assistant Professor, Counseling and Career Services; B.A., M.A., Upsala College*

Albert M. Snopek, *Assistant Professor, Chair, Radiography Education; B.S., Fairleigh Dickinson University; R.T.(R), New York Hospital/Cornell Medical Center Radiography*

Lynn Somers, *Manager, Academic Information Technology Support; B.A., Rowan University*

Cynthia Sorace, *Assistant Professor, Health, Physical Education, Recreation and Dance; B.S, M.S., Stroudsburg University*

Amy Spagnolo, *Assistant Professor, Joint Psychosocial Rehabilitation and Treatment; B.S., University of Medicine and Dentistry of New Jersey/Kean University; M.S., University of Medicine and Dentistry of New Jersey*

Mathew Spano, *Professor, English; A.A., Middlesex County College; B.A., Rutgers, The State University; M.A., Drew University; Ph.D., Rutgers, The State University*

Jeffrey Spector, *Associate Professor, Computer Science; B.S., Stockton State College; M.B.A., Rutgers, The State University*

Flor Sprinitis, *Financial Analyst, Business Office; A.A.S., Middlesex County College; B.S., Thomas Edison State College; B.A., Ricardo Palma University, Peru*

Joanne T. Stern, *Assistant Director, Marketing and Public Information; B.S., Syracuse University; M.A., Columbia University*

Dorothy Steinsapir, *Associate Professor, Accounting and Legal Studies; B.A., Douglass College, Rutgers, The State University; M.A., Newark State College; M.B.A., Seton Hall University*

James B. Stewart, *Assistant Professor, Visual, Performing and Media Arts; B.M.E., Cornell University; M.A., Kean University*

Albert Craig Stickler, *Assistant Professor, Engineering Technologies; B.S., Rensselaer Polytechnic Institute; M.S., Ph.D., Cornell University*

Anthony Stoikovski, *Buyer, Purchasing; B.A., University of Maryland*

Neil Storm, *Assistant Professor, ESL/Languages and Cultures; B.A., Rutgers, The State University; M.A., Seton Hall University*

Gwendolyn Strokus, *Coordinator, Environmental Safety; A.A.S., Middlesex County College*

Richard Strugala, *Professor, English; A.B., Ed.M., Ed.D., Rutgers, The State University*
Richard Sudnick, *Supervisor; Custodial Services*
Helena Swanicke, *Associate Professor, English; B.S., Rutgers, The State University; M.A., Concordia College*
Aimee Szilagyi, *Assistant Professor, English; B.A., St. Peter's College; M.A., Montclair State University*
Ralph A. Tellone, *Associate Professor, Hotel, Restaurant and Institution Management; A.A.S., Middlesex County College; B.S., Fairleigh Dickinson University; M.B.A., Seton Hall University*
Lucia Tillotson, *Professor, Biology; B.S., Indiana University; Ph.D., Rutgers, The State University*
Diane Trainor, *Professor, Chair, Chemistry and Physics; B.A., New Jersey City University; M.S., University of Minnesota; M.A., Ph.D., New York University*
Marvetta Troop, *Assistant Director, Marketing Production, Marketing and Public Information*
Rachel Turoscy, *Instructor, Chemistry and Physics; B.S., M.S., Lehigh University*
Mary Tutulo, *Buyer, Marketing Manager, Bookstore; A.A.S., Middlesex County College*
Clairie Vassiliadis, *Assistant Professor, Mathematics; B.S., M.S., New Jersey Institute of Technology*
Joseph F. Vastano, *Associate Professor, Hotel, Restaurant and Institution Management; A.A.S., New York City Community College; B.S., Oklahoma State University; M.S., Rutgers, The State University*
Victor Vega, *Associate Professor, Counselor, Educational Opportunity Fund; B.S., Syracuse University; M.A., Fairleigh Dickinson University; M.A., Ph.D., Temple University*
Martha Velez, *Director, Employee Services; A.A.S., Middlesex County College; B.S., Kean University*
Gina Viafora, *Director, Web Integration, Information Technology; A.A.S., Middlesex County College*
Jean Volk, *Professor, Accounting and Legal Studies; B.A., Wagner College; J.D., Seton Hall University School of Law; M.B.A., Fairleigh Dickinson University*
Shirley Wachtel, *Professor, English; B.A., Brooklyn College; M.A., Long Island University; D.Litt., Drew University*
Jack L. Waintraub, *Professor, Engineering Technologies; A.A.S., Academy of Aeronautics; B.S.E.E., Polytechnic Institute of Brooklyn; M.S.E.E., Rutgers, The State University; P.E., New Jersey*
Regina Wallace, *Clinical Education Coordinator; Radiology; B.A., Kean University*
Christine Wathen, *Instructor, Business, Administration and Management; A.S., Middlesex County College; B.S., M.B.A., Seton Hall University*
Aretha Watson, *Assistant Dean, Enrollment and Student Support Services; Director, Admissions; B.S., St. Peter's College; M.S., Monmouth University*
Elaine Weir-Daidone, *Associate Professor, Counselor for Students with Disabilities, Counseling and Career Services; B.A., Fairleigh Dickinson University; M.Ed., Pennsylvania State University*
Lori A. Wilkin, *CPA, Controller, Business Office; B.S., St. Joseph's University*
Lynn Winik, *Assistant Professor, Visual, Performing and Media Arts; B.S., Northwestern University; M.A., New York University*
Robert Wisniewski, *Associate Professor, Chair, Health, Physical Education, Recreation and Dance; Director, Physical Education Center; Athletic Director; B.A., Hunter College; M.S., Brooklyn College; M.A., New York University*
Faxian Yang, *Director, Research; B.E., Beijing Institute of Chemical Engineering; M.A., M.S., Ed.D., West Virginia University*
Paul Yarmchuk, *Associate Professor, Chemistry and Physics; B.A., Rutgers, The State University; M.S., Ph.D., Seton Hall University*
Darlene Yoseloff, *Director, Office of School Relations; B.A., Hunter College*
Theresa Young, *Instructor, Biology; B.A., B.S., George Mason University; M.S., University of Oklahoma*
Steven Zale, *Associate Professor, Computer Science; B.A., M.S., Kean University; Ph.D., Nova Southeastern University*
Daniel Zimmerman, *Associate Professor, Chair, English; B.A., M.A., Ph.D., The State University of New York at Buffalo*

EMERITI

John Bakum, *Professor, President Emeritus; A.A.S., Orange County Community College; B.S.E.E., M.S.E.E., New Jersey Institute of Technology; Ed.D., Rutgers, The State University*
Sudesh Bhatia, *Professor Emeritus, Computer Science; B.A., J&K University; M.A., Delhi University, India*
Elaine A. Buscemi, *Professor Emerita, Dental Auxiliaries Education; B.S., Columbia University; Ed.M., Rutgers, The State University*
Frank M. Chambers, *President Emeritus; B.S., Saint Lawrence University; M.S.Ed., Cornell University; Ed.D., University of Florida*
John Dineen, *Professor Emeritus; Computer Science; B.S.E.E., Northeastern University*
Margarete K.M. Driver, *Professor Emerita, Modern Languages; B.A., Ruprecht-Karls-Universität Heidelberg, Germany; M.A., New York University; M.A., Ph.D., Rutgers, The State University*
Virginia Filardi, *Professor Emerita, Chemistry; B.A., College of New Rochelle; M.S., Ph.D., Fordham University*
Robert M. Fishco, *Professor Emeritus, Vice President, Academic and Student Affairs; B.A., The College of New Jersey; M.A., New York University; Ed.D., Temple University*
Patricia A. Graber, *Professor Emerita, Business Administration and Management; B.A., Montclair State University; M.A., Rider University*
Barbara L. Greene, *Professor Emerita, Dean, Academic Services and Urban Centers; A.B., M.Ed., Rutgers, The State University*
Eric Hepburn, *Professor Emeritus, Modern Languages; B.A., Atlantic Union College; M.A., Professional Diploma, Columbia University*
Marilyn Keener, *Professor Emerita, Health Technologies; B.S., Millikin University; M.S., Boston University; Ed.D., Columbia University*
Warren D. Kelemen, *Professor Emeritus, Vice President, Advancement and Planning; A.B., Princeton University; M.S., University of Pennsylvania*
Yetta Levine, *Professor Emerita, Education Technology; B.A., M.A., Kean University*
Charles F. Montross, *Professor Emeritus, Computer Science; B.A., New York University; B.Ch.E., The Cooper Union; M.Ch.E., Polytechnic Institute of Brooklyn*
Karoly Nagy, *Professor Emeritus, History and Social Behavior; B.A., Rutgers, The State University; M.A., Ph.D., New School for Social Research*
Carol Pam, *Professor Emeritus, Office Administration; B.A., Hunter College; M.A., Rider University*
Irene Figarotta Pearse, *Professor Emerita, History and Social Behavior; A.B., Douglass College, Rutgers, The State University; M.A., University of California at Berkeley; M.A., Rutgers, The State University*
Norman Poppel, *Professor Emeritus, Psychology and Education; B.A., M.S., City College of New York*
Thomas J. Regan, *Professor Emeritus, Accounting and Legal Studies; B.S., State Teacher's College at Salem; M.A., Columbia University*

Frank J. Rubino, *Professor Emeritus, Mechanical and Civil/Construction Engineering Technology; A.A.S., Academy of Aeronautics; B.S., M.E., The Cooper Union, School of Engineering; P.E., New Jersey*
Francis A. Spano, *Professor Emeritus, Chemistry; B.S., City College of New York; Ph.D., Fordham University*
David H. Tyrrell, *Professor Emeritus, Physics/Electrical Engineering Technology; B.S.E.E., M.S.E.E., Purdue University*
G. Nicholas Venezia, *Chairman of the Board Emeritus*
William R. Walsh, Jr., *Chairman of the Board Emeritus*
Diane Z. Wilhelm, *Professor Emerita, History and Social Behavior; A.B., Washington University; M.A., New York University; Ph.D., New School for Social Research*
Harmon Zacune, *Professor Emeritus, Dental Auxiliaries Education; D.D.S., University of Buffalo*
Robert Zifchak, *Professor Emeritus, Health, Physical Education, Recreation and Dance; B.S., Queens College; M.A., New York University*

SPONSORED PROGRAM PROFESSIONAL STAFF

At Least Two Years of Service Through Spring 2008
Olga Chaban, *Coordinator, Professional and Community Programs; Ed.M., Rutgers, The State University*
Basaveswara Rao Gudapati, *Learning Specialist, Counseling and Career Services; M.A., University of Saugar, India*
Lori R. Johnson, *Coordinator, Minority Student Affairs; A.A., Union County College; B.A., M.P.A., Kean College*
Cheryl B. Kolber, *Specialist, Counseling and Career Services*
Ruth Lapidow, *Coordinator, Job Placement Services, Career Training Center; B.S., Springfield College; M.S., New Jersey City University*
Arthur Okwemba, *Business Technology Coordinator; B.S., New Jersey City University*
Pratima Sharma, *Trainer, Career Training Center; B.S., Delhi University*
Linda Urbach, *Project Coordinator for Job Search; B.A., State University of New York, Plattsburgh*
Mary Jane Warshaw, *Professional Tutor, Project Connections; B.A., Seton Hall University*
Claudia Yurecko, *Coordinator, Project SPAN; B.A., Rutgers, The State University; M.A., Kean University*

ADJUNCT FACULTY

(Including Limited-Duration Full-Time Appointments and Coaches)
At Least Four Semesters of Service Through Spring 2008
Tanveer Abidi, *M.A., State University of New York at Buffalo*
Nancy Abrams, *B.A., Rutgers, The State University*
Lucy Achenbach, *A.A.S., Middlesex County College; B.S., Rutgers, The State University; M.A., Seton Hall University*
Louis W. Adickes, *A.B., Rutgers, The State University; M.A., Rider College*
Myriam Alami, *B.S., M.A., University of Oregon*
Maryellen Aleksza, *A.S., A.A.S., Middlesex County College; B.S., Milwaukee School of Engineering; M.S., New Jersey Institute of Technology*
Tara-Lea Aleszcyk, *B.A., Rutgers, The State University; M.A., Kean University*
Nathaniel C. Anderson, *B.S., Kean University*
Julio Arboleda, *B.A., Rutgers, The State University*
Tara Auciello, *B.A., Duke University; J.D., Boston College*
James August, *B.S., M.S., State University of New York*
Andrea Bachmann, *B.S., The College of New Jersey*
Henry Ballard, *B.A., Bloomfield College; M.A., New Jersey City University*
Sharon Bancroft, *B.S., Rutgers, The State University*
Mark Baird, *A.A., Ocean County College; B.A., The Richard Stockton College of New Jersey*
Regina Baranski, *B.A., Kean University; M.A., University of Hawaii*
Lisa Barata, *B.A., University of Delaware; J.D., Widener University School of Law*
Christine M. Barton, *A.A.S., College of Technology at Farmingdale, State University of New York; B.S., Thomas Edison State College*
Michael Beltranena, *A.A., Rider University; B.S., Rutgers, The State University; M.A., John Jay College of Criminal Justice*
Edward Berberich, *B.S., University of Central Florida; M.S., Stevens Institute of Technology*
Michael Bernard, *M.S., Ph.D., Rutgers, The State University*
Leonard Berness, *B.S., M.S., Long Island University*
Yvonne Beyer, *B.S., Ed.M., Trenton State College*
James Biedzynski, *A.A., William Rainey Harper College; B.A., Northern Illinois University; M.A., Ph.D., Ohio University*
Myrtle Blakey, *B.S., Montclair State University; M.L.S., Rutgers, The State University; M.S., University of Medicine and Dentistry of New Jersey*
Alan Blander, *Ed.M., Rutgers, The State University of New Jersey*
Kim Bongiorno, *A.A.S., Middlesex County College; B.S., Rutgers, The State University*
John Bonura, *B.A., Caldwell College; M.A., Seton Hall University*
Irene Brennan, *A.A., B.S., St. Peter's College; M.S., New Jersey Institute of Technology; M.T.M., Stevens Institute of Technology*
Arlene Britt, *B.A., Glassboro State College; M.A., Rutgers, The State University*
Shannon Brower, *B.A., St. Joseph's University; M.A., New York University*
Louis Brown, *B.S., Northeastern University; M.S., Purdue University*
Deborah Bryant, *B.A., Trinity University; Ph.D., Baylor University*
Ralph Burin, *B.F.A., University of Chicago; M.A., Northern Illinois University*
Lee Anne Burke, *B.A., M.A., Jersey City State College*
Lillian Burke, *B.A., Pace University; M.A., New York University*
Sally Cafasso, *B.A., Kean University; M.A., Rutgers, The State University*
Alfred Calimeri, *B.A., Rutgers, The State University*
Dominick Cangiano, *B.A., Manhattanville College; Ph.D., City University of New York*
David Cantos, *B.A., M.A., Brooklyn College*
Rose Capule, *B.S., University of Nueva Careres; M.A., Central Luzon Polytechnic College; Ph.D., Wesleyan University; De La Salle University, Philippines*
James Cardillo, *B.S., New York Institute of Technology; J.D., Brooklyn Law School*
Antonio Cardona, *B.A., Mount Union College; M.A., The College of New Jersey; M.P.A., Rutgers, The State University*
Frank Casey, *B.A., Providence College; M.B.A., Pace University*
Francis Cashman, *M.A., Rutgers, The State University*
Clare Castaldo, *M.A., Seton Hall University*
Michael Cerchio, *B.S., Long Island University; M.S., Seton Hall University*
Farrukh Chaudhry, *B.S., D.C., National College of Chiropractic, Canada*
Joseph Chizmarik, *B.S., M.S., Stevens Institute of Technology*
Phyllis Cirbus, *A.A., Alphonsus Jr. College; B.A., M.A., Kean University*
Patricia Collins, *M.A., Kean University*
Catherine Coogan, *B.S., M.S., Fordham University*
Bernard Cooper, *A.A.S., New York City College of Technology; B.S., M.S., Brooklyn College*
Kathleen Cooper, *A.A., Middlesex County College; B.A., Rutgers, The State University*

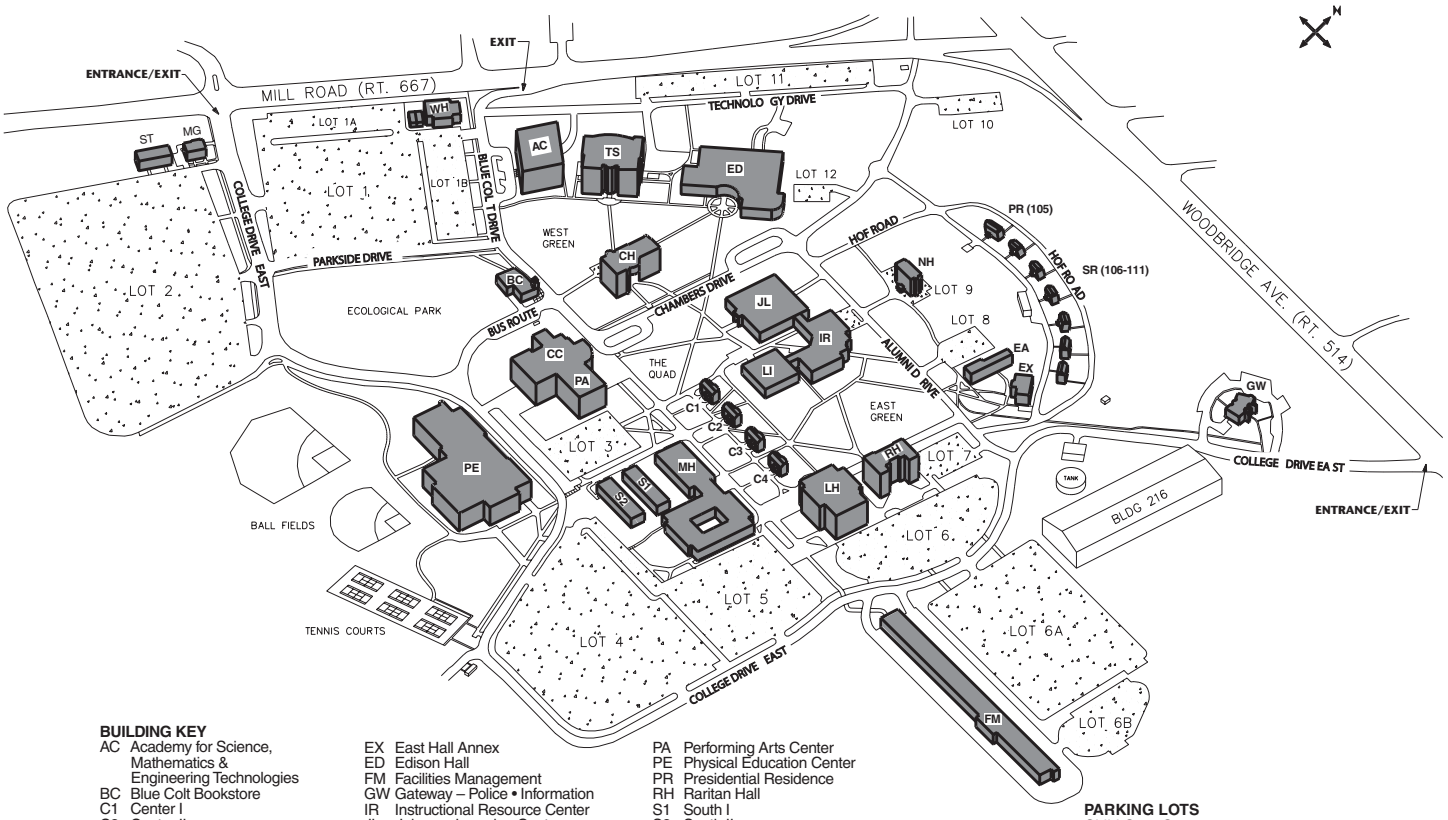
Janet Coppolino, *B.A., M.A., St. Joseph's University*
Matthew Corshu, *M.A., University of Wisconsin*
Mark Corso, *B.S., Rutgers, The State University; M.Ed., Newark State College; Ph.D., Fordham University*
Thomas Crane, *B.A., Rutgers, The State University; M.A., Seton Hall University*
Edward Cullen, *B.A., Kean University; M.A., William Paterson University*
Adrienne D'Angelo, *B.A., M.S., College of Staten Island*
Gary Damiani, *B.S., St. Peter's College; M.A., Stevens Institute of Technology*
Gautami Das, *M.A., New York University*
Elliot DeBella, *B.A., Newark State College; M.A., Kean University; Ed.D., St. John's University*
Dorothy DeFoe, *A.A., Forsyth School of Dental Hygiene; B.S., Boston University; M.S., University of Michigan*
Parviz Dehghani, *M.A., Ph.D., Temple University*
Joyce Delpopolo, *M.A., Seton Hall University*
Michael Denes, *B.S., Rider University; M.B.A., Seton Hall University*
Thomas Derowitsch, *B.S., Mount Saint Mary's College*
Gwendolyn DeRupo, *M.S., University of Florida*
Margaret Dever, *B.A., College of St. Elizabeth; M.S., Rutgers, The State University*
Robert Dingle, *B.A., Albright College; M.A., New Jersey City University*
Marlene Director, *B.A., City of New York; M.A., San Jose State College*
Suzanne Dorflaufer, *B.S., Monmouth University; M.A., Kean University*
James Dougherty, *M.A., New Jersey City University*
Runae Edwards-Wilson, *Ph.D., The State University of New York at Buffalo*
John Evancho, *B.S., College of New Jersey*
Morton Evans, *B.S., M.S., Murray State University*
Philip A. Fabiano, *B.S., St. Peter's College; M.S., New Jersey Institute of Technology*
Rachel Faillace, *M.F.A., Rutgers, The State University*
Jennifer Farber, *Ph.D., University of Connecticut*
William Fabiano, *B.A., St. John's University; M.A., Long Island University*
Maria Farina, *B.A., M.A., Ph.D., Rutgers, The State University*
Robert Fenkel, *A.S., B.S., Rutgers, The State University; M.A., John Jay College of Criminal Justice*
Mildred Fernandez, *M.A., Kean University*
Michael Ferner, *M.S., New Jersey Institute of Technology*
William Filerino, *B.S., Villanova University; M.S., New York University*
Arlene Flynn, *B.A., Hunter College, City University of New York; M.S., Long Island University*
Thomas Fogu, *M.A., Rutgers, The State University*
Margaret Fontana, *B.A., Montclair State University*
Carol Fox, *M.S., Long Island University*
Darryl Foyuth, *B.S., Drexel University*
Andrea Freiwald, *B.A., Montclair State University*
Gerald Friedman, *B.A., Brooklyn College*
Linda Funiciello, *M.A., Brooklyn College*
Jonathan Gabel, *B.A., Clarkton College; M.F.A., Rutgers, The State University*
Robin Gadsden, *B.A., Howard University; M.A., Seton Hall University*
Samuel Gallant, *B.A., Brooklyn College; J.D., Columbia University*
Tamara Gallant, *B.A., Williams College; M.P.H., University of North Carolina*
Leonard Gallo, *B.A., Marist College; M.A., Rutgers, The State University*
Marcellino Garcia, *M.S., The City College of New York*
Gail Gaspar, *B.A., Fairleigh Dickinson University; M.A., William Paterson University*
Ghartey Christian, *B.S., College of Staten Island; M.S., City College of New York*
Azam Ghorashi, *B.S., M.A., Tehran University, Iran*
Christina Glacobbe-Nuzzolo, *B.S., St. John's University; M.S., Fordham University*
Denise Glynn, *B.S., Montclair State University*
Dennis Gold, *B.A., The College of New Jersey; M.B.A., Fairleigh Dickinson University*
David A. Goldberg, *A.B., M.A., Rutgers, The State University*
Donna Goldberg, *B.A., Montclair State University; M.A., Syracuse University*
Marsha Goldberg, *B.F.A., Boston University; M.F.A., Rutgers, The State University*
Theodore Goldfarb, *B.S., Thomas A. Edison College*
Francisco Gomez, *B.A., Rutgers, The State University*
Robert Goodwin, *B.A., Rutgers, The State University; J.D., Tulane University*
Cesar Grau, *B.A., Montemorelos University, Mexico*
S. Donald Groninger, *B.A., Juniata College; M.A., Fairleigh Dickinson University; Ed.D., Nova Southeastern University*
Venkatachala Gundanna, *B.S., Karnataka University, India; M.S., Stevens Institute of Technology*
Adnan Haddad, *M.S., West Coast University*
Robert Hanes, *M.S., Villanova University*
Eugene Hannigan, *B.S., Rutgers, The State University; M.A., Seton Hall University*
Gregory Harkins, *B.S., West Chester University; M.A.S., Fairleigh Dickinson University*
Jenny Harko, *B.A., M.A., Babes-Bolyai University of Romania*
Barbara Harmon, *B.A., The College of New Jersey; M.A., Temple University*
Tana Harvey, *B.S., Seton Hall University; M.A., Hunter College, City University of New York*
Candus Hedberg, *B.M., University of Kansas; M.A., College of New Jersey*
Althea Heyward, *B.A., M.A., The City College of New York*
Diane Hollender, *B.A., Brooklyn College; M.A., Rutgers, The State University*
Grace Hsu, *M.S., University of Pennsylvania*
Colin Hueston, *B.S., Rutgers, The State University*
Karen Hunte, *B.A., Mercy College; M.B.A., Long Island University*
Louis Ianuale, *B.A., New Jersey City University; M.A., Seton Hall University*
Margaret Ingate, *M.S., Ph.D., Rutgers, The State University*
Steven Insolera, *M.F.A., Mason Gross School of the Arts, Rutgers, The State University*
Chantal Iyer, *B.A., M.A., University des Sciences Humaines de Strasbourg, France*
Larry Jacobs, *B.A., C.W. Post College; M.S., The State University of New York*
Rose Jean-Baptiste, *M.P.H., Hunter College, City University of New York*
Dorothy Jennings, *A.A.S., Middlesex County College; B.S., Rutgers, The State University*
Dennis Johnson, *B.A., M.A., Fairleigh Dickinson University*
Laurell Johnson, *B.A., Rutgers, The State University; M.S., Ed.D., Teachers College, Columbia University*
Opehlia Johnson, *B.A., University of North Carolina, Chapel Hill; M.F.A., Queens University of Charlotte*
Kim Joho, *B.S., M.S., Wagner College; MT(ASCP)SM*
James Jones, *B.B.A., Pace College of New York; M.B.A., Pace University*
David Jordan, *M.A., Ph.D., University of Oregon*
Gina Kabak, *A.A., Union County College; B.S., Fairleigh Dickinson University; M.S.M., Thomas Edison State College*
Ronald Kanterman, *B.A., M.S., John Jay College of Criminal Justice*

Robert Kaplan, *B.S., New York University; M.A., Kean University*
Steve Kirbos
Marylou Kjelle, *A.A., Middlesex County College; B.S., M.S., Rutgers, The State University*
Frayda Kleiman, *A.A.S., Middlesex County College; B.S., Fairleigh Dickinson University; M.A., Kean University*
Donald Kluizenaar, *B.S., State University of New York; M.S.T., Rutgers, The State University*
Michael Kost, *B.A., East Stroudsburg University; M.A., Montclair State University*
Andrei Kouranov, *Ph.D., Rutgers, The State University*
Gary Kulhanjian, *B.S., East Tennessee State University; M.A., William Paterson University; Ed.S., Rutgers, The State University*
Susan Labega, *B.A., M.A., Kean University*
Henry Lam, *A.A.S., Middlesex County College; B.A., Western Washington University; B.S., New Jersey Institute of Technology*
C. Merry LeBlond, *B.S., M.S., Columbia University*
Barbara Leveene, *B.A., Brooklyn College; M.S., Long Island University*
Arthur Levy, *B.A., Brooklyn College*
John Liefert, *A.A.S., Middlesex County College; B.S., Monmouth University*
Marc Lipman, *B.S.E.E., Rutgers, The State University; M.S., Stevens Institute of Technology*
Stanley Lipper, *B.S., New York Institute of Technology; M.B.A., St. John's University*
Jacqueline Littlejohn, *B.S., M.A., Kean University*
Margot Lowell, *B.S., State John's University; M.S., College of Staten Island*
Harold Luithle, *A.A., Middlesex County College; A.S., Brookdale Community College; B.A., Kean University; M.S., Georgian Court College*
Nancy Luyando, *B.S., Fordham University*
Ira Madan, *B.A., Queens College; M.S., College of Staten Island*
Noreen Mahoney, *M.S.W., Rutgers, The State University*
Robert Mahoney, *B.S., Kean University; M.S., Stevens Institute of Technology*
Caroline Marchitto, *B.A., Drew University; J.D., Seton Hall University*
William Mariano, *B.S., M.S., Fordham University*
Jacquelyn Martinez, *B.A., Rowan University; M.A., Nova Southwestern University*
Anton Massopust, *B.S., Villanova University; M.S., Monmouth University*
John Masters, *B.A., St. Peter's University; M.A., New Jersey City University*
Denise May, *M.A., William Paterson University*
Linda Maya, *M.A., Kean University*
Denise McSorley, *A.A.S., Middlesex County College; B.S., Rutgers, The State University*
Kenneth Miele, *B.A., Seton Hall University; M.A., St. John's University*
James Mihopulos, *B.A., The Richard Stockton State College; M.A., Monmouth University*
Marilyn Miller, *B.A., Fairfield University; M.A., Kean University*
Kathleen Miller, *B.A., M.A., Seton Hall University*
Kathy Mills, *B.A., M.A., Seton Hall University*
Johanna Minucci, *B.A., Lady Cliff College; M.A., College of Staten Island; M.S., Kean University*
Paul Moody, *M.S., Lamar University*
Traci Moore, *B.A., Muhlenberg College; M.S., Springfield College*
Michael Murphy, *B.A., Saint Leo University; M.S., Stevens Institute of Technology*
Andrew Nadler, *B.A., Albright College; M.A., Fairleigh Dickinson University*
Lakshmi Nagarajan-Iyer, *B.S., Bombay University, India; M.S., M.B.A., University of South Florida*
Gene Nasser, *B.A., Rutgers, The State University; M.A., Monmouth University*
Harold Neutuch, *B.S., New York University; M.B.A., Baruch College, the City University of New York*
Marjorie Nevens, *B.A., Hunter College, City University of New York; M.S., Brooklyn College*
Marisa Noe, *B.A., Hunter College*
Susan O'Brien, *B.A., Princeton University*
Lucille O'Reilly, *B.A., Rutgers, The State University; Ph.D., University of Medicine and Dentistry of New Jersey*
Faith Occhiogrosso, *B.A., Brooklyn College*
Wayne Otlowski, *B.A., Newark State College; M.A., Kean University*
Steven D. Owlett, *B.A., Kings College, M.S., Golden Gate University*
David Papi, *M.A., Rider College*
Winston Park, *B.S., Pratt Institute; M.S., Polytechnic University*
Christina Pastor, *D.C., New York Chiropractic College*
Dhansukh Patel, *B.S.E., University of Alabama at Huntsville*
Enzo Paterno, *B.S., M.S., Polytechnic University*
Howard Pearlson, *B.A., M.A., Ph.D., The State University of New York at Buffalo*
Guy Peluso, *M.A., J.D., Rutgers, The State University*
Raymond Perez, *B.S., M.Ed., The College of New Jersey*
Joseph Perry, *B.S., M.S., Fairleigh Dickinson University*
Michael Perry, *M.S., Rutgers, The State University*
Mary Petti, *B.S., Western Reserve University; M.S., University of Pittsburgh*
Otto Picard, *B.S., Ed.M., Ed.Sp., Rutgers, The State University*
Patricia Pickering, *B.A., Rutgers, The State University*
Dawn Piper, *M.S., Kean University; M.A.T., Montclair State University*
Richard Plant, *B.A., M.A., Montclair State University*
Douglas Platt, *B.S., The College of New Jersey*
Dennis Pope, *B.A., M.A., Ph.D., Rutgers, The State University*
Celeste Pouncy, *M.S., Columbia University*
Darin Portnoy, *B.S., Rutgers, The State University; J.D., Thomas M. Cooley Law School*
Barry Prag, *B.A., Rutgers, The State University*
Steve Prosser, *M.A., Montclair State University; M.A., Fairleigh Dickinson University; Ph.D., The Union Institute*
LaShawn Pruitt, *B.A., Seton Hall University; M.A., Monmouth University*
Sudesh Punj, *B.S., M.S., Panjab University; B.Ed., Kanpur University*
Marilyn Rabinowitz, *B.A., M.A., Newark State College*
Ligita Rafaels, *B.A., Radcliffe College; M.A., Yale University*
David Randolph, *B.A., Whitworth College; M.A., Seton Hall University*
Natalie Rapacki, *B.A., M.A., Kean University*
John Reitmann, *B.A., Marist College; M.S., North Dakota State University*
Susan Richman, *B.A., The College of New Jersey; M.Ed., Rutgers, The State University*
John Riordan, *B.E., Stevens Institute of Technology; M.S.E.E., Drexel University; M.B.A., Rutgers, The State University*
Barbara Rivera, *B.A., St. John's University; J.D., St. John's University School of Law*
Susan Rivera, *B.A., M.A., Kean University*
Richard Rizzo, *A.S., College of Staten Island; B.A., Saint Peter's College; M.A., Rutgers, The State University*
Allan Robinson, *B.M., Westminister Choir College; M.M., Rutgers University*
Leo Rose, *B.A., Kean University; Ed.M., Trenton State University*
Margaret Rosen, *B.S., The City College of New York*
Zofia Rosenberg, *M.A., Fairleigh Dickinson University*
Catherine Roth, *M.S., Southern Illinois University*

Lipika RoyChowdhury, *B.S., Ph.D., Kanpur University*
Sheri-Rose Rubin, *B.A., University of Hartford; J.D., Widener University*
Stephen J. Rubino, *A.S., Middlesex County College, B.S., Montclair State University*
Edward Ruhno, *B.S., Widener College*
Steven Safron, *B.A., Queens College; M.A., The State University of New York at Buffalo*
Brent Sandene, *Ed.M., Indiana University; Ph.D., University of Michigan*
Peter Santarpia, *B.S., Ph.D., State University of New York at Stony Brook*
Fakhry Saymeh, *M.A., New York University; M.S., The American University*
Peter Schroeck, *M.Phil., Ph.D., Rutgers, The State University*
Rebecca Sheehy, *B.A., State University of New York at Stony Brook; Ph.D., The State University of New York at Buffalo*
Richard Sher, *M.S., University of Pennsylvania*
Thomas Sherman, *B.S., St. John's University*
Matthew Shoban, *B.A., M.A., Adams State College*
Robert A. Sicora, *B.S., The Pennsylvania State University, M.B.A., Temple University*
Shay Maria Silvestri, *M.S., Rutgers, The State University*
Karen Simmons, *B.S., Ramapo College; M.A., Kean University*
Yvonne Singer, *A.A., Brookdale County College; B.A., Monmouth University; M.S., Walden University*
Jeffery Spear, *B.A., Arizona State University; M.A., Rutgers, The State University*
John Speranza, *B.A., Ramapo College; M.A., Rutgers, The State University*
Deborah Stapenski, *B.S., Trenton State College; M.A., Rider University*
Alan Stern, *B.S., Rutgers, The State University; D.C., New York Chiropractic College*
Robert Stetler, *B.A., Lehman College, the City University of New York*
Joseph Sullivan, *B.S., M.S., New Jersey Institute of Technology*
Catherine Sweeting, *M.A., Queens College*
Terri Taggart, *B.A., M.A., Rowan University*
Robert Terelle, *B.A., Catholic University of America; M.S., Richmond College; M.S., Hunter College*
Lynn Tobin, *A.A.S., Seneca College; B.A., University of Toronto; M.A., Seton Hall University*
Eileen Toplansky, *M.A., Herbert H. Lehman College*
Anne Topping, *B.S., M.S., Polytechnic Institute of New York*
Richard Trimarco, *B.A., Rutgers, The State University; M.A., New York University*
Claudia Tyska, *B.A., Douglass College, Rutgers, The State University; M.B.A., Ph.D., Rutgers, The State University*
Dawn Valovcin, *B.S., Ithaca College; M.H.S.A., Antioch University*
Norman Van Houten, *A.A.S., County College of Morris; B.S., Jersey City State College; M.S., New Jersey Institute of Technology; Ph.D., Columbia Pacific University*
Rishi Verma, *B.A., JRN Medical College, India; Doc. of Med. and Surgery, University of Rajasthan*
Steve Vogel, *Ed.M., Rutgers, The State University*
Doreen Vorce, *B.A., M.S., University of Colorado*
Laura Walsh, *B.A., Richard Stockton College of New Jersey*
Diane Weeks, *B.S., M.S., Hunter College, City University of New York*
Powell Whalen, *B.S., Rutgers, The State University; M.S., New Mexico State University*
Joseph Whelan, *B.A., Rutgers, The State University; M.A., Kean University*
Audrey Williamson, *M.Div., New Brunswick Theological Seminary*
Jeffrey A. Wilson, *A.B., M.B.A., Rutgers, The State University*
John Wolf, *A.B., Vassar College; J.D., Emory University*
Sara Wolfe, *B.F.A., Colorado State University; M.F.A., Mason Gross School of the Arts, Rutgers, The State University*
Benedict Yennella, *B.A., Niagra University; M.S., Wagner College; M.S., Hunter College, City University of New York*
Rhonda Zampetti, *B.S., Ithica College; Ed.M., Rutgers, The State University*
Pedro Zayas, *M.A., Ed.M., Seton Hall University*

Index

Campus Map and Directions



BUILDING KEY

AC Academy for Science, Mathematics & Engineering Technologies
BC Blue Colt Bookstore
C1 Center I
C2 Center II
C3 Center III
C4 Center IV
CH Chambers Hall
CC College Center
EA East Hall
EX East Hall Annex
ED Edison Hall
FM Facilities Management
GW Gateway – Police • Information
IR Instructional Resource Center
JL Johnson Learning Center
LH L'Hommedieu Hall
LI Library
MG Mill Gate
MH Main Hall
NH North Hall
PA Performing Arts Center
PE Physical Education Center
PR Presidential Residence
RH Raritan Hall
S1 South I
S2 South II
SR Staff Residence
ST Studio Theater
TS Technical Services Center
WH West Hall

PARKING LOTS

Child Care Center – 12
Disabled – All Lots
Faculty/Staff – 1B, 2, 5, 6B, 7, 8, 9, 10, 11
Students – 1, 1A, 2, 4, 6, 6A
Visitors – 1, 3

EDISON/MAIN CAMPUS 2600 Woodbridge Avenue, Edison, N.J. 08818 Tel: 732.548.6000

U.S. Highway 1 (North)

Use the Fords exit for County Highway Route 514 East (first exit after Morris Goodkind Bridge). On Route 514 East (Woodbridge Avenue), proceed approximately two miles and turn right at 5th traffic light onto College Drive East: College main entrance.

U.S. Highway 1 (South - Edison)

Take Bonhamtown exit for County Highway Route 531 South. Proceed to traffic light, turn right onto County Highway Route 514 West (Woodbridge Avenue). Proceed to 3rd traffic light and turn left onto College Drive East: College main entrance.

Garden State Parkway (North)

Use Exit 127 and follow signs for Interstate 287 North. Proceed for approximately one half mile on 287 (stay on right side), follow signs to turn onto County Highway Route 514 West (Woodbridge Avenue.) Proceed approximately two- and one-half miles to the 6th traffic light and turn left onto College Drive East: College main entrance.

Garden State Parkway (South)

Take Exit 130 to U.S. Highway 1 South. Follow directions for No. 2 above.

N.J. Turnpike (North/South)

Take Exit 10. Follow signs to Highland Park to County Highway Route 514 West (Woodbridge Avenue). Follow Woodbridge Avenue to 6th traffic light and turn left onto College Drive East: College main entrance.

Interstate Highway 287 (North)

Exit at County Highway Route 514 West (Woodbridge Avenue) and follow directions for No. 3 above.

Interstate Highway 287 (South)

Exit at 1-B onto County Highway Route 531 and follow directions for No. 2 above.

State Highway 35 (North/South - Woodbridge Township)

From State Highway 35 North, turn left or from South turn right onto Main Street which becomes Woodbridge Avenue in Edison. Proceed to the 10th traffic light and turn left onto College Drive East: College main entrance.

New Brunswick Center Directions

NEW BRUNSWICK CENTER 140 New Street, New Brunswick, NJ 08901 Tel: 732.745.8866

U.S. Highway 1 (North)
Exit Route 1 at New Brunswick sign. Follow Route 18 North through 2 lights. Take first exit on right onto New Street. Follow off ramp around and through 3 lights.

Route 27 (North)
Follow Route 27 towards New Brunswick. Turn right onto Joyce Kilmer Avenue. After 3 lights, turn left onto New Street.

Route 27 (south from Highland Park)
Follow Route 27 south (Albany Street). Turn left at light onto Neilson Street. Turn right at light onto New Street. Continue through 2 lights, Center is on the left.

N.J. Turnpike (South)
Take Exit 9 of the New Jersey Turnpike – New Brunswick. Take Route 18 after New Jersey Turnpike exit through 2 lights. Take first exit on right onto New Street. Follow off ramp around and through 3 lights.

Route 18 (from south of New Brunswick):
Take Route 18 north past the New Jersey Turnpike entrance and Route 1 interchange. Continue north continue past 3 lights. Exit right to New Street.

Route 18 (from north of New Brunswick):
Take Route 18 South to New Brunswick exit. Follow exit signs to George Street. After 6 lights, turn left onto New Street.

Interstate Highway 287 (South - Easton Avenue)
Take Easton Avenue/New Brunswick Exit off Route 287. Follow Easton Avenue past St. Peter's Hospital. Turn right at intersection onto Albany Street (at the train station). Turn left onto Joyce Kilmer Avenue. Proceed 3 blocks to New Street.

Perth Amboy Center Directions

PERTH AMBOY CENTER 60 Washington Street, Perth Amboy, NJ 08862 Tel: 732.324.0700

Garden State Parkway (South)

Take exit 129. Follow signs to Perth Amboy and take New Brunswick Avenue exit. At stop sign turn left. After 3 traffic lights, bear left at fork onto Washington Street. Continue on Washington St. and go through 2 traffic lights. The Center is at the end of the second block to your left.

Garden State Parkway (North)

Take exit 125. Make a right at end of exit ramp. Make a left onto circle following Rt.35 North signs. Go across Victory Bridge/Rt.35 North. At traffic light make a right onto Smith Street. At the 7th traffic light, turn left onto High Street. Go through 1 traffic light. The Center is on the fifth block to your left.

N.J. Turnpike (North/South)

Take exit 10. Follow signs to 440 North/287 South/Perth Amboy. Then follow directions under Route 1 & I-287.

U.S. Highway 1/Interstate Highway 287

Take 440 North/287 South. Turn right into ramp at State Street exit (last exit in New Jersey). Take ramp left onto CR-611/State Street and merge onto State Street. At the 4th traffic light, make a left onto Washington Street. The Center is at the end of the second block to your left.

State Highway 35

At Raritan Bay Medical Center, turn East onto New Brunswick Ave. (toward Hospital). After 2 traffic lights, bear left at fork onto Washington Street. Continue on Washington St. and go through 2 traffic lights. The Center is at the end of the second block to your left.

Telephone Directory of MCC Offices

Department Name	Ext.
Acad. Adv. Ctr./Open College	732-906-2596
Academic and Student Affairs	732-906-2515
Accounting and Legal Studies	732-906-2576
Accounts Payable	732-906-4682
Adjunct Faculty Center	732-906-7772
Admissions	732-906-4243 x3510
Alumni Affairs	732-906-7732
Biology	732-906-2592
Bookstore	732-906-2539
Bursar/Cashier	732-906-2572
Business Admin. & Mngmt.	732-906-2594
Bus., Computer Sci. & Eng'g.	732-906-2502
Career Training	732-906-4231
Chemistry & Physics	732-906-2587
Child Care	732-906-2542
College Assembly	732-906-4239
Computer Sci. & Info. Technology	732-906-2526
Construction	732-548-6000 x3868
Cooperative Education	732-906-2595
Corporate & Community Edu.	732-906-2556
Counseling & Career Srvs.	732-906-2546
Custodial	732-548-6000 x3868
Dental Auxiliaries	732-906-2536
Edu. Opportunity Fund	732-906-2544
Engineering Technologies	732-906-2584
English	732-906-2591
English as Second Language	732-906-2597
Enrollment Management	732-906-2509
Facilities Engineering	732-906-2611
Facilities Management	732-906-2568
Finance	732-906-2621
Financial Aid	732-548-6000 x3520
Food Service	732-906-2541
Foundation	732-906-2564
Grounds	732-548-6000 x3868
Health & Safety	732-906-2530
History & Social Behavior	732-906-2503
Hlth, Phys Ed/Rec & Dance	732-906-2558
Holocaust	732-906-4663
Hotel, Rest. & Institution Mgt.	732-906-2538
Human Resources	732-906-2522
Information Technology	732-906-2525
Institute	732-906-4681
IT Ctr., WKFC Excellence	732-906-2588
Library	732-906-2561

Department Name	Ext.
Main College No.	732-548-6000
Maintenance	732-906-2567
Marketing and Public Info.	732-906-2566
Mathematics	732-906-2585
Mechanics and Electricians	732-548-6000 x3868
Media Services	732-906-2527
Medical Lab	732-906-2581
Minority Student Affairs	732-906-2532
Modern Languages	732-906-2529
New Brunswick Center	732-745-8866
Nurse	732-906-2530
Nursing Department	732-906-4660
Payroll	732-548-6000 x3120
Perth Amboy Center	732-324-0700
Planning and Development	732-906-2602
Police	732-906-2500 x3500
President's Office	732-906-2517
Printing & Communications	732-906-2537 x4255
Prof'l. & Community Programs	732-906-7740
Project Connections	732-906-2507
Project SPAN	732-906-2553
Psycho/Social Rehab	732-906-4177
Psychology/Education	732-906-2590
Purchasing	732-548-6000 x3518
Quo Vadis	732-548-6000 x3443
Radiography	732-906-2583
Receiving	732-906-2534
Registrar	732-548-6000 x3523
Research, Office of	732-906-2622
Respiratory Care	973-972-5503
Retail Services Corp.	732-906-2539
School Relations, Office of	732-906-2554
Sci, Math & Health Tech.	732-906-2533
Social Sciences & Humanities	732-906-2528
Student Activities	732-906-2569
Student Development	732-906-7713
Telecommunications	732-906-4666
Testing	732-906-2508
Tutoring	732-906-2631
Visual, Performing, and Media Arts	732-906-2589
Warehouse	732-906-2534

Middlesex County College
puts learning first and
measures its success only
by the success of its students.

All members of the College community
contribute to student success.

WWW.MIDDLESEXCC.EDU

MIDDLESEX
COUNTY COLLEGE

2600 Woodbridge Avenue
P.O. Box 3050
Edison, New Jersey 08818-3050
732.548.6000