## 2000-2001



www.bergen.cc.nj.us


Bergen Community College, 400 Paramus Road, Paramus, New Jersey 07652-1595 (201) 447-7100 (201) 447-7845 (TTY)

The College reserves the right to change any provisions contained in this publication without prior notice. Students are responsible for the information contained in this catalog. Failure to read this catalog does not excuse students from the requirements and regulations contained herein.

NONDISCRIM INATION POLICY: It is the policy of Bergen Community College to provide access to educational programs, services, and benefits to all students, without regard to religion, race, color, national origin, ancestry, age, sexual orientation, marital status, sex, disability, or veteran status.
The college complies with Title VII of the Civil Rights Acts of 1964 and 1990, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Older Americans Act of 1975, and the Americans with Disabilities Act of 1990. Questions about these laws or allegations of violations of students rights should be addressed to: Michael J. Nord, Manager of Training and Compliance Bergen Community College, 400 Paramus Road, Paramus, New Jersey, 07652 (201) 612-5331 (voice), or (201) 447-7845 (TTY) or to the Secretary, Department of Education, Washington, D.C. 20201.

## BERGEN COMMUNITY COLLEGE



## Vision Statement

As the college moves into the twenty-First century, our vision is that of a learning community which values the contributions of all students, staff, faculty, and administrators in order to provide an unparalleled educational experience. We will support an ongoing process of improvement through continued assessment of our vision, values, practices, and mission.

## A Learning Community

We will develop the best possible educational environment, one that promotes learning, collaboration, and shared responsibility. Using proven technological advances and a variety of instructional methods, we will enhance the learning process and maintain high academic standards.

## A Service Community

We pledge to evaluate and improve our services continuously and to communicate more effectively, creating an atmosphere of civility and trust.

## A Diverse Community

We will respect the integrity of all persons and will build an inclusive community, enriched by its diversity.

## A Partnership Community

We will create partnerships with public and private institutions in fulfilling our mission. We will be vital and informed participants in the life of our county, state, and country, responsibly using all public resources in the most efficient manner.

Finally, we welcome future challenges and are willing to take the initiatives necessary to continue to be a leader among community colleges.


The Bergen Community


Dr. J udith K. Winn, our President, is committed to excellence.


Rehearsing for the next play.


Our professors are here to help.

## Get

 involved in intramural sports.


The friends you make at BCC will get you through.


All nations sing.

## Welcomes You!




Go Bull Dogs!

"Why not join a student club?"


Practicing teaching methods in the Early Childhood Center.

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M aster teachers make
the difference.

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# Cenera Information 

Bergen Community College is a comprehensive, publicly supported tw o-year college that is fully accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools. Through its open admissions policy, the college is committed to equal educational opportunities for all.

The instructional programs are designed to prepare students for transfer to four-year colleges and uni versities, or for immediate entry into a career. There are also non-credit courses offered for those seeking personal enric hment or improvement of specific skills.

The college receives funding from the Bergen County Board of Chosen Freeholders and from the State of New J ersey. This support makes it possible to maintain high quality facilities and programs while charging relatively low tuition and fees.


## PHILOSOPHY

Bergen Community College realizes the need to educate citizens to meet the varied demands of a complex society and to prepare people of all ages to undertake the obligation of intelligent citizenship and family life. To this end, the college offers diverse and useful educational experiences.

The variety of programs provides choices and permits flexibility of movement from one curriculum to another, to help the student toward self discovery and personal self-realization. High academic standards are maintained so that the student can transfer to a four-year college or be prepared for immediate employment.

The college is aware of its obligation to the student body and to the community-at-large. It serves as a cultural center by offering frequent lectures, symposia, films and musical and dramatic presentations. The college's proximity to centers of learning and culture enable it to draw fully on a variety of resources.

The primary emphasis of the faculty is on effective instruction of students. Research and writing directed toward these goals is encouraged. Since the general welfare of the students is of paramount importance, emphasis on individual advisement and counseling is fundamental to the college's philosophy. Faculty members are selected not only for their academic qualifications and experience, but also for their interest in maintaining close student-teacher relationships that will enable each student to develop to their full potential. To enhance this aim, advisement and additional counseling services are centralized under the Vice President of Student Services. The faculty stimulates and guides a variety of activities such as student government, clubs, societies, and publications. These activities serve to enrich student experiences and provide the maximum opportunity for demonstrated leadership and responsible participation.

Bergen Community College is committed to meet the challenge of rapidly changing social, political, economic and educational thought and to the principle that higher education for every citizen in our society is a worthy goal.

## HISTORY

The emergence of Bergen Community College as the county's first public two-year institution of higher learning is due to the determined efforts of many people to expand the entire range of state and county educational facilities and services.

On April 3, 1963, the Bergen County Board of Chosen Freeholders passed a resolution appointing a committee of distinguished citizens charged with the responsibility of inquiring into the needs for a two-year county college in Bergen County.

In October 1963, the "County College Study Committee" submitted its final report which stated: "The sub-committee of the county college study committee concludes that there is an immediate need for a two-year public county college in Bergen County."

On April 7, 1965, the Bergen County Board of Chosen Freeholders submitted a petition to the State Board of Education requesting permission to establish a county college in Bergen County and requested the Commissioner of Education to conduct an independent study to determine the higher education needs of Bergen County and the ability of the county to support the proposed college.

The conclusion of this independent study by the New Jersey State Commissioner of Education, described in the September 1965 report to the State Board of Education (pursuant to N.J.S.A. 18:22-101), was essentially that there was sufficient and reliable evidence of the need for a county college in Bergen County and that the county was financially able to construct and operate the proposed college.

On October 20, 1965, the Bergen County Board of Chosen Freeholders passed the necessary resolutions to establish, operate, and provide financial support for a county college in Bergen County.

On November 3, 1965, a public meeting was held, and the Freeholders passed the following resolution: "I move that the Resolution establishing the County College, which was approved on first reading at a meeting of the Board of Chosen Freeholders held on October 20, 1965, be finally adopted, and that the clerk of the Board publish the same in The Record together with statement of its final passage as required by law."

The college was projected to fulfill immediate and longrange educational needs of the citizens of the community. The 167 -acre site of the Orchard Hills County Club in Paramus was selected for the home of Bergen Community College.

Dr. Sidney Silverman was named as the first president of the college and consultant to the Board of Trustees in August, 1966, and assumed the full duties as president on February 1, 1967, until his retirement on June 30, 1977. Dr. Alban E. Reid was a appointed as the second president of Bergen Community College
on July 1, 1977. Dr. Jose Lopez-Isa became the third president on July 1, 1982. Dr. Judith K. Winn became the fourth president on July 1, 1995.

The college registered its first class of day and evening students in September, 1968, in interim buildings designed to accommodate more than 1,300 full-time students. Construction of the Phase I campus was begun in 1969 on the 167-acre site in Paramus.

The Master Plan, approved by the Board of Trustees on July 19, 1967, called for two phases of construction. Phase I, completed in 1973, cost about 21 million dollars and totaled 430,000 square feet. The college has since expanded its facilities to include additional classrooms, laboratories and library space, a theatre arts laboratory, and a student center.

## ACCREDITATIONS

Bergen Community College is fully accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools, 3624 Market Street, Philadelphia, PA 19104.

In addition, four programs are accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP):

- Diagnostic Medical Sonography
- Medical Office Assistant
- Respiratory Therapy
- Surgical Technology

The Nursing Program is approved by the New Jersey State Board of Nursing and is also accredited by the National League for Nursing: The National League for Nursing Accrediting Commission, 350 Hudson Street, New York, NY10014; 212-989-9393.

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

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

The Medical Laboratory Technology Program is accredited by the National Accrediting Agency for Clinical Laboratory Services.

The Physical Therapist Assistant Program is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE) of the American Physical Therapy Association.

The Legal Assistant Program is approved by the American Bar Association.

The Veterinary Technology Program is a candidate for accreditation by the American Veterinary Medical Association.

## TELEPHONE DIRECTORY

## General Offices

Academic/Personal Counseling .447-7211Phone No.
Administrative Services Vice President ..... 447-7104
Admissions ..... 447-7196
Advanced Standing and Transcript Evaluation ..... 447-7204
American Language Program ..... 447-7168
Athletics ..... 447-7182
Bergen Room ..... 447-7222
Bookstore ..... 447-9298
Building \& Grounds ..... 447-7107
Bursar ..... 447-7105
Cafeteria ..... 447-9251
Career Development Center ..... 447-7171
Child Development Center ..... 447-7165
College Work Study Program ..... 447-7462
Collegiate Deaf Education ..... 447-7843
TTY Phone ..... 447-7845
Community and Cultural Affairs ..... 447-7428
Continuing Education ..... 447-7488
Cooperative Education ..... 447-7171
Counseling and Advisement Center ..... 447-7211
Dental Hygiene Clinic ..... 447-7180
East Hall ..... 447-7225
Educational Broadcast Center ..... 447-7437
Educational Opportunity Fund (EOF) ..... 447-7139
English Language Resource Center ..... 447-5292
Evening Office ..... 447-7172
Executive Vice President ..... 447-7205
Foundation ..... 447-7117
Health Services ..... 447-9257
International Student Admissions ..... 447-9294
International Student Counseling ..... 447-7212
Library ..... 447-7131
Philip Ciarco Jr. Learning Center ..... 968-9473
President's Office ..... 447-7237
Public Safety Office ..... 447-9200
Registration and Student Information Services ..... 447-7195
Service Learning ..... 447-7171
Specialized Services for Students with Disabilities ..... 612-5270
Student Activities ..... 447-7215
Student Government ..... 447-7452
Student Newspaper, The Torch ..... 447-3029
Student Services Vice President ..... 447-7491
Switchboard ..... 447-7100
Technology Assisted Learning Lab (TALL) ..... 447-7988
Television Studio ..... 447-7221
Testing and Assessment ..... 447-7202
Transcript Requests ..... 447-7228
Transfer Counseling ..... 447-7212
Tutoring Center ..... 447-7489
Veterans Office ..... 447-7149
Welcome Center ..... 447-7200
Wellness Center ..... 612-5365
Writing Center ..... 447-7136
Academic Divisions Phone No.
Academic Vice President ..... 447-7190
Arts and Humanities ..... 447-7133
Arts \& Communications ..... 447-7143
English ..... 447-7168
Philosophy and Religion ..... 447-7167
World Languages and Cultures ..... 447-7167
Business, Mathematics, and Social Sciences ..... 447-7184
Business ..... 447-7214
Mathematics and Computer Science ..... 447-7975
Social Sciences ..... 447-7468
Science and Health ..... 447-7178
Allied Health ..... 447-7944
Nursing ..... 447-7181
Science and Technologies ..... 447-7140
Wellness and Exercise Science ..... 447-7899

# Admissions 

Bergen Community College maintains an open door policy: anyone who is 18 years of age may take our classes; those under 18 who have a high school diploma may also take classes.

M ost of Bergen's academic programs are open to anyone with a high school diploma. Some health programs have limited space and specific entrance requirements.


## Degree-Seeking Students

Those wishing to complete an Associate Degree or Certificate Program must apply for admission to the college. Application forms are available from the Admissions Office in A-129.

- The completed application must be returned with a non-refundable $\$ 20$ application fee.
- Official high school transcripts (or GED test scores) must be forwarded to the Admissions Office.
- If the application is filed later than July 1 for fall admission, or November 1 for spring admission, all required documentation must be enclosed with the application
-A student on an F-1 visa must apply no later than July 1 for fall admission, or November 1 for spring admission.
- Students seeking admission to health programs should apply as early as possible as space in these programs is limited.
- Graduates of foreign high schools must submit official translations of their credentials showing that their education is equivalent to that of a United States high school graduate. Contact the Admissions Office for information on acceptable translation agencies.
- Students who have attended other colleges or universities must have transcripts sent to the Admissions Office.
- Students must complete the Basic Skills Placement Test before registering for classes.
- All students who are accepted while in their senior year of high school must submit a final transcript upon graduation.

All students accepted to the college must submit a completed medical form before registering for a Wellness and Exercise Science course.

## Non-Degree Seeking Students

Those who do not plan to complete an Associate Degree or Certificate Program may take classes without applying to the College. High school graduation is not a requirement for those over 18 years of age.

The Basic Skills Placement Test need not be completed before registering for classes. However it must be completed before registering for the 12 th credit.

Non-degree seeking students who subsequently decide to complete a degree may apply no more than 45 credits earned prior to acceptance into a degree program.

General Educational Development diploma (GED) students who are 18 years of age or older who do not have a high school diploma may qualify for a GED diploma by:

- Passing the high school proficiency test, and
- Completing a program of 30 credits of General Education college credits.

Contact the Office of Testing and Assessment (447-7202) for more information.

## International Students

Students from outside the United States can apply for admission to Bergen Community College. They will need to apply to the college and for the international student status (F-1) with the Immigration and Naturalization Service. International students must submit documentation that shows that their high school credentials are equivalent to those of a United States high school graduate. A certified translator must translate all credentials into English. Photocopies and faxed documents are not acceptable. All international applicants must provide their passports, visa status and I-94 cards before applying for international student status. Depending upon the student's present immigration status, certain Immigration and Naturalization forms will need to be completed. Sponsorship, either from the individual student or from someone else, needs to be provided in order to document the fact that the student will be financially independent while studying at Bergen Community College. The international admissions counselor will review all documents and upon satisfactory review, an I-20 form will be produced.

International Admissions Workshops are available throughout the year for international applicants residing in the Bergen Community College area. These workshops relate the required information concerning how to apply, what Immigration and Naturalization forms are needed, discusses individual immigration problems and serves as a means of introduction of the International Admissions Counselor. They can be scheduled by telephoning (201) 447-7218.

Candidates residing outside of the United States can request an international admissions packet to be mailed to them. Upon arrival in the United States, these students should report to the International Admissions Counselor's Office with their passport and approved I-20 form.

Deadline dates for submitting all documents are strongly enforced and are as follows: for the fall semester - July 1; for the spring semester - November 1.

## Counseling

Counselors are available to advise students from other countries on their special problems, and to assist them in partaking fully in student life. For questions about Bergen Community College, United States Immigration or problems with courses, personal matters, or anything else, please call the Counseling Center at 447-7211.

## Health Career Programs

Please see "Entrance Requirements for Health Career Programs" at the end of this chapter.

## Second Bergen Community College Degree

Students who have completed a certificate or degree program at Bergen Community College, and desire to pursue another certificate or degree at the college must complete and submit a new application for admission and current application fee. Credits earned toward or for a prior degree or certificate are considered transfer credits and apply toward a second degree as outlined in the College Residency Policy. Such applicants should write "SECOND DEGREE" at the top of their applications.

Students may earn only one Associate in Arts (AA) and one Associate in Science (AS) degree at Bergen Community College. Two or more Associate in Applied Science (AAS) Degrees and Certificates are permissible if in different majors.

## Students W ith Disabilities

Bergen Community College is both pleased and fortunate to be an educational institution that is accessible to disabled students. The Office of Specialized Services serves students with physical, visual, learning, hearing, and emotional disabilities. Continuous contact is maintained throughout a student's college experience in order to assist the student in attaining his or her desired academic goals.

Astudent with a disability who plans to attend Bergen Community College should provide documentation of the disability and accommodations needed to the Office of Specialized Services as soon as possible otherwise, no services can be provided. You must indicate that you have a disability on the application to the college. Disclosure on the application is voluntary but must be made if services are to be provided in a timely manner.

The aids can include sign language interpreters, electronic readers, print enlargers and Braille printers, scribes, notetakers, tutors, alternative testing arrangements, counseling and support groups. Students with disabilities are encouraged to visit the Office of Specialized Services in Room S-131 or call (201) 612-5270 or (201) 447-7845 (TTY).

## Veterans

Students planning to receive Veterans' Administration educational benefits should report to the Office of Financial Aid (A-123, 447-7148) before the beginning of each semester of attendance, including summer session. Application for benefits are also available and processed in this office. It is the student's responsibility to notify the office of any changes in enrollment during the school year.

## New J ersey National Guard

Adegree seeking New Jersey resident who is currently an active member of the New Jersey National Guard or a child or spouse of a member who was killed in the performance of his or her duties while on active duty with the New Jersey National Guard is entitled to enroll in a maximum of 12 credits per semester without the payment of tuition. Tuition-free enrollment is permitted only to the extent that federal or state financial aid does not cover tuition costs; therefore, the appropriate financial aid forms must be filed. Applicable fees must be paid by the student. All registrations under this program are on a space available basis and must occur on the specific dates and times designated. Additional information may be obtained from the Veterans'Affairs Advisor located in the Financial Aid Office, A-123 (447-7148).

## Senior Citizens

Bergen County residents who have reached their 65th birthday on the date of Senior Citizen Registration may enroll in any credit courses offered by the college without payment of tuition, provided space in classes is available following registration of all other students. All applicable fees must be paid. Senior Citizen Registration will occur in person on the specific dates and times designated. All prerequisites and basic skills testing requirements must be met.

## Unemployed Persons

New Jersey residents who have been in the labor market for at least two years and who are unemployed or in receipt of a layoff notice are entitled to enroll in credit courses on a tuitionfree basis. Enrollment is on a space available basis and registration must occur on the designated days only. Tuition-free enrollment is permitted only to the extent that federal or state financial aid does not cover tuition cost. The student must pay all fees. Contact the Financial Aid Office for additional information.

## Volunteer Fire, First Aid and Rescue Squad Members and Family

New Jersey residents who are active members of a volunteer fire company or volunteer first aid or rescue squad or association in good standing and the dependent children and spouse of a volunteer shall be allowed to enroll on a tuition-free basis in a county college and be eligible to receive tuition credit in an amount not to exceed a maximum of $\$ 2400$. Students will be eligible for this tuition credit provided that available classroom space permits and that tuition paying students constitute the minimum number required for the course. Registration must occur on designated days only.

In order to be eligible to receive tuition credit, a person shall agree to serve as a member of a volunteer fire company or first aid squad for a minimum of four years and sign an agreement with the municipality pledging four years of service in exchange for the tuition credit. Following each year of volunteer service performed, the volunteer, dependent or spouse shall be entitled to receive tuition credit of up to $\$ 600$ per year, not to exceed a maximum of $\$ 2400$ over a four year period.

Students should contact the Financial Aid Office at (201) 4477148 for additional information.

## Visiting Students

Students from other institutions should obtain written permission from their home colleges before attempting to apply or register for any courses at Bergen Community College. All prerequisites and basic skills testing requirements must be met.

## TESTING AND ASSESSMENT

In support of the mission of Bergen Community College, the Office of Testing and Assessment (OTA) offers a variety of testing services. The Bergen Community College Office of Testing and Assessment, 447-7202, is located in Room. L-121 adjacent to the Student Center. The Office of Testing and Assessment serves the college community by identifying, developing, procuring, administering, processing, and/or evaluating examinations which meet a variety of administrative and instructional needs.

## Basic Skills Placement Test

Bergen Community College requires that all degree seeking students and all non-degree seeking students who reach their 11th attempted credit take a basic skills assessment and placement test in reading, writing, computation, and algebra. The results of this test determine a student's required entry level courses in both English and mathematics. Under specific conditions, a student may have his/her placement test requirement waived. For information about waivers as well as placement test information bulletins and subject matter review sheets visit the Office of Testing and Assessment, Room L-121. There is no fee for this examination.

## Comprehensive English Language Test

International students or students for whom English is not their native language may be required to take the Comprehensive English Language Test (CELT). This test measures proficiency in reading, writing, and listening and may place students in the American Language Program (ALP). Students placed in the ALP are required to complete this program before registering for courses in their chosen curricula. Students who complete the ALP or who have tested out of the program through the CELT are then required to take the mathematics portion of the Basic Skills Assessment and Placement Test. Under specific conditions, a student may have his/her CELT and/or mathematics test requirement waived. Further information about waivers, the CELT and the ALP is available at the Office of Testing and Assessment, Room L-121. There is no fee for this examination.

## Challenge Tests

Due to a variety of circumstances students may not perform to the best of their abilities on the Basic Skills Assessment and Placement Test. To reassess basic skills proficiency, challenge tests are offered in English, Computation and Algebra.
Challenge tests are offered periodically throughout the semester. A copy of challenge test policies and procedures with a cur-
rent schedule of test dates may be obtained in person from the Office of Testing and Assessment, Room. L-121. There is no fee for Challenge Tests.

## Proficiency Tests

Proficiency tests are offered as a means of placement for a variety of college level courses. Successful scores on proficiency tests allow students to register for a higher level course within the same discipline sequence. However, a successful proficiency test carries no course credit. Proficiency test registration forms can be obtained from the Office of Testing and Assessment, Room L-121. There is a $\$ 30.00$ fee for each proficiency test taken.

## Credit-by-Examination

The Office of Testing and Assessment administers credit-byexamination for a large number of college level courses. In order to receive college credit for a particular course, a student must earn a passing grade on specific subject examinations. Upon successful completion of an examination, the student will pay a $\$ 15$ per credit fee for which the student will receive a "CBE" grade. The "CBE" grade is not included in attempted credits but is included in earned credits. The "CBE" grade is not computed in a student's cumulative grade point average. Registration information and a list of available subject examinations may be obtained at the Office of Testing and Assessment, Room L-121.

In addition, Bergen Community College students may earn college credit for learning achieved outside formal college courses through the College Level Examination Program (CLEP). Visit the Office of Testing and Assessment for more information about CLEP.

## General Educational Development (GED) Test

BCC serves as a test center for the GED test. The GED test consists of five parts which are administered over two evenings, once a month. Advanced registration is required two weeks prior to test dates on a first come, first served basis. Registrants are required to:

- Register in person on specific dates
- Pay a $\$ 25$ fee in the form of a Money Order payable to the Commissioner of Education
- Present a valid picture identification with signature
- Provide proof of birth date (a certificate of consent to participate, obtainable through this office, must be signed by a parent or guardian for 16 and 17 year old and submitted at registration)
- Present all test scores from previous GED tests.


## Special Accommodations Testing

A variety of accommodations can be provided to students if they are disabled. Each semester students are required to visit the Office of Specialized Services (S-131) to obtain accommodations for their classes.

The Office of Testing and Assessment will provide special testing based on approval from the Office of Specialized Services. Professors will also be notified. Detailed information remains confidential unless the student signs a written release form, or presents a danger to self or others.

## Instructional Make-up Testing

The Office of Testing and Assessment administers make-up tests as a service for students who have missed a scheduled classroom examination. Students must make arrangements with their course instructors to take these examinations under specific conditions in the Office of Testing and Assessment, Room L-121.

## World Language Testing

Bergen Community College awards credit and/or course waivers for World Languages through Bergen Community College World Language proficiency tests, the New York University Proficiency Testing in Foreign Languages Program, and the College Level Examination Program (CLEP). For information on any of these testing options, contact the Office of Testing and Assessment at 447-7203 in Room L-121.

## 2+2 Program

BCC participates in a $2+2$ Program whereby college credits may be granted to high school students who successfully pass the equivalent of a final examination. Students who have at least a "C" average in high school and who are recommended by their instructors and principal are eligible for the program. There is a $\$ 30$ fee for each examination. Upon payment of the usual tuition and fees, and matriculation into a program at Bergen Community College, students receive a "CBE" grade for each course successfully tested. A "CBE" grade is not included in attempted credits but is included in earned credits. A "CBE" grade is not computed in a student's cumulative grade point average.

## Proctoring Services

The Office of Testing and Assessment provides special test proctoring for individuals who are participating in programs sponsored by colleges, universities, government agencies, private institutions, and business and industry which require a secure examination environment. Individuals requesting this service must make arrangements with their program sponsor to send confidential test materials and administrative instructions to the Office of Testing and Assessment. A fee is charged for test administration.

## Outc omes Assessment

Students may be asked to participate in one or more outcomes assessment measures including statewide or college designated standardized or locally developed assessment tests or procedures. If selected, students are required to participate in these assessment activities.

## TRANSFER OF CREDIT

Applicants transferring from accredited colleges may be admitted with advanced standing, if admission requirements of Bergen Community College are met. Transfer credit and advanced standing will be granted only for those courses which are similar to those offered at Bergen Community College and applicable to the specific program of study. Grades below "C" are generally not accepted for transfer.

## College Residency Policy

Students may apply a maximum of 45 transfer credits toward a degree. The maximum number of credits that can be applied toward a certificate depends on the number of credits required by the certificate. These credits may be compiled from a prior Bergen Community College degree/certificate, transfer credits from other institutions, and/or proficiency and CLEP examinations. The balance of credits required for any degree or certificate must be earned through actual course enrollment at Bergen Community College.

## Request to Take Courses at Other Institutions

Degree seeking students desiring to take a course or courses at another institution must fill out the appropriate form obtainable in the Office of Registration and Student Information Services.

## TRANSFER TO OTHER INSTITUTIONS

A transcript fee of $\$ 3.00$ will be required for each transcript sent as part of the application process. The fee is payable at the time the request is made and it takes five working days for processing. Transcript Request forms are available in the Office of Registration and Student Information Services. College policy requires that a student's signature must appear on all transcript requests. The college is not obligated to furnish a transcript to any student or alumnus whose financial obligation to the college has not been satisfied. Only unofficial copies of a transcript will be issued directly to students.


At Transfer Day, representatives from leading universities in the region recruit BCC students to their bachelor's programs.

## New J ersey Full-Faith-and-Credit Policy

In 1973, the New Jersey Board of Higher Education adopted a Full-Faith-and-Credit policy in an effort to improve articulation between community and state colleges and to remove any artificial barriers to transfer for community college graduates. The intention of this policy was to permit county college graduates with an AA or AS degree to enter state colleges as full juniors. With the July 1, 1994, dissolution of the Department of Higher Education the Full Faith policy is no longer a written guideline. However, the Commission charged with overseeing higher education in New Jersey is committed to the intent of this policy, and it is expected that community college credits and transfer degrees will continue to be treated as before. The policy allows individuals who earn AA and AS degrees at New Jersey public institutions to receive full credit at the state colleges for their general education courses but does not preclude the state colleges from requiring additional general education work of them. The Full-Faith-and-Credit policy applies to New Jersey community colleges and New Jersey state colleges, including Thomas Edison State College. It does not apply to Rutgers University or New Jersey Institute of Technology, although each is encouraged to adopt the policy.

## Transfer Articulation Agreements

Transfer Articulation Agreements with four year institutions have been developed for graduates of many Bergen Community College programs. ADual Admissions Program in Business and Liberal Arts and Sciences has been established with Montclair State University. Bergen Community College has also entered into a joint transfer partnership with the New Jersey Institute of Technology, towards the Bachelor of Arts and Bachelor of Science in Engineering, Management and Computer Science. Copies of Transfer Articulation and Duel Admission Agreements are available in the Counseling Center, Room A-118, and in the college library.

## Degree Pathw ays Program

After earning an associate degree at Bergen Community College, students may continue to earn 20 additional credits at Bergen, and apply those credits toward a Thomas Edison State College bachelor's degree. The remaining bachelor degree requirements can be completed through Thomas Edison State College distance learning courses, either at home or by using Bergen Community College facilities. "Distance Learning" courses are on-line courses, e-mail courses, Interactive Television Video courses, and telecourses.

## Transfer Counseling

For assistance with the college selection process, students are encouraged to speak with a transfer counselor. Appointments may be made in the Counseling Center. Information and reference materials are provided in the Transfer Library and in the Bergen Community College Library. Transfer Information Sessions are held throughout the semester. Applications for most local colleges may be obtained in Room A-118. Representatives from New Jersey and out-of-State colleges visit the campus throughout the year.

## ENTRANCE REQUIREM ENTS FOR HEALTH CAREER PROGRAMS

Admission to college programs in health careers is limited to a specific number of candidates each year because of requirements imposed by accrediting agencies and the availability of faculty, college laboratory and clinical agency resources. To insure that all candidates are evaluated in the same way, within each discipline, criteria for acceptance have been developed by the Division of Science and Health and the Division of Student Services. These criteria will be utilized in determining the candidates who will be offered admission.

If you have not taken the necessary high school prerequisites, the courses can be made up by substituting courses taken at BCC. These courses must be taken BEFORE you apply to Nursing or any health career program. To be considered for most programs, science prerequisites must have been completed within the last ten years. Applicable college science courses taken more than ten years ago are not transferable.

A successful candidate for a health career program at Bergen Community College must possess certain abilities and skills
necessary to provide and maintain safe and effective care administered to the patient. The candidate must be able to function on an independent level without any intermediary. These skills and abilities include: observation, communication, motor skills, cognitive and intellectual skills, behavioral and social attributes.

Students accepted into Health Career Programs, who on the basis of the Basic Skills testing results require remediation, will be placed into a deferred acceptance category until remediation needs have been met. Deferred acceptance students must remain in contact with the Director/Coordinator of their specific Health Career Program during progression through required remediation.

State and National regulatory agencies which license graduates of Nursing and Allied Health programs may refuse to admit to licensing examinations any candidate who has been convicted of a crime or who is incapable, for medical or other cause, of discharging the functions required of a Nurse or Allied Health technician.

| Minimum Entrance Requirements |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Dental Hygiene | AAS.AH.DENTL | 2 year AAS | Chemistry w/lab, Biology w/lab, Algebra | $\begin{aligned} & \text { CHM 100 } \\ & \text { BIO 101, 107, 109*, M AT } 035 \end{aligned}$ | 2.5 |
| Diagnostic Medical Sonography | AAS.AH.DM S | 2 year AAS | One Biology w/lab, Algebra | BIO 101, 107, 109*, M AT 035 | 2.5 |
| Exercise Science | $\begin{aligned} & \text { CERT.EXER.SCI } \\ & \text { AS.PS.EXER } \end{aligned}$ | 1 year Certificate 2 year AS | None None | None None | $\begin{aligned} & 2.0 \\ & 2.0 \end{aligned}$ |
| Health Science | AAS.H.HLTH.SCI | 2 year AAS | Prof. Cert./License | None | 2.0 |
| M edical Laboratory Technology | AAS. AH.M LT | 2 year AAS | Chemistry w /lab Biology w/lab, Algebra | $\begin{aligned} & \text { CHM 100 } \\ & \text { BIO 101, 107, 109*, M AT } 035 \end{aligned}$ | 2.5 |
| Medical Office Assistant | AAS.AH.M OA | 2 year AAS | One Science One M ath | $\begin{aligned} & \text { BIO 101, 107, 109* } \\ & \text { MAT } 011 \end{aligned}$ | 2.0 |
| Nursing (Day) | AAS.NURS.DAY | 2 year AAS | Chemistry w/lab Biology w/lab, Algebra | $\begin{aligned} & \text { CHM 100 } \\ & \text { BIO 101, 107, 109*, M AT } 035 \end{aligned}$ | 2.5 |
| Nursing (Evening)** | AAS.NURS.EVE | 2 year AAS | Chemistry w/lab Biology w/lab, Algebra | $\begin{aligned} & \text { CHM 100 } \\ & \text { BIO 101, 107, 109*, M AT } 035 \end{aligned}$ | 2.5 |
| Physical Therapist Assistant*** | AASAH.PTA | 2 year AAS | Chemistry w/lab Biology w/lab, Algebra | $\begin{aligned} & \text { CHM 100 } \\ & \text { BIO 101, 107, 109*, M AT } 035 \end{aligned}$ | 2.0 |
| Radiography | AAS.AH.RAD | 2 year AAS | One Science, Algebra | BIO 101, 107, 109*, M AT 035 | 2.5 |
| Respiratory Therapy | AAS.AH.RESP | 2 year AAS | Chemistry w/lab Biology w/lab, Algebra | $\begin{aligned} & \text { CHM 100 } \\ & \text { BIO 101, 107, 109*, M AT } 035 \end{aligned}$ | 2.0 |
| Surgical Technology | CERT.SURG | 1 year Cert. | None | None | 2.0 |
| Veterinary Technology | AAS.H.VET | 2 year AAS | Chemistry w/lab Biology w/lab, Algebra | $\begin{aligned} & \text { CHM 100 } \\ & \text { BIO 101, 107, 109*, M AT } 035 \end{aligned}$ | 2.0 |

* HS Biology is waived if BIO101, 107 or 109 is successfully completed.
** Evening Nursing applicants cannot be accepted until general co-requisites ( 8 courses) have been completed. These courses are: BIO 109, BIO 209 (Anatomy and Physiology I \& II), WRT 101, WRT 201 (English Composition I \& II), PHY101 (General Psychology), PHY106 (Developmental Psychology), SOC 101 (Sociology), and WEX 101 (Dynamics of Health and Fitness).

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## Specia Programs

## EDUCATIONAL OPPORTUNITY FUND PROGRAM (EOF)

The Educational Opportunity Fund Program was instituted by the New Jersey State Legislature in 1968 for the purpose of helping economically and educationally disadvantaged students obtain a college education.

Students who are accepted into the program are provided with a grant and comprehensive support services designed to enhance their college experience and to insure the success of each participant. Such services include extensive counseling, tutorial assistance, academic advisement, career exploration, and workshops geared towards the specific needs of the students.

Participants are encouraged to attend a six-week summer program immediately prior to the fall semester of the freshman year. The summer program helps students adjust to the college environment, and also focuses on academic preparation for the fall semester. Students may advance semester of course work by attending the "Pre-Freshman Summer Program." In order to qualify for EOF a student must be a legal resident of New Jersey for at least 12 consecutive months prior to receiving the grant, have a high school diploma or equivalent, enroll for 12 or more credits, and meet financial guidelines. Dependent and Independent students are financially eligible for an EOF grant based on the following scale:

| Household Size | Gross Income for Previous Year not to Exceed* |
| :---: | :---: |
| 1 person | $\$ 16,480$ |
| 2 persons | $\$ 22,120$ |
| 3 persons | $\$ 27,760$ |
| 4 persons | $\$ 33,400$ |
| 5 persons | $\$ 39,040$ |
| 6 persons | $\$ 44,680$ |
| 7 persons | $\$ 50,320$ |
| 8 persons | $\$ 55,960$ |

Add \$5,640 for each additional member of the household.
*Subject to change.
The EOF Program is not an entitlement program. Although students may qualify for the program, admission criteria give priority to first-time, full-time freshmen and to EOF transfer students in good standing from another EOF Program.

Individuals interested in the Educational Opportunity Fund Program should contact the EOF Office (Room A-126, phone 447-7139).

## COLLEGE EXPERIENCE PROGRAM

The College Experience Program is a mechanism for motivating talented high school juniors and seniors to pursue advanced education at an early stage in their academic life. Courses applied for should represent an advanced experience and reflect an accelerated academic interest. Approved applicants will be permitted to take up to two courses or six credits per semester when enrolling for the fall or spring semesters. During the summer sessions students will be permitted to take four credits or one course per session.

## Eligibility:

1. High school junior or senior at least 16 years old.
2. Overall average of "B" (3.0) in high school courses. Transcripts are required. Home schooled students must provide official transcripts from their Board of Education.
3. Approval by parent and high school officials.
4. Successful completion of both the English and Math portions of the Basic Skills Placement Test.

Additional tests in mathematics may be required to qualify for registration in advanced math courses. College Experience Program applicants must obtain special approval before registering for courses. Applications may be obtained by calling the Admissions Office at 447-9228, and must be returned to that office according to the published deadlines. College Experience students must register in person.

## ORIENTATION

Prior to the opening of classes, an orientation program is held to provide an opportunity for new students to become acquainted with college objectives, facilities, and programs. Students confer with faculty advisors and counselors and attend various social functions. Information pertaining to the orientation program is mailed to all entering students.

## COLLEGE FRESHM AN SEMINAR

The Freshman Seminar (IS-121) is a credit course designed to help students develop the skills necessary to succeed in college. Topics covered during the course include decision making, goal setting, time management, study skills, test taking strategies, and an overview of college resources and procedures. The seminar also offers students a chance to establish contacts with key faculty members and develop relationships with their peers.

## DEVELOPM ENTAL PROGRAM

All degree-seeking students and all non-degree-seeking students who reach their 11th attempted credit must take a basic skills assessment and placement test in both English and mathematics unless they qualify for a waiver. As a result of this test the student may have to enroll in non-degree credit developmental courses in English and/or mathematics which often combine regular course work with laboratory activities. These preparatory courses emphasize the development of basic reading, writing, computation, and algebra skills which will help students perform successfully in college level courses.

## English Basic Skills

Based upon the results of the English portion of the basic skills assessment and placement test, a student may be placed in one of four entry level English course: Developmental Skills I and Developmental Skills II, English Skills, Directed Studies in Writing and Composition I, or Composition I alone. Students placed in Developmental Skills I and II or English Skills must enroll in their required course in their first semester at the college.

## Math Basic Skills

Based upon the results of the mathematics portion of the basic skills assessment and placement test, a student may be placed in one of three levels of developmental math: Basic Mathematics (MAT-011) or the sequence of Algebra Aand B (MAT-031 and MAT-032) , or Algebra (MAT-035).

## ACADEM IC INTERVENTION AND M ONITORING SYSTEM (AIMS)

AIMS is an academic and personal support program designed for students who are most at risk in a college environment because of their deficiencies in reading, writing, thinking, and mathematical skills. AIMS exists to help these students achieve academic success, remain in school, and develop a greater sense of independence and self-esteem. The AIMS program offers fulltime, first semester students at BCC the following advantages:

- Special orientation and registration session.
- Pre-selected program of courses and services, including Basic Mathematics (Computation), Developmental Skills I (English), Basic Communications (Speech), Directed Studies in Academic Skills, tutoring, and individual counseling.
- Pre-scheduled patterns of courses.
- Small classes, averaging 15-18 students.
- Afull-time credit limit of 14 institutional credits.
- Individualized attention from both classroom instructors and counselors.

The AIMS program is a joint effort supported by the Division of Arts and Humanities; the Division of Business, Mathematics, and Social Sciences; the Division of Student Services; and the Office of the Academic Vice President. If you wish to discuss the advantages of the AIMS program in further detail, please contact the AIMS program coordinator, Room L-121, at 447-7852.

## AM ERICAN LANGUAGE PROGRAM

International students for whom English is not their first language and who are admitted or planning to attend Bergen Community College will be given the Comprehensive English Language Test (CELT). Testing results will be used to place students into the American Language Program courses at Bergen Community College.

Non-degree college credits earned upon successful completion of American Language Foundation, Level I, II, or III may not be used to fulfill degree requirements.
English Composition I and II (for International Students) courses fulfill the same college degree requirements as English Composition I and II.

Courses
Credits
American Language Foundations
ALP-004, 005, 006, 007, and SPE-009
American Language Level I
ALP-041, 042, 043, 044, SPE-001
American Language Level II
ALP-051, 052, 053, 054, SPE-002

American Language Level III
ALP-061, 062, 063, 064, SPE-003
Students placed in the American Language Program may enroll for a maximum of 15 credits per semester. Students who wish to enroll on a part-time basis should see an international student counselor for advisement on proper course selection. Students placed in the American Language program cannot take college level courses until they have successfully completed all levels of the American Language program as well as having passed required exit examinations. Also, upon completion of required ALPcourses, students must take a mathematics placement test or be granted a waiver.

## COOPERATIVE EDUCATION, CAREER COUNSELING AND PLACEMENT

Cooperative Education is an academic program at Bergen Community College in which students combine classroom learning with practical work experience. The aim of the program is to provide students with meaningful and valuable learning experiences as well as specific skills related to career goals. In some majors, Co-op is mandatory and in some it is optional. On campus, students continue their usual academic program and participate in a Co-op seminar where they explore the relationship between academics and day to day work situations. Students receive academic credit for successful completion of the Co-op Work Experience in which more than 300 employers participate.

To be eligible, a student must have fulfilled the prerequisites of the Co-op course. After having met the requirements, students
should contact the Cooperative Education and Career Development Center to fill out an application and for assistance with placement in their Co-op Work Experience.

In addition, the office offers career counseling and maintains job listings for Bergen Community College students and alumni. Ongoing workshops in Resume Writing, Interviewing Skills, and Career Planning are offered throughout the semester. For information about the above programs call the Office at 4477171 or visit C-100.

## SERVICE LEARNING

Service-Learning is the integration of academic instruction with community service within a specific course. It focuses the student on critical thinking, reflection and civic responsibility. Students participate in an organized service activity that meets a community need which gives students the opportunity to gain a deep understanding of the course content. Check the registration book for courses that offer a Service-Learning component. For further information, call the Cooperative Education Office at 447-7171 or visit C-100.

## HONORS PROGRAM

Honors sections are offered during the fall and spring semesters. Students with a strong high school record or a college G.P.A. of at least 3.4 are invited to enroll. Honors students enjoy smaller and more challenging classes, work closely with faculty advisors, get honors credits recorded on their transcripts, and improve their prospects for transferring, earning merit scholarships, and beginning interesting careers. For further information, call the coordinator of Bergen's Honors Program, Dr. Geoffrey Sadock, at (201) 447-9284.

## INSTITUTE FOR LEARNING IN RETIREM ENT

Bergen Community College has joined in a partnership with the Elderhostel Program, a national non-profit organization. This is part of a growing movement that is operating on 250 college campuses in the United States to offer courses and programs for adults 55 and over, to continue their educational experiences. For further information call Dean Lois E. Marshall at (201) 447-7156 or visit B-105.

## INSTITUTE FOR CORPORATE TRAINING

The mission of the Institute for Corporate Training is to bring the highest training at affordable prices to business, industry and governmental agencies in Bergen County. Our objective is to improve productivity and profitability as well as communication and human understanding. Our courses are offered on-site or in our classrooms at the Paramus campus or at the Ciarco Learning Center in Hackensack. We specialize in the following areas: Computer Instruction, English as a Second Language, Supervisory Skills, Leadership Skills, Total Quality Management, Communication Skills, Team Building, Diversity, Human Resource Issues, ISO Registration Preparation. The New Jersey Department of Labor offers financial assistance in the form of matching training grants. Business and organizations seeking to create, upgrade or retain high-skill wage jobs in

New Jersey can qualify. We will assist you with the grant preparation and a complete needs analysis is free of charge. To schedule a meeting or for additional information call (201) 612-5348.

## CONTINUING EDUCATION

The Continuing Education Division is an integral part of the community college. It is committed to being innovative; a leader in the pursuit of lifelong learning. One of its functions is to monitor the environment and quickly respond to the educational and training needs of an increasingly diverse society.

Continuing education serves as an incubator for testing new formats, new marketing strategies and new programs which are frequently institutionalized by the college community. Continuing education professionals have a proven track record in reaching and serving a non-traditional clientele that includes minorities, women, the unemployed, the underemployed, youth, single parents, the elderly, and working adults. The history of continuing education is marked by successful strategies for building winning partnerships that provide the innovative delivery systems needed by these diverse students.

In this effort, Continuing Education joins with over 40 federal, state and county agencies, professional organizations and other colleges and universities in co-sponsoring many of its more than 800 programs each year.

The major components of the Division of Continuing Education are: continuing professional education, workforce training and retraining, personal and cultural enrichment, computer technology, community development, domestic and international business and economic development. The general approach is proactive and highly responsive, providing citizens and businesses with access to quality programs at a variety of locations and in formats that blend education with work and self-development throughout one's lifetime. In our effort to provide quality programs geared towards business and career advancement, we have developed certificate programs such as: A+ Certification, The Career Edge, Computers in the Workplace, E-Commerce, E-Business, Entrepreneurship, Medical Billing, Medical Transcription, Microsoft Office, Natural Healing Therapist, Network Cabling Specialist, Pesticide, Reflexology, and Webmaster. The State Board of Health has approved such programs as: Home Health Aide, Certified Nursing Assistant and Certified personal Care Assistant. We also offer the convenience of online courses. The value added function of continuing education and economic development efforts is a vital complementary ingredient which provides the community with a full service college.

For information and a non-credit course catalog, contact the Division of Continuing Education at 201-447-7150 or visit the Registration Office, Room A-210, Monday through Friday, 9 a.m. to 5 p.m. The Continuing Education Catalog can be viewed on our website: www.bergen.cc.nj.us/continuinged/

## PHILIP CIARCO J R. LEARNING CENTER

The Philip Ciarco Jr. Learning Center, located at 355 Main Street in Hackensack, was founded by the college in 1970 to provide educational and counseling services for adults who have not completed a formal high school education and for adults who are interested English as a Second Language. Since then, over 50,000 adults have enrolled at the Center. Many of these adults have gone on to college and other post-secondary training.


ESL, GED, and Adult Basic Education classes are held in the new Ciarco Learning Center, as well as off-site at Ridgefield Park, Teaneck, Fair Law n, and Hackensack high schools.

The Center offers a variety of free and tuition courses both on and off site for adults who wish to enhance their education. The programs at the Ciarco Learning Center are scheduled to enable adults to enroll at anytime, regardless of whether they are seeking basic remediation or preparation for college admission. Through the concept of individualized instruction, adults who have not completed their education can enter the Center at any level of ability and move from that point to achievement of their goals.

Adults seeking to earn a Bergen Community College associate's degree can also begin their program at the Ciarco Learning Center. The newly renovated and expanded facility houses spacious seminar rooms, computer laboratories, and student lounge areas. The Center is a welcoming and supportive environment for adult learners. For further information, call the Ciarco Learning Center at 201-489-1551.

Customized training programs for business and industry, and volunteer opportunities in adult education, are also available.

The following programs and services are offered through the Ciarco Learning Center:

- Adult Basic Skills (free classes sponsored by the New Jersey Department of Education)
- WIB: Workforce New Jersey Job Search
- Employability Skills
- High School Equivalency (GED)
- Sigi Career Information
- Pre-College Remedial Courses
- Career Counseling
- English as a Second Language
- Programs for Business and Industry
- Citizenship Preparation
- Credit and Non-Credit College Level Courses


## Community Counseling Service

Free counseling services for adults include:

- Making decisions about jobs/careers
- Developing employability skills
- Completing high school education
- Planning college education
- Locating special educational and training program
- Locating services of a special nature


## Links with Business and Industry

The Ciarco Learning Center extends its scope of services through collaborative ventures with the Department of Labor Business Resource Network and the Federal TRA Program by providing customized training programs for business and industry to companies focusing on Basic Skills and English as a Second Language.

## The Helen L. Haber Scholarship

A $\$ 500$ scholarship is awarded annually to a qualified woman on the basis of financial need and educational commitment.


Individualized instruction helps adults prepare for or begin their college careers.


## ACADEM IC ADVISEM ENT

Student course advisement is provided by faculty during the year at scheduled office hours or on a drop-in basis in the Academic Advising Center, A-101, in the Student Center, and at Late Registration. Counselors are available by appointment in the Counseling Center, Room A-118.

## REGISTRATION

A course schedule is published each semester that provides all necessary course information, the academic calendar and deadlines for the semester, registration forms and policy.

## Priority Registration

Currently enrolled students are given priority over all other students at the start of each semester's registration period.
Students who have earned the most credits will be invited to register first.

## Open Registration

After the Priority Registration period, new and returning students will be permitted to register.

## Late Registration

Three to four weeks before the semester starts, students may encounter long registration lines and a high proportion of closed course sections. A $\$ 20$ processing fee is charged, and payment of tuition and fees in full is expected at the time of registration.

## \& Tuition

## Cancellation of Classes

The college reserves the right to cancel a class for which there is insufficient enrollment or to make changes in prerequisites, instructor assignments, course descriptions, credits and scheduled offerings in the academic year as it may deem necessary for the proper and efficient functioning of the college.

Should a course be cancelled by the college, students enrolled will be given the opportunity to enroll for other courses in which seats remain. Those choosing not to enroll will receive a full refund.

## Student Responsibility

Students will be held responsible for reading all pertinent information in college publications regarding withdrawals, course drops, college deadlines, tuition refunds, etc. Students are responsible for compliance with the rules and regulations as stated in college publications. Students who have holds or violations on their records will not be permitted to register for classes, receive final semester or session grades, or obtain copies of their academic transcripts or other college records.

## Academic Calendar

Students are responsible for obtaining a copy of the official academic calendar and complying with the dates and procedures contained therein. Copies are available in the Office of Registration \& Student Information Services and the Welcome Center.

## TUITION AND FEES

Tuition and fees are payable at the Bursar's office. Checks and money orders must be made payable to Bergen Community College and have student's social security number or Datatel ID number on the face. Visa and MasterCard are also acceptable. Please do not send cash through the mail.

Students will be provided a bill at the time of registration. The bill specifies the date that payment is required. Failure to pay in full by the specified date may result in the cancellation of registration.

Scholarships and other financial aid must be presented at the Financial Aid Office in order to be considered for payment of tuition and fees. Scholarships and financial aid are not applicable to the admission fees or tuition deposit.

No student may be enrolled in classes until all charges have been paid. Tuition and fees are applicable only to the semester/ session for which they are paid. These monies cannot be transferred or credited to any subsequent semester/session.

## Admission Fees

Application Fee for degree seeking students only (Non-refundable)
$\$ 20.00$
Readmission Fee
(Non-refundable)
$\$ 10.00$
Tuition Deposit for newly admitted students
(Non-refundable and non-transferable)
$\$ 50.00$

A non-refundable tuition deposit is required of full-time and part-time first year students at the time of their acceptance. The Acceptance Form will contain a specific due date for payment of the deposit and return of the form.

A tuition deposit may only be applied to the semester for which it was paid. No tuition deposit is required after the first semester the student attends as a degree seeking student.

## General Fee ( $15 \%$ of tuition)

Payable by all students each semester or session. The general fee partially defrays the following costs: registration, parking, library, laboratory breakage, student and intercollegiate activities, student government, identification cards and graduation cost. This general fee is non-refundable and payable each semester or session on a per credit basis.

## Applicable Course Fees

In courses where additional instructional cost factors are incurred, the student will be charged a course fee ranging from $\$ 20.00$ to $\$ 60.00$. Schedules and bills will indicate which courses have an additional cost factor. The tuition and fees are subject to change.

|  | Per Credit Rate |  |
| :--- | :--- | :--- |
| Tuition |  |  |$\quad$| General Fee |
| :---: |
| Bergen County <br> Resident |
| Out of County <br> Resident |
| Out of State <br> Resident |
| Students on <br> Non-Immigrant <br> Visas |

## Technology Fee:

$\$ 3.25$ per credit. Maximum of $\$ 50$ per semester.

## Non-Credit Tuition

The maximum non-credit tuition charge for state fundable courses will be $\$ 7.00$ per contact hour. The maximum laboratory fees for these courses are $\$ 10.50$ per contact hour.

## NJ VCC On-Line Course Fee

The New Jersey Virtual Community College on-line course fee will be $\$ 80$ per credit, including tuition, general, and technology fees.

Students in Health Career Programs incur additional costs for items such as uniforms, instruments, liability insurance, and transportation. These costs vary by program and are factored into financial aid benefits.

## SPECIAL FEES <br> Identification Card

First Card free
Duplicate card . $\$ 5.00$
Transcripts
Each requested copy
Parking Permit Fee
First vehicle . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .free
Additional permits . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 5.00$
Replacements . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 5.00$
Returned Check Fee . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 30.00$
Any checks not honored by the bank will incur a returned check fee and will require restitution in cash, money order, or certified check. All future transactions with the college must also be made by cash, money order, or certified check.

## Student Health Insurance

The State of New Jersey requires that all full-time students maintain health insurance coverage that provides basic hospital benefits. Full-time students ( 12 credits or more) will automatically be billed for medical insurance coverage. The plan is specifically designed for students and is offered at a reasonable premium. Students who already have health/hospital insurance and do not wish this coverage may request a waiver of the insurance fee. A waiver form will be available at the time of registration. You must complete the form and provide your insurance carrier's name and address and your policy number. Upon receipt of the form, the fee will be waived and/or payment refunded.

Part-time students ( 11 credits or less) are offered the option of purchasing a medical benefit plan through the College.

Specific information is provided in a brochure available through the Bursar's Office (A-229) or the Health Services Office (B-101).
INDIVIDUALS ARE ADVISED TO READ THE POLICY CAREFULLY FOR AN EXPLANATION OF COVERED EXPENSES.

## Change of Registration Fee

Afee of $\$ 20.00$ is charged for a change of registration initiated by the student. Course cancellation by the college will not require payment of this fee.

## Stop Payment

Students who issue STOP-PAYMENT authorization against checks paid to the college for tuition, fees, and other services are held responsible for such payment. Areturned check fee for such stop payment authorizations will also be assessed. Once the outstanding financial obligations have been met in the Office of the Bursar, withdrawals and other such termination notices may be processed in the Counseling Center (A-118). Students must
make contact with a counselor to sign a Student Transaction Withdrawal Form to clear their academic records. Such withdrawals will be processed in accordance with posted college deadlines for withdrawal.

## RESIDENCY REQUIREM ENTS

According to regulations of the State of New Jersey (N.J.A.C. 9A:5), tuition charges are determined by the student's permanent place of residency, or domicile. Aresidence established solely for the purpose of attending a particular college cannot be defined as a person's true, permanent domicile (home). To be considered a resident of the State, a student must have resided in New Jersey for a period of 12 months before enrolling at a public college in this State. To be considered a resident of Bergen County, a student must be a State resident as defined above, and must show proof of having a permanent residence in the County. The Office of Registration \& Student Information Services of Bergen Community College must make a determination of the residency status of students, and, as such, reserves the right to require students to show proof of residency prior to enrolling.

## When Do You Prove Residency?

Residency should be proven at registration or prior to the start of the semester/session. If residency is not proven, you will be charged at the out-of-county or out-of state rate. Once the semester/session has begun, proof of residency can be submitted for the subsequent semester session; however, tuition charges will not be adjusted for the current term.

## How Do You Prove Residency?

U.S. citizens or permanent residents should submit to The Office of Registration \& Student Information Services:

One of the following in your name:

- A copy of your valid Driver's License/Permit
- A recent Tax, Water or Utility Bill
- A copy of a current Lease or Deed
- A Bergen County ID Card (can be obtained at the County Clerk's Office in Hackensack, Room 119--
Phone (201) 646-2106.


## AND

If you are an independent student: A copy of your current and previous year's New Jersey 1040 Income Tax form

## OR

If you are a dependent student: A copy of your parents'or legal guardian's current and previous year's New Jersey 1040 Income Tax form.

All students on non-immigrant visas are charged at a non-immigrant visa rate which is equivalent to the out-of-county rate. All students will be asked to submit evidence of residency. Priority in admission will be given to Bergen County residents.

## Out-of County

Out-of-county residents may pay in-county rates if they present with their tuition payment a completed out-of-county chargeback. The forms and instructions for a chargeback are available
at the Bursar's Office, (A-229) and at the Admissions \& Registration Service Window (A-129). Depending upon home county requirements, a new chargeback will be needed for each academic year, or in some cases, for each semester.

## WITHDRAW ALS AND REFUNDS

Astudent cannot be certified as having been officially withdrawn from the college or from individual courses and cannot receive any refunds unless approval from the Division of Student Services has been obtained.

Failure to officially withdraw from the course which a student is no longer attending will result in an "E" grade. An "E" grade will be calculated into your grade point average as a failing grade. The student must initiate the official withdrawal process from the college or from individual courses at the appropriate office within the Division of Student Services depending on the student's status. (Please see below.) All students are responsible for being aware of refund and last day to withdraw deadline dates which are clearly stated in the Academic Calendar.

Astudent transaction form must be completed to request a refund or to officially withdraw from a course without a penalty. All student violations, especially Bursar holds, Dean's holds, and Financial Aid holds, must be resolved before a request for refund or withdrawal can be processed. Students should retain their copy of the withdrawal form in their records. Not attending class, informing the instructor of withdrawal, or stopping payment on a check does not constitute official withdrawal notification. All students are liable for payment of tuition and fees due up to the date on which the withdrawal/drop form is officially completed within the refund period.

Refunds are based on the official starting date of the semester, not on the student's actual class attendance. Appeals for refunds are considered only under extreme circumstances, and these are requested through the Counseling Center. Students should allow four to six weeks for refund checks to be mailed by the Bursar.

## Student Status

EOF students
International students on visas
All students enrolled for American Language classes

All students receiving financial aid or student bank loans and Veterans

On probation or reinstated from suspension/dismissal

Allied Health \& Nursing students withdrawing from one or more courses
Degree seeking students in none of the above categories withdrawing from some of their courses

All non-matriculated students withdrawing from courses

## All appeals for refunds or

late official withdrawals

| Place | R00m |
| :---: | :---: |
| EOF Office | A-126 |
| Counseling Center | A-118 |
| Counseling Center | A-118 |
| Financial Aid Office | A-123 |
| Counseling Center | A-118 |
| Counseling Center | A-118 |
| Office of Registration and Student Information Services | .A-129 |
| Office of Registration and Student Information Services | .A-129 |
| Counseling Center . | A-118 |

## Refunds

Refunds are made on tuition and course fees only. The procedure for withdrawing from a class or classes is the same as withdrawing from college. Tuition refunds in full or part will be made if the student has completed the appropriate form with a counselor in the Division of Student Services. Refunds, if granted, will be made at percentages, based on actual date of withdrawals as follows (see Academic Calendar):

Withdrawal before the scheduled opening date of semester or session

Withdrawal during first week* after scheduled opening date of semester or session

| Fall-Spring Semester | Summer |
| :--- | ---: |
| $100 \%$ | $100 \%$ |
|  |  |
|  |  |
|  |  |
| $75 \%$ | . . . . . . . . . . . . . . . . . . $50 \%$ |

Withdrawal during second week* after scheduled opening date of semester or session session

Withdrawal during third week* after scheduled opening date of semester or session

Withdrawal after completion of third week* after scheduled opening date of semester or session

## Pro-Rata Refunds

Refunds are computed for students who are attending Bergen Community College for the first time and receive Federal (Title IV) Financial Aid and withdraw from all classes between the end of the first $60 \%$ ( 9 weeks) of the period of enrollment.

## Recalculation of Federal Pell Grants

The Financial Aid Office will recalculate Federal Pell Grants and other Financial Aid awards for changes in enrollment status that occur during the Tenth Day reporting period for each semester or payment session.

## Federal Refunds

Refunds are computed for the students who are not affected by the Pro-Rata Refund Policy who receive Federal (Title IV) Financial Aid and withdraw from all classes according to the following schedule:
$100 \%$ Prior to first day of classes.
$90 \%$ Between the first day of classes and the end of the second week of classes.
$50 \%$ Between the third week and the end of the fourth week of classes.
$25 \%$ Between the fifth week and the end of the eighth week of classes.

## FINANCIAL AID

The College is committed to counseling and aiding students and prospective students with financial need through the Financial Aid Office. The Office is located in Room A-123 and the telephone number is 447-7148.

## Types of Financial Aid

Grants and Scholarships are gift aid. They do not have to be repaid and are the most desirable form of aid. Call the Vice President for Student Services, at 447-7491, for information about scholarships available to Bergen Community College students.
Loans are money given to a student that must be repaid.
Work/Study is money paid to a student for work performed.

## Financial Aid programs available for eligible students include:

- Federal Pell Grant
- Federal Supplemental Educational Opportunity Grant
- Federal Work Study
- Federal Family Education Loan Program (Stafford \& Plus)
- New Jersey Tuition Aid Grant
- New Jersey Educational Opportunity Fund
- New Jersey Garden State Scholars
- New Jersey Distinguished Scholars
- New Jersey Urban Scholars
- New Jersey Class Loan
- Private and Institutional Scholarships
- Veterans'Administration Educational Benefits


## Qualifications for Financial Aid

In order to be considered for all the federal and state aid programs students must:

1. Be accepted as a matriculated student by the Admissions Office.
2. Complete and submit the Free Application for Federal Student Aid (FAFSA). This is the application document used for determining eligibility for both federal and state financial aid programs. Be sure to include Bergen Community College's Title IV code (004736) in the section "What Colleges Do You Plan To Attend?"
3. Complete and submit the Bergen Community College Certification Form which is available at the Financial Aid Office.
4. Meet the standards of Academic Progress as set by the college to conform with federal and state regulations. Acopy of the standards is available at the Financial Aid Office. These standards are in addition to the Satisfactory or Conditional Academic Standing Regulations. (See Academic Policies and Regulations.)
5. Submit the following documents to the Financial Aid Office: a. Acopy of the student's high school diploma b. Acopy of the student's Alien Registration card, if a non-citizen.
6. Have a financial aid transcript sent to the Financial Aid Office by any post-secondary school the student may have attended within the three months prior to attending Bergen Community College.
7. Submit additional documents as indicated on the Student Aid Report such as income tax returns.

## Application Deadlines

Students interested in receiving financial assistance, including student loans, should file an application and must submit all required documentation by the following deadlines:

Fall Applicants, Continuing Students . . . . . . . . . . .May 1
Fall Applicants, New Students . . . . . . . . . . . . . . . . . July 1
Spring Only Applicants . . . . . . . . . . . . . . . November 15
Once a student's financial aid file is complete, it will be reviewed by a financial aid counselor. An award letter will be sent to the student indicating what aid programs have been awarded. If a student wishes to use financial aid funds in the payment of a tuition bill, the student should not register for classes until an award letter has been received.
The application process can take up to six weeks, therefore students are urged to file the FAFSA and submit required documents well before the application deadlines.

## Education Tax Credits Available to Federal Tax Filers

Both the Hope and Lifetime Learning Tax Credits -- which directly reduce the amount of federal income tax owed -- are targeted to help working and middle income families.

Following are guidelines on what the tax credits cover, who qualifies, and IRS sources to contact for information. A Hope Tax Credit of up to $\$ 1,500$ can be claimed for each of the first two years of college or vocational school for each eligible student in a family. The student must be enrolled at least halftime at an eligible educational institution and not have completed his or her first two years of study. The credit is 100 percent of the first $\$ 1,000$ of payments for qualified tuition and fees and 50 percent of the second $\$ 1,000$. The goal of Hope is to make it possible for all Americans to afford the cost of the first two years of a college education. In most states, the Hope credit will cover the tuition and fees of a community college education. There is no limit on the number of eligible students who can claim a Hope credit in a household in any given year.

Example: Amarried couple with an adjusted gross income of $\$ 60,000$ with two children in college at least half time -- one a freshman at a community college with a tuition of $\$ 2,000$ and the other a sophomore at a private college with tuition of $\$ 11,000$. Using the Hope Scholarship Tax Credit, this couple can cut their taxes by $\$ 3,000$.

The Lifetime Learning Tax Credit picks up where Hope leaves off and is available to vocational, college, graduate and professional students; adults who want to upgrade their job skills or acquire new ones or pursue another course of study; and even to students taking a single course as long as it is job related. Filers can claim a Lifetime Learning Credit up to $\$ 1,000--20$ percent of the first $\$ 5,000$ paid in qualified tuition and fees. Ataxpayer can claim only one Lifetime Learning credit per tax year for the aggregate amount of the qualified tuition and fees of those students in the family for whom no Hope credit is claimed. There is no limit, however, on the number of years a taxpayer may claim the Lifetime Learning tax credit.

Examples: Ahomemaker in a family with adjusted gross income of $\$ 70,000$ enrolls in a graduate teacher training program at a public university -- tuition $\$ 3,500$. Using the Lifetime Learning Credit, her family's income taxes are cut by $\$ 700$. Or a married auto mechanic with family income of $\$ 32,000$ goes back to school to take some computer courses to improve job skills. The tuition is $\$ 1,200$-- the tax savings, $\$ 240.00$.

Both tax credits are phased out for joint filers who have between $\$ 80,000$ and $\$ 100,000$ of adjusted gross income, and for single filers who have between $\$ 40,000$ and $\$ 50,000$ of adjusted gross income.

Taxpayers cannot claim both credits for the same student in one tax year, even if the student is a sophomore at the beginning of the tax year and a junior in the second half of the tax year.

Families will be able to claim the Lifetime Learning tax credit for some members of their family and the Hope tax credit for others who qualify in the same tax year. Qualified expenses covered by the tax credits are tuition and required fees, less any grants and scholarships that are received tax free. Room, board, books and supplies are not covered.

To take advantage of the Hope and Lifetime Learning Tax Credits; taxpayers must complete and submit IRS form 8863 with their federal tax return. For more information, call the IRS Help Line at 1-800-829-1040, read IRS publication 970 or visit the Treasury Department's website at www.irs.gov.


# Academic Policies \& Regulations 

## ACADEMIC RECORDS

The Office of Registration \& Student Information Services issues an academic record of each student. Students receive specific and cumulative reports of their achievement and status at the end of each semester or session.

## Verification or Certification of Student Status

Verification or certification of student enrollment status can be done only with the student's signed consent. Verification or certification can be requested at the Service Window (A-129) of Registration \& Student Information Services by filling out a Verification Authorization form, or by mailing or faxing a request to Registration \& Student Information Services containing the student's signed consent. The process usually takes about three to five working days, except during in-person registration periods, when there may be some delay. Documents requiring the College Seal cannot be returned to the student, they must be mailed directly to the requesting agency or organization.

## GRADING

Students are responsible for their own academic progress and standing, for preparing and participating in those classes in which they are enrolled, and for attaining the best possible record. The instructors assign a grade based on a composite of course elements which represents an evaluation of performance, scholarship, and competence of the student.

## Mid-Semester Grades

At the mid-semester point, students may confer with their instructors regarding their academic performance. Formal midsemester grades are not issued.

## Final Grades

Final grades are assigned by instructors at the end of each semester or session. The Office of Registration \& Student Information Services will issue an academic report reflecting each student's final grade.

## Incomplete Grades

The grade "INC" (incomplete) indicates that a portion of required course work has not been completed and evaluated by the end of the semester due to unforeseen, but fully justified reasons, and that there is still a possibility of earning credit. It is the responsibility of the student to bring pertinent information to the instructor and to reach agreement on the means by which the remaining course requirements will be satisfied. The instructor may not issue the "INC" grade unless it is requested by the student and the conditions for resolving the incomplete are agreed upon in a contract, with the exception of missing the final exam due to an emergency. All grades of "INC" that are not resolved
by the deadline in the academic calendar will be converted to grades of "F."

A student is not eligible to receive a degree until outstanding "INC" grades are resolved either by completion with a passing grade or by acceptance of an " $F$ " (failing) grade. At that time a supplemental graduation check will be done by the Office of Registration \& Student Information Services and the degree awarded if appropriate.

## Repeating of Courses

1. A student shall have the option to repeat once any course in which a grade of $\mathrm{D}, \mathrm{C}, \mathrm{C}+, \mathrm{B}$ or $\mathrm{B}+$ was earned, after the Summer 1975 Session, and only the higher earned grade shall be computed in the grade point average. The lower grade will be converted to a numerical designation.
2. A student shall have the option to repeat an "F" or "E" grade earned after the Summer 1975 Session once. If the student fails to complete the course after two attempts, the student may appeal, in writing, to the appropriate divisional dean, stating any extenuating circumstances which should be considered, for permission to repeat the course again. If the student successfully repeats a course the higher grade shall be computed in the grade point average. The "F" or "E" grade will be converted to a numerical grade. Note: A student who does not successfully complete a course after two attempts may be unable to complete a degree program. Permission to repeat is not automatic.
3. It is understood that a student who earns a "D" grade in a given course generally shall be able to pursue the next higher course. Exceptions should be noted for all Allied Health courses and for selected courses as noted in individual course descriptions.
4. A student may not repeat a course in which a grade of "A," "CBE" (credit by exam), "TR" (transfer credit) or "INC" (incomplete) was received.

## Forgiveness Policy

After ten years of continuous non-attendance, students may appeal through the Academic Standing Committee for a forgiveness of grades. If students meet the following requirements, their previous grades will remain on the official record, but they will start with a new GPA.

- Complete at least 12 college-level credits at Bergen Community College.
- Have a minimum of 2.75 GPA in these new college level courses.
- This policy does not exempt students from basic skills requirements.


## Course Grade Appeal Policy

1. A student raising a complaint or concern about a course grade should discuss the matter with the individual faculty member no later than the first two weeks of the semester immediately following receipt of the grade.
2. If the grade appeal is not resolved, the student should bring the matter to the appropriate department head within two weeks of discussion with the instructor.
3. The department head will investigate the appeal and attempt to resolve the matter as expeditiously as possible. The department head will notify the student either in writing, or orally of the result.
4. If the appeal is not resolved, the student should put the appeal in writing, attaching copies of any supporting information and send it to the appropriate divisional dean within two weeks of hearing from the department head.
5. The divisional dean may consult other faculty in the discipline and the department head and may choose to meet with the student. The dean will notify the student in writing of the resolution. Grade appeals are sometimes a lengthy process and may take several weeks to resolve at this stage. Every effort will be made to notify the student within one month.
6. After receipt of the dean's written response, a student may continue the appeal process by writing to the Academic Vice President. The student should attach copies of all previous correspondence regarding the appeal and copies of supporting documentation.
7. The Academic Vice President will consult all parties involved in the appeal process and may choose to meet with the student. Grade appeals may also take several weeks to resolve at this stage.
8. The Academic Vice President will notify the student in writing of the results of the appeal. Every effort will be made to notify the student within one month.

## AUDITING CLASSES

Students who wish to take courses with the understanding that they will not receive grade or credit for them may do so as auditors.

- An application for audit status must be obtained from the Office of Registration \& Student Information Services.
- Auditors are subject to the same tuition and fee structure as credit students.
- Once enrolled as an auditor, a student may not change to credit status, nor may a student who is enrolled for credit change to audit, unless such a change is requested prior to the end of the third week of instruction.
- The "AU" grade will be recorded on college transcripts for an audited course. This is an administratively assigned grade which indicates a student has purchased a seat for a particular class. It does not denote mastery of subject material.
- Audited courses do not satisfy prerequisites, or count towards the student's load for financial aid or sports eligibility purposes.



## The follow ing grades are administratively assigned, and are not assigned by instructors:

| Grade |  | Point Value | Description | Included in <br> Attempted Credits | Included in <br> Earned Credits |
| :--- | :--- | :--- | :--- | :--- | :--- |
| AU | $=$ | None | Auditor | Yes | No |

Grades of A, IN, T, and CBE cannot be repeated. Grades of B, C, D, E, AU, and F may be repeated only once.
The higher grade is retained and the lower grade is marked " R " and is not figured in the grade point average.

## How to Calculate your Grade Point Average (GPA);

As indicated before, grades of $A, B, C, D, E$ and $F$ are assigned a point value ( $A=4$ points, $B=3$ points, $C=2$ points, $\mathrm{D}=1$ point, $\mathrm{E}=0$ points, $\mathrm{F}=0$ points). Your Grade Point Average is calculated by multiplying the point value of the grade you received in each course by the number of credits offered for the course. The resulting number is called "total quality points." Next, add up the total quality points and divide by the number of credits. Be sure to include only the grades of $\mathrm{A}, \mathrm{B}$, C, D, E and F. The other grades do not affect your Grade Point Average.

Example: Astudent receives the following grades over the course of two semesters at Bergen Community College:

|  | Point | Credits | Total |
| :---: | :---: | :---: | :---: |
| value of | for | Quality |  |
| Grade | grade | Course | Points |

## Semester I

| U.S. History | C | 2 | X | 3 | $=$ | 6 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | ---: | :--- |
| Foundations of Phys.Ed. | B | 3 | X | 2 | $=$ | 6 | 12 |
| Speech Communication | A | 4 | X | 3 | $=$ | 6 |  |
| Statistics | C | 2 | X | 3 | $=$ | $=$ | 3 |
| English Composition I | D | 1 | X | $\frac{3}{14}$ | $=$ | Total Credits | 33 |
|  |  |  |  | Total Quality Points |  |  |  |

This student received a Grade Point Average of 2.36 for Semester I. This was arrived at by dividing the "total quality points"(33) by the total credits (14). We would say that the student's semester Grade Point Average was 2.36.

## Semester II

| English Composition | F | 0 | X | 3 | $=$ | 0 |  |
| :--- | :--- | :--- | :--- | :---: | :--- | :---: | ---: |
| U.S. History II | B | 3 | X | 3 | $=$ | 9 |  |
| General Biology I | A | 4 | X | 4 | $=$ | 16 |  |
| Music Appreciation | C | 2 | X | $\frac{3}{13}$ | $=$ | Total Credits | $\frac{6}{31}$ |
|  |  |  |  | Total Quality Points |  |  |  |

The student received a Grade Point Average of 2.38 for Semester II (31 divided by 13).
A "Cumulative Grade Point Average" for this student is arrived at by adding the "Semester I Total Quality Points" (33) to the "Semester II Total Quality Points" (31). The resulting figure is called the Cumulative Quality Points. In our example, the Cumulative Quality Points add up to " 64 ."

Add the "Semester I Total Credits" (14) to the "Semester II Total Credits" (13). The resulting figure is called "Cumulative Credits."

Divide the Cumulative Quality Points by the Cumulative Credits. The resulting figure is called the "Cumulative Grade Point Average" as it reflects all of the grades taken at BCC. Therefore, for the purpose of our example, it can be said that this student has a "Cumulative Grade Point Average" of 2.37: 64 Cumulative Quality Points divided by 27 Cumulative Credits $=$ 2.37 Cumulative Grade Point Average.

Students wishing further assistance in understanding their grade point average should contact the Counseling Center in Room A-118.

## ACADEMIC HONORS

## Dean's List

The Dean's List is official recognition by the faculty of outstanding academic accomplishment. Any matriculated student who has maintained a cumulative scholastic average of 3.50 or better (minimum 24 credits) qualifies for this honor. The Dean's List is compiled each semester several weeks after grades are processed. (Students with unresolved "INC" grades at the time of compilation are ineligible.)

## Honors List

The Honors List is official recognition by the faculty of outstanding academic achievement during the course of one semester. Any matriculated student who has attained a scholastic average of 3.50 or better (minimum 12 credits) qualifies for this honor. The Honors List is compiled each semester several weeks after grades are processed. (Students with unresolved "INC" grades at the time of compilation are ineligible.)

## Alpha Beta Gamma

Alpha Beta Gamma is a National Business Honor Society that was established in 1970 to recognize and encourage scholarship among college students in business curricula. To achieve this goal, Alpha Beta Gamma provides leadership opportunities, forums for the exchange of ideas, and the stimulation of interest in continuing academic excellence. Since its founding, over 15,000 students from public and private two year colleges have been initiated in the society.

To be eligible for membership in Alpha Beta Gamma, a student must be enrolled in a business curriculum in a junior or community college, or a two year accredited program within a college or university. The student must have completed 15 credit hours with at least 12 hours taken in courses leading to a degree recognized by the institution. In addition, a student must have established academic excellence of a 3.0 GPAor its equivalent in business courses, as well as a 3.0 overall average.

## Phi Theta Kappa

Phi Theta Kappa, the International Honor Society of the Two-Year College recognized by the American Association of Community Colleges, is represented at Bergen Community College by the Alpha Epsilon Phi Chapter. Its purpose is the recognition of academic excellence and the promotion of scholarship, fellowship, leadership, and service in the two-year college. Students must meet the following criteria for membership and retention.

## A. Eligible Degree Programs

Students in the following degree programs are eligible for continued and new membership: AA Degree, AS Degree, AAS Degree.
B. Registration

1. New Members. Qualified students are selected from those who are registered for the fall or spring semesters. Membership is not open during the summer session. Students must be invited to join by the Faculty Advisor. Students will receive a letter in the mail if they qualify.
2. Continued Membership. Qualified students will retain membership as long as they are actively registered fall and spring semester between induction and graduation. PTK members are not required to attend summer sessions.
C. Grade Point Average
3. New Members. Students must achieve the following cumulative GPA based on degree credits attempted or earned:

| Credits <br> Category | Qualifying <br> GPA* $^{*}$ | Degree Credits <br> Attempted** | Degree <br> Earned** |
| :---: | :---: | :---: | :--- |
| 1 | 4.0 | $12-15$ | $12-15$ |
| 2 | $3.90-4.00$ | $16-31$ | $16-31$ |
| 3 | $3.80-4.00$ | $32-47$ | $32-47$ |
| 4 | $3.65-4.00$ | $48+$ | $48+$ |

Where the number of degree credits earned and number of degree credits attempted fall into different categories, the qualifying GPA is determined by the category that has the least number of credits.
2. Continued Membership. Students must maintain a cumulative GPA of at least 3.50. Students who fall below a 3.50 cumulative grade point average will lose their membership in the Alpha Epsilon Phi Chapter.
3. All Grades are considered. Grades in all degree and nondegree courses from all semesters and sessions during which time the student took course work at Bergen Community College are considered in determining the qualifying cumulative GPA of new members and the retention of continuing members.
4. Transfer Students. Students who have transferred to Bergen Community College may apply for consideration for membership using the "Degree Credit Earned" category. Each student must be assessed on a case-by-case basis and must make an appointment with the Phi Theta Kappa advisor or co-advisor.
5. Leave of Absence. Students who take a leave of absence must notify the Phi Theta Kappa advisor in writing on their return to reactivate member status.
D. The Society

Alpha Epsilon Phi is an active society on campus. To maintain membership within the Chapter, attendance at meetings and/or service is necessary. Service equates to approximately eight hours per year, and the type of service changes from year to year depending on the chapter's executive committee. There are no excused absences from required meetings; missing a meeting results in two hours of service. During the past ten years, the annual time devoted to Phi Theta Kappa by a member is approximately 18 hours.

[^1]
## DEGREE REQUIREMENTS

Bergen Community College offers degree programs leading to Associate of Arts (AA), Associate in Science (AS), and Associate in Applied Science (AAS) degrees. A student is required to complete a minimum of 64 degree credits for graduation. The college also offers a number of one year certificate programs and short-term certificates of achievement.

A student may be required to take courses which are not part of the curriculum either to remove deficiencies or to upgrade skills as indicated by the results of the Basic Skills Placement Test. Students in all degree programs and in certain certificate programs are required to successfully complete a course in basic algebra if their placement tests indicate this need.

To be eligible for an Associate Degree (AA, AS, AAS) or a certificate, a student must be matriculated and in good standing, and have completed the number of degree credits specified for the particular curriculum with a 2.00 or better cumulative grade point average. The student must also have satisfied or waived any course requirements resulting from the Basic Skills Placement Test.

A student must be officially enrolled and matriculated at the college during the regular semester or summer session in which the degree will be conferred.

## Application for Degree and Graduation

It is the responsibility of the student to apply for their degree or certificate by completing an Application for Degree, which can be obtained from the Office of Registration and Student Information Services Window, A-128. Degrees are conferred in accordance with the calendar shown :

## If completing <br> requirements by:

December (Fall Semester)
May (Spring Semester)
August (Summer I/Summer II)

## Must submit application by:

End of August End of November End of May

If, after filing the application, a candidate is unable to complete the degree requirements by the date indicated on the student's original application, the student should notify the Office of Registration and Student Information Services immediately. The Application for Graduation will not be automatically extended. The candidate will be required to submit a new application for the semester/session of anticipated completion. Please note that, although degrees are awarded at various times of the academic year, there is only one Commencement ceremony, which takes place in May (please check the academic calendar for exact date). Diplomas will be withheld from all students who have outstanding holds and/or violations.

Students wishing to participate in the May Commencement ceremony must notify the Director of the Student Center by March 3. Lists for graduation are compiled as of this date.

## Allocation of Credit Hours to Courses

Generally, one credit hour is assigned for each 800 minutes of lecture-discussion or for each 1600 to 2400 minutes of laboratory experience during a semester or session. (Certain clinical experiences, cooperative education, or courses delivered through non-traditional means may be assigned credit by different formulas.)

## Course Load and Restrictions

## Full-Time Students

A full-time program consists of 12 to 18 credit hours of course work per semester. A program of more than 18 credit hours must be approved by the Dean of Student Services.

## Part-Time Students

A part-time program consists of 1 to 11 credit hours of course work per semester during the fall or spring semesters.

## Summer Session Students

All students are restricted to a maximum of 8 credit hours during each summer session.

## Change of Curriculum

Astudent desiring a curriculum change should discuss the possibilities with his or her counselor to determine degree requirements, prerequisites and the appropriateness of the contemplated new curriculum. A student may change curriculum by the following procedure:

1. Arrange an appointment with a counselor in the Division of Student Services
2. Obtain the approval of the counselor on the appropriate form for the curriculum change he or she wishes to make
3. Make curriculum changes by the date listed in the Academic Calendar for the succeeding semester.

Where seats in any curriculum are limited, priority will be given to Bergen County residents. Curriculum changes requested after the completion of 32 credits may require the approval of the Office of the Vice President of Student Services.

## Graduation/Transfer Rates

In compliance with the Higher Education Amendments of 1998, Bergen Community College collects information on graduation and transfer of its students. Copies of a report on graduation and transfer rates may be reviewed/obtained in the Research and Planning Office, the Library, the Admissions Office, and the Office of Registration and Student Information Services.

## ACADEMIC REGULATIONS

## Academic Conduct

In cases when students are charged with academic irregularities, such as dishonest conduct during an examination or plagiarism in the preparation of an essay, laboratory report, or oral presentation, the instructor has the authority to:

1. Give the student a failing grade for the assignment if, within the course's total requirements, non-completion of that assignment would not constitute sufficient ground for failing the course; or,
2. Give the student a failing grade for the course if, within the course's total requirements, non-completion of that assignment would preclude the student's passing the course.

The instructor must make a written report to the Vice President of Student Services of whatever action he or she has taken and its justification. In turn the Vice President of Student Services must send a copy of the instructor's report to the student. Within ten days of receipt of such notification, the student may appeal the decision in writing to the Vice President of Student Services. The Vice President of Student Services shall be responsible for maintaining a cumulative file of all infractions of academic honesty.

Two such offenses shall be sufficient grounds to suspend a student from the college. Thus, should it be verified that a student has committed a second such offense, the Vice President of Student Services will report the matter to the Committee on Academic Standing and recommend an appropriate action.

## Satisfactory Academic Standing

Any student who maintains a grade point average based upon the following scale shall be classified as a student with satisfactory academic standing:

| Cumulative Credits | GPA |
| :--- | ---: |
| $12-23$ credits | 1.7 |
| $24-35$ credits | 1.8 |
| $36-47$ credits | 1.9 |
| $48+$ | 2.0 |

## Conditional Academic Standing

Any degree-seeking student, whether full or part-time, who fails to achieve the minimum grade point average as stated above shall be classified as a student with conditional academic standing and will be sent a letter to that effect by the Office of Registration and Student Information Services.

Conditional academic standing is a warning that a student's cumulative grade point average is unsatisfactory and that the student will be academically suspended unless a minimum grade point average is met. Students on conditional academic standing will not be permitted to register either by mail or in person until they see an advisor in the Counseling Center.

## Removal of Conditional Academic Standing Status

Any student who, after the end of the conditional semester, meets the grade point average for credits attempted as specified above shall be classified as a student with satisfactory academic standing and will be notified of such standing by the Office of Admissions \& Registration.

## Academic Suspension

A student with conditional academic standing who fails to achieve the required grade point average at the end of his/her conditional academic standing semester will be placed on academic suspension. Suspended students will be reclassified in a status of unsatisfactory academic standing.

A student on academic suspension will not be allowed to register for one semester (fall or spring) and will be classified as a student with unsatisfactory academic standing. The suspended student will not be permitted to register for any intervening summer sessions.

Notification of academic suspension will be sent to the student by the Office of Registration and Student Information Services along with conditions for seeking reinstatement.

## Academic Dismissal

A student reinstated after academic suspension will be given conditional academic standing. A student who fails to meet the minimum grade point average at the end of the conditional semester will be dismissed.

## Reinstatement After Ac ademic Suspension or Dismissal

After being suspended/dismissed a student is eligible to make application for reinstatement after one semester (excluding Summer Sessions). If reinstated, the student will be reclassified as a student with conditional academic standing. All reinstated students must see a counselor before registration.

Arequest for reinstatement can only be initiated by a written application to the Committee on Academic Standing in accordance with the posted college deadline. The Committee on Academic Standing shall review the reinstatement application and render a decision. There is a $\$ 20$ fee for the reinstatement application.

## Appeals of Student Status

A student who desires to appeal his/her status may do so by making an application for reinstatement in the Counseling Center, Room A-118. If a student is placed on suspension at the end of the fall semester, the reinstatement, if approved, would be for the following fall semester. If a student is placed on suspension at the end of the spring semester, the reinstatement, if approved, would be for the following spring semester. Deadline date for filing appeals are December 1, for the spring semester and April 1, for the fall semester. Appeal forms are available in the Counseling Center, Room A-118.

## Committee on Academic Standing

The Committee on Academic Standing is comprised of faculty members from each of the divisions within the college and student government representatives. It is chaired by the Vice President of the Division of Student Services. The committee reviews all reinstatement applications and special appeals and renders decisions. The committee also takes responsibility for reviewing and recommending policies and procedures pertaining to the overall academic regulations of the college. Appeals to the committee will be considered only if initiated within a two year period of the end of the semester in which the appeal issue occurred.

## Class Attendance

All students are expected to attend punctually every scheduled meeting of each course in which they are registered. Attendance and lateness policies and sanctions are to be determined by the instructor for each section of each course. These will be established in writing on the individual course outline. Attendance will be kept by the instructor for administrative and counseling purposes.

## Suspension of Classes

Students should listen to local broadcast stations in the event of emergencies when classes may have to be suspended; they should not telephone college offices or broadcast stations for information. (See Emergencies in the Student Life section.)

## Absence of Instructor

Students are expected to wait twenty minutes for a faculty member to come to class. If at the end of twenty minutes, the faculty member does not come, the students should sign an attendance sheet which indicates the course, date, and time. A student should deliver the attendance sheet to the divisional office if between $9 \mathrm{a} . \mathrm{m}$. and $5 \mathrm{p} . \mathrm{m}$. or to the evening office if before 9 a.m. or after 5 p.m. Students cannot be penalized by faculty for not waiting longer than twenty minutes.

## Procedure for Student Complaints About Faculty

1. A student raising a complaint or concern about an individual faculty member should discuss the matter with the involved faculty member.
2. If it is not resolved, the student should then bring the matter to the appropriate department head.
3. The department head will hear both sides orally and attempt to resolve the issue as expeditiously as is possible (usually within one week).
4. The student will be informed by the department head as to the outcome. If the student is still not satisfied, the student should put the complaint in writing addressed to the appropriate divisional dean.
5. The matter then becomes a formal complaint or concern and will be dealt with as such.
a. Other faculty in the discipline may be consulted by the involved faculty member and divisional dean.
b. Counselors from the Counseling Center may be consulted by any involved party.
c. Ameeting of all concerned may be set up.
d. Recommendations may be solicited orally or in writing from each participant. The student will be informed by the divisional dean as to the outcome.
6. If the student is still not satisfied, the student should refer the matter to the Academic Vice President in writing.

## ACCEPTABLE INFORMATION TECHNOLOGY USE AT BERGEN COMMUNITY COLLEGE

Bergen Community College promotes the responsible use of Information Technology (voice, video, data). Individuals who accept the privilege of using college property (facilities, resources, equipment or real estate) also accept the agreements that have been established for their use and are expected to adhere to them. Even though the primary purpose of the Bergen Community College Information Technologies programs is educational, the college also supports economic development and the quality of life in Bergen County.

## Code of Conduct for BCC Information Technology Users

Bergen Community College does not attempt to define all acceptable or unacceptable uses of the network. However, it does rely on the honesty, integrity and respect for the rights of others with a conscious effort to be of service to the community when utilizing Information Technology resources and the Telecommunications Network. Accounts issued to individuals are intended for the sole use of that individual and are non transferable. Owners are responsible for all usage of their assigned accounts.

## Examples of Acceptable Use Encouraged by BCC

1. Gathering and providing research material and data
2. Analyzing data
3. Preparing course materials
4. Enhancing coursework
5. Enhancing educational approaches and teaching methods
6. Obtaining and disseminating college related knowledge
7. Developing and administering targeted demographic surveys

## Examples of Unacceptable Use Prohibited by BCC

1. Using the network for any illegal activity including but not limited to violations of copyrights, software agreements and other contracts
2. Using the college systems for commercial or profit-making purposes
3. Altering system software or hardware configurations
4. Gaining unauthorized access to resource entitles, including unauthorized use of others' passwords
5. Invading the privacy of individuals
6. Posting anonymous messages
7. Creating and displaying threatening, obscene, racist, sexist, or harassing material, including broadcasting unsolicited messages or sending unwanted mail
8. Disobeying lab and system policies, procedures, and protocol (e.g. Time limits on workstation usage)
9. Using the network in support of groups outside the college when such use is not in keeping with the mission of the college 10. Using individual web pages not primarily focused on the mission of the college

Bergen Community College reserves the right to monitor its Information Technology resources and Telecommunications Network to protect the integrity of its computing systems, workstations and lab facilities. Individuals who violate Acceptable Information Technology Use at Bergen Community College will be subject to appropriate sanctions.

## BCC WEB SITE GUIDELINES

BCC encourages the use of the Internet by faculty, staff, and students as both an information resource and as a method of communication. In keeping with this, members of the college community may have Web pages on the BCC servers. All Web page developers are expected to act responsibly and to adhere to both the BCC Acceptable Technology Use Guidelines and to the procedures established by the College for Web pages. In particular, the college expects that all members of the college community will (1) obey all applicable federal, state, and local laws, including copyright law; (2) adhere to fair uses guidelines; (3) give proper attribution of any sources; (4) not use college hardware, software, or communications for personal profit; and (5) not place any information on the Web pages which reflects negatively on the college or any member of its community. Further, all Web page developers are expected to make every effort to ensure that the BCC Web site, and all pages contained within it, is accessible to the visually impaired. The college has the right to monitor all Web pages placed on its servers and remove any that violate the college's guidelines or procedures. Further, the college has the right to prohibit access to its computing resources to anyone who violates either the guidelines or subsequently established procedures.

## BCC Web Site Procedures

In the following procedures an official page is defined as one which primarily contains information normally found in the college catalog, such as courses of study, and course descriptions.

## 'Official' Web Pages

## 1. BCC Home Page

The BCC home page is the college's principal Web site. It is the responsibility of the Office of Public Relations to establish style and appearance guidelines for the home page and other official pages. Any information to be included on the official college home page is to be approved by and routed through this office.

## 2. Division, Department, and Curriculum Web pages

Each division, department, and curriculum is expected to have its own home page. These home pages will be links from the BCC home page. These home pages are to have a designated Web site manager who is identified on the Web site by name, office, and
email address; are to be updated on a regular basis so that all information is relevant, timely, and appropriate; contain the date created or last revised; have appropriate releases or copyright permissions for all photographs, artwork, or text; follow the style guide established by the Office of Public Relations for use of BCC logo, fonts, and overall layout; verify and update all links regularly; be approved initially by the Office of Public Relations before being uploaded to the college servers. Division, Department, and Curriculum home pages will be limited by the resources available. Subsequent alterations and additions to the Division, Department, and Curriculum home pages are subject to periodic review by the Office of Public Relations.

## 'Unofficial' Web Pages

## 1. Faculty/Staff and Course Home Pages

Full-time and adjunct faculty and staff are encouraged to have their own home pages. When developing home pages faculty and staff are to adhere to the following: Pages should be professional, not personal. Pages should not refer in any way whatsoever to any personal profit making enterprise such as private practice, or consulting. There must be signed releases or copyright permissions for any artwork, photographs, video or audio segments, or quoted text. Pages should fully identify the faculty or staff member giving name, position, office location, office phone number, and email address. It is suggested that the Web page also include work schedules or office hours. Other appropriate information may be publications, presentations, and professional affiliations. If the page links to a personal home page the faculty or staff member is responsible for the appropriateness of the information on the personal home page. Pages may not contain any material that in any way violates federal, state, or local law or material that reflects negatively on the college or any member of its community. All information on the home pages is to be timely and relevant. Pages should be updated regularly and links checked for accuracy.

Faculty are also encouraged to develop course Web sites, with information such as course outlines, student assignments, lecture notes, PowerPoint presentations, and homework answers. Faculty, staff, and course pages may be limited by available resources. Faculty who need assistance developing a home page or course Web sites should consult the Center for Instructional Technology. Staff who need assistance with Web pages should consult the Department of Information Technology. Staff in either of these offices can assist the faculty or staff member in uploading pages to the server or provide instructions for the faculty or staff member to do so him or herself.

## 2. Student Organization Home Pages

Official student organizations, that is, those recognized by the Office of Student Activities, may have home pages on a BCC server. Student organizations that wish to have a page loaded on the servers are to have approval from the Director of Student Activities; designate a member of the club as Web page manager
and the Web page manager must be identified on the page; commit to updating all information in a timely fashion; obey all federal, state, and local laws, including copyright law; adhere to fair use guidelines; and give proper attribution of any sources; not post anything which reflects negatively on the college or any member of its community; verify regularly that all links from their page are active. Club home pages will be limited by available resources.

## 3. Individual student home pages

Individual students may only have home pages on the BCC server when required as part of a course. The faculty member for the course is responsible for establishing standards for student Web pages and for ensuring that students have adhered to these standards before the pages are uploaded to the BCC servers. Student home pages will be limited by available resources.

www.bergen.cc.nj.us

# StudentLife 

The Office of Student Life
provides and promotes
campus programming activity that is
representative of the student population
and is consistent with the mission of the college and the Division of Student Services.

The programs enhance student success, enrich the college experience, and help encourage a sense of community while providing opportunities
for leadership and


## CLUBS AND STUDENT DEVELOPMENT

Students at Bergen Community College are encouraged to enrich their college experience through participation in a variety of activities including Student Government Council, Student Activities Board, clubs, and organizations. There are many active clubs on campus that appeal to a variety of interests of students. To find out how to become involved in these clubs, call the Office of Student Life at (201) 447-7215 or visit Room A-115.

## Afric an Student Coalition

Students interested in their African heritage are welcome.
Programs will be presented to delve into their roots and history.

## Alpha Beta Gamma

Alpah Beta Gamma is a National Business Honor Society that recognizes and encourages scholarship among students in business curricula.

## Anime

Anime is a student club that focuses on learning more about the Anime type of drawing style and illustration, derived mostly from the Japanese artist. Story lines are strongly influenced by issues of technology, religion, and the environment, as well as teaching about choices, leadership, and helping others.

## Arab Student Association

Students of Arab decent or interested in Arab culture are invited to join this organization.

## Art Guild

The Art Guild sponsors an annual juried art show, exhibits student work on campus and visits museums in the metropolitan area.

## Asian Student Association

The Asian Student Association was organized in September of 1989. The main purpose of the association is to promote activities which focus on Asian cultures and issues throughout the academic and ethnic community served by Bergen Community College. All student of the college are invited to join its membership and participate in its activities.

## Bergen Indian Student Association

Students interested in Indian culture of Indian descent are encouraged to become involved with this association.

## Bergen Paralegal Club

The Bergen Paralegal Club is open to any students studying or interested in the Legal Assistant field.

## Biology Club

Students studying or interested in the biology field are welcome to join this club.

## Black Student Union

The Black Student Union sponsors social and cultural events aimed at increasing awareness about the rich heritage of AfricanAmerican people. The club also promotes political awareness with visits from local government officials.

## Caribbean Club

The Caribbean Club provides a support system for students of Caribbean descent or origin. The club visits a variety of exhibits on Caribbean art, books, and music, and sponsors events to promote the cultural richness of this region.

## Chess Club

Like to play chess? This is the club for you! Weekly chess matches are held at BCC and the club participates in collegiate tournaments.

## Christian Fellow ship

Members of the Christian Fellowship conduct bible readings, hold discussions on religious themes, and view religious movies. All are welcome.

## Criminal J ustice Club

Comprised of students from all disciplines, the Criminal Justice Club is dedicated to the development of greater understanding of the complex problems and responsibilities facing the criminal justice system in a multicultural society. The club sponsors speakers with specialized backgrounds and trips that bring students into contact with institutions within the three areas of the system. An emphasis is placed on projects that promote career opportunities for the BCC student.

## Dance Club

Students studying or interested in pursuing the art of dance are welcome to join this club. An annual dance performance is held each spring.

## DECA

DECA, the Distributive Education Club of America, is a nationally recognized business club which sponsors a competition aimed at developing business skills in marketing, retailing, finance and human relations. Each year, students compete locally and on the national level in events which test their business skills.

## Dental Hygiene Club

Students in the Dental Hygiene Club sponsor an annual open house, help promote dental care awareness on campus, and participate in the New Jersey Dental Hygiene meetings in order to remain current with the latest developments in dental health care.

## Early Childhood Education Club

The Childhood Education Club meets to discuss issues in child care. Each year, the club sponsors forums on children's rights and many of the issues that confront the child care profession today.

## Environmental Club

The Environmental Club is one of BCC's more active organizations. Students interested in preserving the environment, recycling, environmental issues and concerns are welcome to join this club. Highlights during this past year were raising monies for Walden Woods, a two week event celebration for Earth Week and a trip to Walden Pond.

## Filipino American Association

Students share their culture and experiences with the college community.

## French Lover's Association

Students are involved in activities which explore the cultural contributions of French speaking nations: France, Canada, West Africa, Belgium, Switzerland, etc. Film series, trips to the theatre, restaurants, museums, ballets and programs on holidays, highlight the year.

## Hillel Club

The purpose of the Hillel Club of Bergen Community College is to give members the opportunity to explore various dimensions of Jewish history, philosophy, and culture and to participate in Jewish cultural events. All members of Bergen Community College are invited to participate.

## History/Political Science Club

The History/Political Science Club is open to any students studying or interested in this academic arena.

## Horticulture Club

Students who want hands-on-activity in working with plants and cut flowers are invited to become members in the Ornamental Horticulture Club. The club plans and executes a variety of floral displays and garden designs. Members make visits to botanical gardens to explore the multitude of flora and fauna that exist in nature.

## Hotel/Restaurant Club

The Hotel/Restaurant Club sponsors the annual ice carving contest in December, caters the faculty/staff holiday party, and hosts lectures for the speakers from the culinary arts industry. In addition, members visit trade shows as well as hotels and restaurants in the metropolitan area to observe operating procedures and learn what makes them successful in the hospitality industry.

## Interc ollegiate Athletics

The Athletic Department presently sponsors a variety of popular intercollegiate athletic programs for men and women. The men's intercollegiate teams include soccer, cross-country, basketball, baseball, golf, wrestling, track and field and tennis. The women's programs compete in cross-country, softball, volleyball, track and field, golf, and tennis. The intercollegiate programs include professional coaches and schedules, which compete on a national level. The athletic facilities are professionally maintained and regularly updated. They include a gymnasium which seats 1,200 persons for basketball, a 75 foot by 45 foot, 6 soccer field which seats 200, baseball and softball fields, a fitness center and a multi-purpose field.

The college is a member of the Garden State Athletic Conference as well as the National Junior College Athletic Association (NJCAA). The College also competes in Region XIX, which consists of colleges from New Jersey, Eastern Pennsylvania and Delaware. Individual teams may also schedule two-year colleges from other states and Canada.

The Bulldogs (colors - purple, white, orange) regularly place athletes on All-American, All Region, and All Conference athletic and scholastic teams.

## Intercultural Communications Club

Open to all students, the purpose of this club is to enhance the socialization of international students, provide an opportunity for international students to develop their American English skills in a non-academic environment, secure an atmosphere for effective intercultural exchange and to improve communication between international students and native speakers of American English.

## International Students Association

The International Students Association brings together foreign and American students to share their diverse cultural backgrounds and to discuss current international events. The club sponsors trips to cultural centers and film festivals, and provides international career guidance sessions.

## Intramural Sports

Intramural sports are available to those students who enjoy competition with a less rigorous schedule. The Athletic Department, which sponsors intramurals, provides activities such as three-man basketball, four on four soccer, tennis, chess, volleyball, ping pong, and others depending on student interest. The co-ed activities are scheduled during student activity hours and are available to all College students. Awards are presented to winners in each category. Students need to be in good physical condition and sign an intramural waiver form. If you are interested in getting involved in intramurals, please call (201) 447-7182.

## Korean Student Association

Students get together to share their culture and experiences.

## Labyrinth

Bergen Community College's literary and art magazine which is published annually, welcomes submissions from all.

## Latin American Student Association

The Latin American Student Association is a student organization interested in promoting the culture of Spanish speaking countries. The Latin American Student Association is very active and sponsors seminars, workshops, lectures, movies, and trips to theater performances. In addition to these cultural events, the Association also organizes parties and bake sales to fund some of its activities. All students are invited to join!

## Media Club

Students studying or interested in the field of Media are welcome to participate in this club. Producing a weekly video program to air in the Student Center is one of their new ventures.

## Music Interactive Club

Students interested in promoting music activities and participating in musical activities and/or performances are welcome to join the Music Interactive Club.

## M uslim Student Association

The purpose of the MSA is to provide the opportunity for the college community to explore the dimensions of Islamic thought, history, beliefs and customs and to provide a forum for discussion of these entities. The MSAinvites all members of the college community to participate.

## Native American Heritage Club

The Native American Heritage Club recently formed to celebrate, study and explore those with direct Native American roots. A major fall festival and celebration is planned with music, dancers, food, powwows, lectures and movies.

## Nursing Student Association

The Nursing Student Association strives to contribute to nursing education in order to provide the highest quality health care. To this end, the association sponsors programs on current topics including stress, biomedical ethics, AIDS, teenage suicide, and others. The club also sponsors an orientation program for first semester nursing students. In addition, members attend the New Jersey Nursing Students Association Convention.

## Pakistani Student Association

The Pakistani Student Association brings students together to share their cultures.

## Philosophy Club

The Philosophy Club, also known as LOGOS, sponsors various speakers, programs, and philosophical discussions throughout the year.

## Phi Theta Kappa

Students who meet the academic criteria may be invited to join the Alpha Epsilon Phi Chapter of Phi Theta Kappa, the International Honor Society of the Two-Year College. The group's purpose is the recognition of academic excellence and the promotion of scholarship, fellowship, leadership, and service.

## Photo Clique

Bergen's recently formed photography club is open to anyone studying photography or interested in photography. Photo shoots, studio work, contests and displays are some of the things planned for the future.

## Physical Therapist Assistant Club

The Physical Therapist Assistant Club (PTAC) exists to increase the awareness of the physical therapist assistant program and physical therapy on the BCC campus and within the community. The PTAC coordinates varied educational and philanthropic activities as well as sponsors an orientation program for the first semester PTA students.

## Polish Cultural Club

The Polish Cultural Club brings students together to share in their culture.

## Psychology Club

The Psychology Club familiarizes students with the many different areas of psychology. The club also provides lectures, discussion groups and other activities that guide students'decision making about what topics and specializations of psychology they might wish to pursue. Students of all majors are welcome to join the Psychology Club.

## Respiratory Club

Students interested in the field of Respiratory Therapy are encouraged to join this organization. The club participates in the annual state Respiratory Bowl, distributes literature during the Great American Smoke Out day, and visits a New York hospital.

## Sociology/Social W ork Club

Fostering exploration and understanding of human behavior and social problems, the Sociology/Social Work Club is committed to encouraging the objective study of contemporary social issues and promoting careers in the social and human services. All students are welcome.

## Special Interest Club

This organization's purpose is to educate our community about the needs and concerns of people with disabilities through various programs and speakers.

## Speech Club

The two major programs of the Speech Club are the fall and spring annual Speech Competition which is open to all students at Bergen Community College.

## Staff and Student Club

Bergen Community College employees who are taking classes at BCC are welcome to join this organization. Field trips, lectures, book swaps and functioning as a support group are the major activities of this club.

## Student Activities B oard

The Student Activities Board (SAB) plans and provides programming for an active social environmentt for BCC students. Programs offered include musical events, lectures, dances, drivein movies, field trips to Broadway plays, sporting events, weekend sightseeing and ski trips. In addition, SAB works with clubs and organizations to provide other diversified programs including World Week, Women's History Month and African American History Month. Students wishing to participate on the SAB should contact the Office of Student Life at (201) 447-7215.

## Student Government Council

The Student Government Council (SGC) is the voice and governing body for Bergen Community College students. The Council consists of an executive board, senators, and a representative from each student club and organization. The Student Government Council meets weekly and all meetings are open to BCC students.

## Theatre Club

Students interested in performing or participating in any area of theatrical productions are invited to join the BCC Theatre Club. During the fall and spring semesters, the Theatre Club present a variety of productions which include comedy, drama, musicals, and experimental pieces. Past productions have included "Dangerous Liaisons," "Chicago," and "Lysistrata."

## The Torch

As the BCC student newspaper, The Torch keeps the college community informed about the on-campus events, student activities, student and faculty achievements, and other news of interest to the student body. No journalism experience is necessary and all students are encouraged to join the staff of the newspaper.

## Travel and Tourism Club

The Travel and Tourism Club has sponsored trips to local trade shows, travel bureaus, and scenic points of interest. The club also organizes trips for the winter and spring breaks each year. In addition to these activities, the Travel and Tourism Club hosts a series of lectures on the travel industry and publishes a newsletter. Members can join the National Travel and Tourism Society and may participate in study groups to help prepare for the Institute of Certified Travel Agents certification.

## Veterans Club

Comprised primarily of veterans, reservists, and members of the National Guard, the Veterans Club is involved in a series of activities focusing on the observance of holidays which commemorate American veterans. Members have visited the Vietnam Memorial in Washington, D.C., and will return to the capital to participate in the national Veterans Day observance. The Veterans Club invites all students on campus to take part in the activities.

## RULES AND REGULATIONS

At the beginning of the academic year each student is expected to obtain a copy of the College Catalog, Student Handbook and the Academic Calendar. The catalog contains information about the college in general, courses of study, student activities, and rules, regulations and procedures essential to student life on campus. Every student is responsible for knowing the information included in the catalog and the academic calendar.

## Alcohol and Drug Policy

The Bergen Community College Board of Trustees approved the following policy resolution regarding drugs and alcohol: "In accordance with Public Law 101-226, Bergen Community College declares that it will endeavor to provide its employees and students with an environment that is free of the problems associated with the unauthorized use and abuse of alcohol and illicit drugs.

Therefore, Bergen Community College prohibits the unlawful possession, use or distribution of illicit drugs and alcohol on college property or as part of any of its activities. As a matter of policy, Bergen Community College further prohibits the possession or consumption of alcohol on the college campus. Intoxication and/or disorderly conduct resulting from consumption of alcoholic beverages violates college policy. Local, state and federal laws which apply to unlawful possession, use, or distribution of illicit drugs and alcohol will be enforced. Individuals and organizations in violation of college policy and regulations are subject to disciplinary sanctions. As appropriate, sanctions may range from verbal warning up to dismissal. Sanctions may also include completion of an appropriate rehabilitation program or referral to appropriate legal authorities for prosecution.

These policies apply to all Bergen Community College employees and students as well as visitors to the college.

The college alcohol policy prohibits possession or consumption of alcoholic beverages on the Bergen Community College campus. Violators may be subject to suspension or dismissal. Intoxication and/or disorderly conduct resulting from consumption of alcoholic beverages will be considered a serious violation of campus regulations and may result in disciplinary action.

The possession or sale of drugs is a violation of the law. Bergen Community College will, therefore, make every effort to uphold the law and render assistance and support to law enforcement agencies legally and ethically pursuing their objectives, while at the same time render assistance to students when needed or necessary. In light of the foregoing statement, Bergen Community College's drug policy is as follows:

1. Faculty members, employees of the institution, and students are asked to report or submit to the Executive Vice President and Vice President of Student Services any knowledge or evidence directly or indirectly relating to the possession or sale of drugs anywhere on the college campus or at any time during a col-lege-connected activity.
2. The Executive Vice President shall submit to the college President all information that she may come by regarding the possession, sale or use of drugs on the college campus or during any college-connected activity and will recommend the appropriate course of action to be followed.
3. Bergen Community College students convicted of a drug charge or who admit, in writing, to the possession or sale of drugs anywhere on the college campus or during any collegeconnected activity will be subject to dismissal from the college.
4. Information given to a counselor during the privacy of a counseling session will not be divulged by the counselor unless, in the judgement of the counselor, there exists a clear and imminent danger to life, limb or property.

Students should refer to the document "Bergen Community College Student Program to Prevent Illicit Use of Drugs and Abuse of Alcohol" available through the Office of the Executive Vice President, the Health Services, the Counseling Office, and the Department of Public Safety.

## Alcohol and Drug Resources and Services

The Counseling and Health Services Offices are available to assist Bergen Community College students with education, information, and counseling services for alcohol and drugs. Counselors are available to provide students with confidential, non-judgmental individual counseling and to help students understand and identify factors that may point to substance abuse in themselves, their family or friends. Counseling is offered as a first step in acknowledging the presence of a related problem. Counselors provide referrals to treatment programs, and support to students as they make the transition to outside agencies. The counselors maintain a list of agencies which provide assistance with drugs and alcohol concerns in the Bergen County area.

## Clubs and Student Organizations Policy

Students at Bergen Community College are encouraged to enrich their college experience through a variety of activities including student government, clubs, student publications and athletics. The personal development of students is enhanced through these out-of-class activities. Although clubs are open to all BCC students, special interests of students are served by many clubs that are oriented to particular student groups and academic majors.

Financial support is provided to clubs and organizations in order to build an active campus life that will have a broad appeal across the student population. Funds are distributed to clubs and organizations in a manner that assures fair, non-discriminatory allocations that are devoid of conflict-of-interest. The division of general fees allocated for student activities shall be on a percentage basis as per a schedule approved by the Board of Trustees.

1. All clubs and other student organizations must be chartered by the Student Senate.
2. The Student Senate does not charter a club or other organization unless:
a. There is ample evidence that it has a meaningful place in student life;
b. It will observe college rules and regulations as well as those adopted by the Student Senate;
c. It can maintain an active membership;
d. It does not use the college name to own, rent, borrow or in any other way permanently or temporarily acquire off-campus facilities for housing, meetings, social events and other causes. However, in certain cases, special events may be conducted off-campus with the written consent of the dean of student services;
e. It does not purchase any items in the name of the college;
f. It does not discriminate according to sex, race, religion, national origin, sexual orientation or disability;
g. It has a faculty advisor;
h. The members of each club or other student organization are duly enrolled students of Bergen Community College in "good academic standing";
i. Each club or other student organization submits three copies of its constitution to the Student Center Office;
j. Each club or other student organization to be considered must register each semester by submitting a list bearing the names, home addresses and phone numbers of its officers to the Student Center Office.
3. College facilities will only be granted to an organization that has correctly registered, whose treasurer's books have been audited and approved, whose debts have been cleared, and whose Constitution is on file. A policies and procedures manual is available through the Student Center Office.

## College Name or Seal Usage

Individual students may not use the name or official seal of Bergen Community College in correspondence with other student groups, colleges or outside organizations, unless this is done in an official capacity by a recognized student organization and approved by the Office of Student Activities.

## Code of Student Conduct

All students are governed by college rules and regulations as well as those set by the Student Government Association. Each student is expected to exercise discretion, and act within the limits of decorum and propriety at all times and in all places. Students are especially accountable for behavior that contributes to, or results in:

1. Danger to the safety and well being of oneself and others;
2. Abreach of college rules and regulations;
3. Disobedience to local, state or federal laws;
4. Adisruption of the college's regularly planned programs and activities;
5. Academic dishonesty;
6. The unauthorized use and the abuse of alcohol and the illegal use and the abuse of drugs are specific violations of student conduct. These rules apply when attending college functions either on campus or off campus, or functions of college chartered organizations conducted either on campus or off campus.

The Board of Trustees authorizes the president of the college to employ the process of criminal and civil law to terminate any campus disruption and to restore college function and prevent injury to persons or property. The college reserves the right to suspend or dismiss any student for justifiable cause and regards this right as part of the college contract.

## Delinquent Students

Delinquent students are those who have outstanding financial obligations to the college or those who fail to return college materials on loan or assignment to them. Such students will have a "hold" placed on their records, will not receive copies of academic transcripts and will not be permitted to register for the next session. In the case of a graduating senior, conferment of the degree will be withheld. When materials cannot be returned because of loss or damage resulting from carelessness, the student is liable for the full retail price of a new replacement.

## Demonstrations

The philosophy of Bergen Community College is to encourage freedom in the expression of ideas presented in a scholarly and law abiding manner. Demonstrations that interfere with the daily operations of Bergen Community College or cause personal injury to individuals or damage to property will not be permitted on campus. Students involved in the planning or implementation of such a demonstration shall be subject to disciplinary action by the college and prosecuted to the fullest extent of the law. The President is authorized to employ the process of criminal and civil law to terminate any campus disruption and to restore college function and prevent injury to persons or property. The college permits demonstrations when conducted in accordance with the following conditions:

1. That they are not designed to and do not interfere with the daily operations of Bergen Community College;
2. That they are not designed to and do not cause personal injury to individuals or damage to property;
3. That they are limited to exterior areas (sidewalks and lawns); no activity will be permitted inside college buildings or in doorways leading to buildings. There shall be no interference with building or campus ingress and egress. Speaking to other persons shall be conducted so as not to interfere with their easy passage by;
4. That the intention to hold a demonstration and all its particulars must be filed 48 hours in advance of the event. The statement of intention must include date, time, and location of demonstration, purpose of said demonstration, approximate number of participants, type of activity involved (i.e., picketing, distribution of leaflets, chanting) and names of three individuals responsible for maintaining reasonable order.

## Dress Regulations

Students are expected at all times and in all places to exercise discretion and dress in accordance with propriety, good taste and public health requirements. It is further expected that the students' habits will reflect cleanliness, good grooming, and a concern for personal health.

## Eating and Drinking

Eating or drinking in classrooms, lecture rooms, laboratories, gymnasium, library, natatorium or passageways is forbidden. Eating and drinking are permitted in cafeteria and vending areas only.

## Emergencies

All emergencies, accidents or injuries which occur on college property are to be reported to the Public Safety Office or the college nurse within 48 hours of the accident.
In the event that any condition threatens to close the college temporarily, listen to the following broadcasting stations for official instruction: WABC/77, WCBS/88, WOR/710, and
Cablevision/News 12 NJ. Please do not call the school.

## Emergency Telephone Calls/M essages

The college does not have a public address system or a paging service and cannot seek students out to deliver telephone calls or messages.

## Equity in Athletics Disclosure Act

In compliance with Equity in Athletics Disclosure Act, Bergen Community College collects and publishes data which includes a list of varsity teams, the number of participants; budgets, gender participation, coaches'salaries and total revenue generated. Copies of this report can be reviewed or obtained in the Research and Planning Office, Student Center, Library, Financial Aid, Admissions, Registration and Student Information Services or the Athletic Department.

## Family Educational Rights and Privacy Act of 1974

The Family Education Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. They are:

1. The right to inspect and review the student's educational records within 45 days of the day the College receives a request for access.

Students should submit to the registrar, dean, head of the academic department, or other appropriate official, written requests that identify the record(s) they wish to inspect. The College
official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the College official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.
2. The right to request the amendment of the student's education records that the student believes are inaccurate or misleading.

Students may ask the College to amend a record that they believe is inaccurate or misleading. They should write the College official responsible for the record, clearly identify the part of the record they want to be changed, and specify why it is inaccurate or misleading.

If the College decides not to amend the record as requested by the student, the College will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.
3. The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPAauthorizes disclosure without consent.

One exception which permits disclosure without consent is disclosure to school officials with legitimate educational interests. Aschool official is a person employed by the College in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the College has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another College official in performing his or her tasks.

ACollege official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

Another important exception concerns the concept of "Directory Information." Information specified as "Directory Information" can be released without the consent of the student unless the student specifically requests that such information be withheld. This may be done by filling out a form available at the Office of Registration and Student Information Services (A-129).

Please note that Bergen Community College does not publish a student directory. This information is released only in connection with the federally mandated Graduation Rate Survey, and in publications such as the Commencement Program or Sports programs and news releases on graduates and student achievements.

Bergen Community College classifies the following information as "Directory Information": name and address; date of birth, dates of attendance, enrollment status (full-time, part-time), degrees, honors and awards received, field of study, participation in officially recognized activities and sports.
4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by Bergen Community College to comply with the requirements of FERPA. The name and address of the Office that administers FERPA are:

## Family Policy Compliance Office <br> U. S. Department of Education 600 Independence Avenue, SW Washington, D.C. 20202-4605

Students who may want to familiarize themselves with the Act may do so by reviewing this federal act available at the Library Reference Desk and in the Office of Student Services.

Students with inquiries and/or concerns regarding the Act, policy and/or procedures of the college are directed to make an appointment to speak with a counselor in the Division of Student Services or the Manager of Training and Compliance.

When deemed appropriate, the counselor shall refer the student to the Vice President of Student Services or the Manager of Training and Compliance if further discussion is warranted.

## Gambling

All forms of gambling are prohibited on the Bergen Community College campus and during all college-connected activities. Offenders are subject to disciplinary action that may result in suspension or dismissal.

## Good Neighbor Policy

It has been previously stated that each student is expected to exercise discretion and act within the limits of decorum and propriety at all times and places. This statement cannot be too strongly emphasized in relation to property immediately adjacent or in a close proximity to the college. Students are cautioned not to trespass on the neighboring golf courses, as offenders will be subjected to disciplinary action by the college.

## Section 504/ADA - Grievance Procedures

Bergen Community College has adopted an internal grievance procedure providing for prompt and equitable resolution of complaints alleging any action prohibited by federal regulations implementing section 504 of the Rehabilitation Act of 1973, as amended, and the Americans with Disabilities Act of 1990 (ADA). Section 504 and ADA state, in part, that "no qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of a public entity, or be subjected to discrimination by an such entity."

Complaints should be addressed to the Manager of Training and Compliance, Office of the Executive Vice President, Room A-330, telephone: 612-5331, who has been designated to coordinate section 504/ADAcompliance efforts.

1. Acomplaint should be filed in writing, contain the name and address of the person filing it, and briefly describe the alleged violation of the regulations.
2. Acomplaint should be filed within 30 days after the complainant becomes aware of the alleged violation.
3. An investigation, as may be appropriate, shall follow a filing of a complaint. The investigation shall be conducted by the Manager of Training and Compliance. These rules contemplate thorough investigations affording all interested persons and their representatives, if any, an opportunity to submit evidence relevant to the complaint.
4. Awritten determination as to the validity of the complaint and a description of the resolution, if any, shall be issued by the Manager of Training and Compliance and a copy forwarded to the complainant no later than 25 working days after its filing.
5. The section 504/ADAcoordinator shall maintain files relating to the complaints filed.
6. The right of a person to a prompt and equitable resolution of the complaint filed hereunder shall not be impaired by the person's pursuit of other remedies such as filing of a section 504/ADA complaint with the responsible federal department or agency. Utilization of this grievance procedure is not a prerequisite to the pursuit of other remedies.
7. These rules shall be construed to protect the substantive rights of interested persons, to meet appropriate due process standards, and to assure that Bergen Community College complies with section 504/ADAand implementing regulations.

## Guest Speaker Program Policy

1. The Student Center Office is to be notified two weeks in advance of the purpose, time, place speaker(s), topic(s) and other preparations as necessary.
2. When such notification has been received, the Student Center Office will follow one of the following alternatives:
a. record the appropriate information thus enabling the organization to extend an invitation, or
b. after consultation with the organization sponsoring the program, refer the matter to the Vice President of Student Services.
3. When a student organization presents a speaker on a controversial topic, the organization is to make provisions for the expression of opposing viewpoints either at the same meeting or at a subsequent meeting within a four-week period.
4. No publicity may be given to a proposed program before the following conditions have been met:
a. The Vice President of Student Services has certified that the proposed program has been duly registered.
b. Each guest speaker has been invited and has accepted the invitation.
a. The Vice President of Student Services has certified that the proposed program has been duly registered.
b. Each guest speaker has been invited and has accepted the invitation.
5. Literature may be posted on authorized bulletin boards only; nothing may be posted on the exterior of college buildings or elsewhere on the college campus.
6. The program sponsors are responsible for assuring proper compliance with all the rules and regulations.

## Hours

Persons must leave the college buildings and grounds by 11:00 p.m. When use of the college facilities beyond the limits set above is deemed necessary, approval must be obtained from the appropriate cabinet officer, and arrangements made in writing through the Office of Public Safety.

## Noise and Sound

Bergen Community College values an environment conducive to learning. It is expected that students respect and support that concept. Noise created by electronic devices cannot and will not be tolerated. Students who disturb the normal operation of the college may be subject to disciplinary action.

## Off-Campus Trips

An officially registered college club or organization that wishes to sponsor an off-campus trip must file written application and receive approval through the Office of Student Activities at least one week prior to the event. All trips must be appropriately chaperoned and are governed by college rules and regulations.

## Petitions

If a petition is circulated on campus, a copy must be filed with the Office of Student Activities. Each copy must bear the words "Bergen Community College," the name of the group or groups sponsoring the petition, and the petition itself.

## Posters, Notices, Circulars

Posters and notices are not to be sent to instructors to read in class. If a group wishes to distribute circulars to the faculty, approval must be received directly from the Office of the Vice President of Student Services. Notices for students are to be distributed in such a fashion so as not to interfere with student traffic or with the regular functioning of the college. Pressure is not be be exerted upon individuals to accept notices. General postings must be approved by the Student Center Office.

## Public Safety

The Public Safety Office is located in Room L-154 and open for emergencies 24 hours a day, phone 447-7116. The campus is patrolled by officers at all times to ensure a safe and secure environment. Violations of campus regulations, criminal laws or any emergency must be immediately reported.

## Safety and Fire Regulations

Bergen Community College observes all safety and fire regulations and supports the local agencies charged with the responsibility for their enforcement. In the event of an emergency situation requiring evacuation of the facilities, alarms
will be sounded throughout the buildings. You are instructed to take your personal belongings with you and immediately leave the building by the nearest stairway. Do not use the elevators.

## Sexual Harassment Policy

Bergen Community College is committed to providing its students and employees with an academic and work environment free from sexual harassment or discrimination. Sexual harassment in any form constitutes prohibited, unprofessional and unacceptable conduct, and is a violation of Title VII of the Civil Rights Acts of 1964 and 1990, as amended, Title IX of the Education Amendments of 1972, the New Jersey Law Against Discrimination, established caselaw and State policies. The policy applies to all persons. Administrators, faculty, staff, and students are all covered.

Harassment of students by faculty and staff as well as by other students is covered, as is harassment of faculty and staff by students. Harassment by vendors, including contractors, is prohibited. The College will not tolerate, condone or allow sexual harassment of any of its students or employees, by any instructional, supervisory, managerial or administrative personnel, co-workers, students, independent contractors, vendors or others with whom the College does business. Bergen Community College will enforce this policy and expects all employees and students to be diligent in preventing, detecting and reporting any incidents of sexual harassment. Bergen Community College expects each employee and student to avoid any acts or statements that may constitute sexual harassment and to ensure that his or her conduct complies with this policy. The College will take appropriate disciplinary action when an investigation reveals that an individual has engaged in any such prohibited conduct.
A. For the purposes of this policy, Sexual Harassment is defined as unwelcome sexual advances or sexually explicit comments, requests for sexual favors, and/or other verbal or physical conduct based on the gender of the affected individual when:

1. Submission to such conduct is made either explicitly or implicitly a term or condition of employment or academic achievement; or
2. Submission to or rejection of such conduct by an individual is used as the basis for employment or academic decisions affecting that individual; or
3. Such conduct has the purpose or effect of unreasonably interfering with an individual's work or academic performance or creating an unreasonably intimidating, hostile or offensive working or educational environment.
Hostile environment sexual harassment includes, but is not limited to:
a. Generalized gender-based remarks and behavior;
b. Inappropriate, unwanted, offensive physical or verbal sexual advances and comments;
c. Solicitation of sexual activity or other sex-linked behavior by promise of reward;
d. Coercion of sexual activity by threat of punishment;
e. Gross sexual imposition such as touching, fondling, grabbing or assault.
B. An individual need not be a personal target of harassment to file a complaint. The individual instead may show that other individuals were sexually harassed and that this harassment created a hostile or intimidating work or academic environment.
C. Conduct under (A1-3) above by any instructional, supervisory, managerial or administrative personnel, co-workers, students, independent contractors, vendors or others with whom the College does business constitutes prohibited sexual harassment when a reasonable person of the same sex as the aggrieved individual would consider it sufficiently severe or pervasive to alter the conditions of employment or education or to create an intimidating, hostile or offensive working or educational environment.
D. Members of the College community who believe they are being or have been sexually harassed or discriminated against in violation of the Policy Prohibiting Sexual Harassment should report the incident. Students and employees with questions about this policy or reports of sexual harassment should be made, in writing, within thirty days of the incident to the Manager of Training and Compliance, Room A-330, telephone number 612-5331.
E. Every member of the College community should be aware of the fact that the College is strongly opposed to sexual harassment and that the College will take whatever action it deems necessary to prevent, correct, and if necessary, discipline behavior that violates this policy. Disciplinary action for employees can range from reprimands to dismissal. Students violating this policy may be reprimanded, suspended or dismissed from the College.

## Campus Sexual Assault Victim's Bill of Rights

A college or university in a free society must be devoted to the pursuit of truth and knowledge through reason and open communication among its members. Academic communities acknowledge the necessity of being intellectually stimulating where the diversity of ideas is values. Its rules must be conceived for the purpose of furthering and protecting the rights of all members of the university community in achieving these ends.

The boundaries of personal freedom are limited by applicable state and federal laws and institutional rules and regulations governing interpersonal behavior. In creating a community free from violence, sexual assault and non-consensual sexual contact, respect for the individual and human dignity are of paramount importance.

The state of New Jersey recognizes that the impact of violence on its victims and the surrounding community can be severe and long lasting. Thus, it has established this Bill of Rights to articulate requirements for policies, procedures and services designed to insure that the needs of victims are met and that the colleges and universities in New Jersey create and maintain communities that support human dignity.

The following rights shall be accorded to victims of sexual assault that occur:

- on the campus of any public or independent institution of higher education in the state of New Jersey, and
- Where the victim or alleged perpetrator is a student at that institution, and/or when the victim is a student involved in an offcampus sexual assault.


## Human Dignity Rights:

- To be free from any suggestion that victims must report the crimes to be assured of any other right guaranteed under this policy
- To have any allegations of sexual assault treated seriously ; the right to be treated with dignity
- To be free from any suggestion that victims are responsible for the commission of crimes against them
- To be free from any pressure from campus personnel to:
${ }^{\circ}$ Report crimes if the victim does not wish to do so
${ }^{\circ}$ Report crimes as lesser offenses than the victim perceives the crime to be
${ }^{\circ}$ Refrain from reporting crimes to avoid unwanted personal publicity.


## Rights to Resources On and Off Campus:

- To be notified of existing campus and community based medical, counseling, mental health and student services for victims of sexual assault whether or not the crime is formally reported to campus or civil authorities
- To have access to campus counseling under the same terms and conditions as apply to other students in their institution seeking such counseling
- To be informed of and assisted in exercising:
${ }^{\circ}$ Any rights to confidential or anonymous testing for sexually transmitted diseases, human immunodeficiency virus, and/or pregnancy
${ }^{\circ}$ Any rights that may be provided by law to compel and disclose the results of testing of sexual assault suspects for communicable diseases.


## Campus J udicial Rights:

- To be afforded the same access to legal assistance as the accused
- To be afforded the same opportunity to have others present during any campus disciplinary proceeding that is allowed the accused
- To be notified of the outcome of the sexual assault disciplinary proceeding against the accused.


## Legal Rights:

- To have any allegation of sexual assault investigated and adjudicated by the appropriate criminal and civil authorities of the jurisdiction in which the sexual assault is reported
- To receive full and prompt cooperation and assistance of campus personnel in notifying the proper authorities
- To receive full, prompt and victim sensitive cooperation of campus personnel with regard to obtaining, securing, and maintaining evidence, including a medical examination when it is necessary to preserve evidence of the assault.


## Campus Intervention Rights:

- To require campus personnel to take reasonable and necessary actions to prevent further unwanted contact of victims by their alleged assailants
- To be notified of the options for and provided assistance in changing academic and living situations if such changes are reasonable available.


## Statutory M andates:

- Each campus must guarantee that this Bill of Rights is implemented. It is the obligation of the individual campus governing board to examine resources dedicated to services required and to make appropriate requests to increase or reallocate resources where necessary to ensure implementation
- Each campus shall make every reasonable effort to ensure that every student at that institution receives a copy of this document
- Nothing in this act or in any "Campus Assault Victim's Bill of Rights" developed in accordance with the provisions of this act, shall be construed to preclude or in any way restrict any public or independent institution of higher education in the State from reporting any suspected crime or offense to the appropriate law enforcement authorities.


## Smoking Policy

As of January 1, 1992, Bergen Community College facilities are smoke free. Smoking is not allowed in any building on campus. We are required by statute to enforce this policy. The following enforcement procedures will be in effect:

1. An initial warning will be issued to an individual who violates the policy. The notice will advise the person that smoking is not permitted in any Bergen Community College building. The violator's name, address, and social security number will be recorded on the warning notice. The person filing the complaint and witnesses will sign the form. Copies of the warning notice will be sent to the Public Safety Department for record keeping.
2. Asecond violation will result in a letter being sent to the violator warning of the consequences of another violation.
3. The accumulation of three violations within any one of the specified periods will result in charges being filed in municipal court. The specified periods are September 1 to December 31, January 1 to April 30, and May 1 to August 31.

Any person on campus may issue a warning notice for violation of the smoking policy. Warning notice forms are available from the Office of Public Safety, Room L-154.

## Social and Educational Functions Policy

The following policies have been established to assist and guide organizations which desire to conduct social or educational functions on- or off-campus. As a matter of policy, scheduling of all social and educational functions other than regular classes and field trips must be cleared and approved through the Vice President of Student Services.

## Election of Chairman:

The sponsoring organization must appoint a general chairman who shall fill out the proper forms for social or educational functions at Bergen Community College in the Student Center Office at least three weeks prior to the function.

## Scheduling of date, time, and location:

Any major function that an organization is sponsoring must appear on the activity calendar. Functions held on campus require an allocation of space cleared through the Student Center Office. Functions may be held off campus if approved by the advisor of the organization and the Vice President of Student Services.

## Entertainment Contracts:

A contract must be signed by the Vice President of Student Services, or designee. A copy must be filed in the Student Center Office. Student Services, or designee. A copy must be filed in the Student Center Office.

## Refreshments:

When a group wishes to have refreshments served by the Food Service, the appropriate form "Food Service Purchase Requisition" must be filled out in the Student Center Office.

## Special Equipment:

a. The public address system: To use any of the P.A. systems on campus, permission must be obtained from the Student Center Office.
b. Other equipment: Requests for other type of equipment for students functions are generally directed toward the Student Center Office.

## Notifications:

Supervisor of public safety should be notified of all on-campus social or academic functions.

## Chaperones:

One chaperone is required at all activities, although it is recommended that two chaperones serve at social functions. One of the chaperones must be a member of the college faculty or administration. The duties of the chaperones shall be as follows:
a. to supervise the activity and assure adherence to college polices and regulations.
b. to cooperate with the committee chairperson in seeing that good taste and proper standards of conduct are maintained.
c. to submit a brief summary report/evaluation to the Student Center Office after the function.

## Financial responsibilities:

a. The president of the organization and the chairman of the function are responsible for the financial obligations involved. If tickets are printed, they must be serially numbered and a careful count kept of the number of tickets sold and the number given out as complimentary tickets.
b. All contracts must be signed by the Vice President of Student Services, or his designee. Copies of the contract must be filed in the Student Center Office.
c. The college controller in the Office of the Vice President of Budget and Finance is to act in an advisory capacity to any organization in need of assistance in regard to Internal Revenue taxes or any other financial matter.
d. Afinancial report must be completed and filed with the Student Center Office no later than two weeks after the function.
e. Adetailed and documented list of expenses must be retained as a permanent record by the organization.

## Solicitation/Fund Raising

An officially registered college club or organization that wishes to sell merchandise or sponsor a fund-raising event must request permission to do so by written application submitted to the Office of Student Activities two weeks prior to the date of the event. All solicitation or fund-raising activities must be directly related to and clearly supportive of the purposes and objectives of the club or organization.

## Traffic Regulations

The municipal police, as well as Campus Public Safety officers enforce all traffic and parking regulations on campus. Students violating traffic and parking regulations on campus are subject to fines, penalties, and/or disciplinary action that could lead to suspension or dismissal from the college.
Students planning to use campus parking facilities must obtain a parking permit decal for their vehicle. Extra cars may be registered at a cost of $\$ 3.00$ each. This sticker is obtained after proper registration of the vehicle has been completed at the Office of Public Safety, Room L-154. Students must present a valid driver's license and the current bursar's receipt, and/or I.D. card.
Campus parking and traffic regulations for the academic year are published in a separate pamphlet available in the Office of Public Safety. Parking is permitted only in designated areas. Individuals violating college regulations are subject to fines as outlined in the Motor Vehicle Regulation booklet.

## Academic \& Student Facilities

## THE SIDNEY SILVERM AN LIBRARY AND LEARNING RESOURCE CENTER

(201-447-7970)
The Sidney Silverman Library, an important resource for information, study, and intellectual enrichment, is an
integral part of the college's educational programs.
To support the curriculum, the library acquires, organizes and provides access to a variety of print, media, and electronic resources for individual and classroom use.

The library is located on the first, second and third floors in the $L$ area of the megastructure. It is open whenever classes are in session and on a reduced schedule when classes are


## Reference Information Services

Experienced librarians are available to assist library users to access information resources. The Reference Network provides access to electronic indexes, full text databases, and the internet. The databases include an ever growing list, e.g., Expanded Academic Index ASAP, Reader's Guide, Wilson Business Abstracts, Art Abstracts, ERIC, Medline, and full text resources such as the New York Times, Proquest Direct, Business Dateline, and Ethnic Newswatch. Laser printing and downloading capabilities are provided to facilitate research. The VALE (Virtual Academic Library Environment) initiative provides CINAHL, PSYCH LIT, and ABI INFORM. Electronic resources are now available anywhere or anytime through the Library Homepage on the BCC Website.

## M edia M aterial Services

All media materials and hardware are available in L-125. Students are encouraged to use this collection for self-instruction, review, and enrichment. The collection includes more than 4000 videotapes, CD's, and slides on a wide variety of subjects to meet educational goals.

## Collections

The library houses over 130,000 volumes including books, magazines, newspapers, films, slides, audiotapes, videotapes, videodisks, transparencies, microfilm, and microfiche. Materials are selected with consideration for the varied interest and education needs of students and faculty. The resources of other libraries in the county, New Jersey and the nation are available to BCC students through inter-library loan services.

## Integrated Client Server Library Catalog

When The Library Catalog is used to find a Library item, the system accesses the library's bibliographic record. It shows our holding for books, periodicals, maps, web-based resources, CD's, videotapes, slides, software, and any other resource owned by the Sidney Silverman Library. The system also reveals the items exact location and if it is available or in circulation. New services include Electronic Reserves, greater access to full-text resources on the Web, and easy PIN-style access for each user to his or her library records.

## Other Services

Photocopiers and microfilm/fiche reader-printers are available in the library for student use. The Computer Training and Research Institute (201 447-7840) maintains an inventory of computer software for preview and self directed learning in microcomputer skills.

## The Sidney Silverman Library

The library maintains a Web Page on the BCC homepage at www.bergen.cc.nj.us/library. Please check this information site for the most up to date information on resources and access. Comments and suggestions regarding library collections and services are easily submitted through the Library Catalog.

## INSTRUCTIONAL FACILITIES AND SERVICES

## Academic Advising Center

Academic advisement is critical to a successful college career. Faculty Advisors help students plan their educational goals, and provide academic/educational advice as well as early intervention with college issues, policies, and problems. Faculty Advisors are committed to the academic success of the student.

Faculty advisors are available during scheduled office hours, or on a drop in basis in the Academic Advising Center, A-101 in the Student Center.

## Adaptive Technology Laboratory

The Adaptive Technology Laboratory, located in the Office of Specialized Services (S-131), provides adaptive technology to aid students who are learning disabled, visually impaired, hard of hearing or deaf. The laboratory contains electronic readers, print enlargers and Braille printers, and special lap-top computers that can be used in the classroom. Scribes, notetakers, tutors, alternative testing arrangements, counseling, and support groups are available. To take advantage of these services, the student needs to indicate that he or she has a disability on the application to the college. Documentation needs to be provided to the Office of Specialized Services. The phone number is 201-612-5270 or 201-447-7845 (TTY).

## Allied Health Facilities

Each Allied Health curriculum is supported by extensive facilities including x-ray and ultra-sound units, hospital laboratory equipment, and a dental hygiene clinic.

## Art Facilities

The Art Program maintains several studios and labs for teaching traditional and electronic media. (See: Computer Graphics Lab, Fine Arts Studio, Multimedia Lab, and Photography Studio and Darkroom.)

## Center for Collegiate Deaf Education

The New Jersey Commission on Higher Education has designated Bergen Community College as one of two regional centers for students who are deaf or hard-of-hearing. Housed within the Office of Specialized Services, the Center provides access through the provision of notetakers, tutors, assistive devices, and sign language interpreters. Please call (201) 612-5270 or (201) 447-7845 TTY for more information or visit The Center in S-152.

## Child Development Center

Child Development Center in East Hall is a unique laboratory school, licensed by the Division of Youth and Family Services, to provide care for children $21 / 2$ to 6 years of age. The Center is staffed by teachers certified in Early Childhood Education and student interns enrolled in the Associate Degree Program in Early Childhood Education. A comprehensive renovation in 1997 expanded and upgraded the facility by adding three new classrooms, computers, and a one-way observation room so that students can view classroom operations.

## Computer Facilities

Bergen Community College is committed to providing all students with appropriate access to modern technology. Industrystandard products are available, including Pentium II PCs running both Windows98 and WindowsNT, Macintosh G3 computers, and Microsoft Office (Word, Excel, PowerPoint, Access), plus other products too numerous to mention here.

Many students choose majors or courses where computer hardware or software is the topic being studied. Many more students make use of computers in learning topics like math, English and world languages, visual arts, engineering, drafting, culinary arts, communication, nursing, and sociology. Multimedia software and the internet provide faculty and students with new ways to interact and to better understand many concepts and real-world experiences, complementing traditional teaching methods.

Bergen has over 20 networked computer labs and classrooms designed with a computer workstation for each student. There are additional specialized and smaller facilities for specific disciplines. Also, many traditional classrooms are equipped with a computer workstation and projection system at the presenter's podium. The library makes extensive use of computers, both to support patron services such as circulation of traditional print materials and to access electronic documents.

Many classes meet regularly in computer-equipped facilities. There are also free-time computing labs open up to 13 hours a day available to all currently enrolled Bergen students. Every Bergen student is eligible to obtain and use an electronic mail account. Plus the college hosts course-related web pages for students enrolled in certain web development courses.

Bergen's collection of computers, software, and their internet connections are constantly being expanded, renewed, and maintained in order to provide the best possible learning opportunities for BCC students.

## Computer Graphics Lab

The E-189 Computer Graphics Lab is equipped with 25 state-of-the-art Macintosh workstations for instruction in Photoshop, Illustrator, QuarkXpress, and Painter. Additional Macs are integrated into the $\mathrm{S}-254$ graphic design studio.

## Cooperative Education and <br> Career Development Center

Below is a list of programs and services offered by the Cooperative Education and Career Development Center. The mission of the office is to offer students programs and services that will promote success in their academic and professional careers. The office is located in Room C-100, (201) 447-7171.

Cooperative Education is an academic course in which eligible students apply what they have learned in the classroom to positions related to their major or career goals. By working in pre-professional positions in business, government or public service organizations, students gain hands on experience as they earn academic credit.

Service Learning is academically-based community service. While studying theory and course content in their classes, students have the opportunity to contribute to the community. Students participate in Service Learning by choosing this option, which is offered in a number of academic courses each semester.

Career Counseling is encouraged at any time during a student's college experience, but is especially effective when students explore career options early in their education. Students can request individual counseling by setting up an appointment with a counselor.

Part-time Job Placement. Part-time and temporary job listings are available for students and alumni.

Full-time Job Placement. Full-time professional positions are available for graduating and continuing students.

Workshops. Throughout the year, the center offers workshops on a wide variety of career topics, including: Career Planning, Resume Writing, Interviewing Skills, and Job Search Strategies. Watch bulletin boards in front of A-129 and C-100 for time and place.

Special Events. Learn about corporations and career paths through Co-Opportunity Day, on campus recruiting, and the Job Fair. Contact the center for the latest information on upcoming events.

Computerized Career Guidance. Students are encouraged to use SIGI throughout their academic career. This computer program helps students to assess their skills, values, and interests in order to develop a list of potential career choices.

On Campus Recruitment. Employers are available with job offerings throughout the year in front of the cafeteria.

Resume Critique Service. Students may obtain a copy of our Resume Writing Guide and drop off their resume drafts for critiquing by a counselor. Resumes can be picked up within 48 hours.

Career Library. Available to all students for research on careers. There are materials on resume writing, interviewing, and conducting a job search. Students can also research career fields, salaries, and employers.

## Educational Broadcast Center

The Educational Broadcast Center provides students with a learning laboratory which expands their talents in the media field. The center includes a student television studio, a full scale television production studio, a radio lab, and editing suites. The EBC is used by students in broadcasting and mass communications courses. The college television program, "On-Campus," is produced in the EBC.

## English Language Resource Center

The English Language Resource Center, located in East Hall Room E-126, provides help to students whose native language is not English. The Center assists students to become proficient in English through multimedia computer programs, cassettes, video tapes and books as well as individual tutoring. The English Language Resource Center also offers ESL conversation groups and specialized language skill workshops. The Center is open when classes are in session for day and evening hours.

## Fine Arts Studio

In addition to its computer graphics, computer animation, and photography labs, the Art Program utilizes the E181 Fine Arts Studio for teaching courses in drawing, life drawing, and painting.

## Greenhouse

The greenhouse, located in East Hall, serves as a laboratory for students in the college's horticulture programs. During the semester, students gain experience in growing plants, making cuttings, and doing other work associated with greenhouse management.

## Hotel/Restaurant Labs

Two fully-equipped kitchens (one newly renovated) and a cafeteria permit students in the Hotel/Restaurant/Hospitality Program to gain experience in the culinary arts and food preparation.

## ITV

The interactive classrooms electronically link BCC to classrooms in area high schools, colleges, and to satellite downlinks. Through these facilities the college participates in national teleconferences and offers classes to high school and college students.

## Laboratory Theatre

The Laboratory Theatre, located in East Hall, presents comedy, drama, dance, and original works by theatre groups and community dance companies of Bergen County. In addition, student productions are also presented throughout the fall and spring semesters.

## M ath Center

The Math Lab offers tutorial services and computer-based assistance for students enrolled in mathematics courses at all levels. The hours when the lab is open are posted on a semester-bysemester basis. The lab is located in Room C-110.

## M anufacturing Lab (CAD/CAM Lab)

The Manufacturing Lab utilizes high tech hardware (CNC) lathe and milling machines, a vision inspection system, robotic arms, conveyers, and industrial software (SMARTCAM) in order to control, manage, operate, and monitor manufacturing processes.

## Multimedia Lab

The S-250 Multimedia Lab is the college's new state-of-the-art multimedia center for teaching computer animation and electronic music. First opened in January 2000, the Multimedia Lab provides art and music students with exciting opportunities for cutting edge experimentation in 2D and 3D computer animation, and in computer generated music composition and performance. All machines will be running Softimage, Premiere, Aftereffects, Photoshop, Illustrator, Soundforge, and Cakewalk (a digital MIDI composition program). The lab contains 15 synthesizers/samplers. Music students create their own compositions using the latest technology involving sequencing, editing, and mixing, to a final CD of their own music.

## On-line Writing Lab (OW L)

The BCC On-line Writing Lab (OWL) is an expansion of the Writing Center. Also called "Writer's In-Sites," the BCC OWLis a website designed to help students with all aspects of the writing process. It is full of links to sites about how to generate ideas for writing, organize written ideas, write resumes and cover letters, do research papers, write papers for various college subjects, and edit and proofread papers. This site also contains links to chat-rooms and discussion forums about writing and academic subjects in the college. It can be accessed by typing www.bergen.cc.nj.us/owl

## Photography Studio and Darkroom

The Art Program maintains a fully functional traditional photography studio and black and white darkroom with 15 enlargers in S-258 and S-256. Photographic works are also manipulated digitally using Photoshop in the S-250 Multimedia Lab and the E-189 Computer Graphics Lab.

## Piano Laboratories

There are two class piano labs on campus. The first is in E-124 and contains 15 electronic pianos used principally for class piano instruction. The second is a new, state-of-the-art multimedia lab in S-250, which is equipped with 15 synthesizers/samplers along with the latest software for creating electronic music compositions.

## Robotics Lab

The Robotics Lab is utilized primarily by students in the industrial and design technologies programs. Students learn the role of a microprocessor in the development of robotics technology and perform a variety of programming activities.

## Technology Assisted Learning Lab (TALL)

The Technology Assisted Learning Lab (TALL), located in Room $\mathrm{C}-110$, is equipped with several computers and the latest instructional software to provide students self-paced individualized instruction in a variety of content areas. Staffed by faculty, professional assistants, and students, the lab provides assistance in Mathematics and English and a variety of other subjects. Hours are posted on a semester-by-semester basis.

## Testing and Assessment

The Office of Testing and Assessment, located in rooms L-121 and L-123, adjacent to the Student Center, offers a variety of testing services. Among those tests administered are the English and mathematics basic skills tests; the Comprehensive English Language Test; challenge, proficiency, and credit-by examination tests in a number of subject areas; and classroom make-up tests.

## Theatre

The theatre accommodates an audience of 300 and serves a wide range of performing arts through its flexible stage configuration. Most importantly, the theatre serves as an environment where students develop their skills in a full range of theatre crafts.

The theatre contains all of the necessary support spaces, including dressing rooms, rehearsal space, administrative office space, and workshop areas for scenery, props, wardrobe, and lighting. The lobby can accommodate small gallery size art shows.

The theatre is equipped with a state-of-the-art computerized lighting system capable of controlling hundreds of lights at the push of a button. Students in the theatre and communication arts curricula learn to operate the lighting equipment as well as the sound and stage rigging systems. While the primary purpose of the theatre is to meet the educational needs of BCC students, the facility also serves as a showcase for the performing arts. Dance, theatre, and music groups perform regularly in the theatre. Tickets are discounted for students and senior citizens.

## Tutoring Center

The Tutoring Center is a tutorial and support service for students enrolled in any type of course at the college. The tutors are generally BCC students who have completed their coursework in areas in which they provide tutoring. Students may receive tutoring in a variety of areas including writing and basic math to calculus level courses. This service is available to students free of charge and may be arranged by visiting the Tutoring Center in Room S-118 or calling (201) 447-7908.

## Writing Center

The Writing Center, located in the Technology Assisted Learning Lab (TALL) in Room C-110, is designed to help students improve their writing. Individualized tutorials in all facets of the writing process including development of ideas, organization, editing and proofreading are available to all students enrolled in col-lege-level courses. The Center also offers computer-assisted instruction in grammar, study skills, and writing. Students receive assistance in written assignments, including research papers, in all content areas. Additionally, faculty can receive assistance in developing writing assignments for their classes or professional projects, such as grant proposals, dissertations, or publications. All Writing Center instruction is provided by full-time faculty and professional staff of Bergen Community College. See also, the On-line Writing Lab (OWL), which is an expansion of the Writing Center.

## X-Ray Unit

The on campus X-Ray facility offers a state-of-the-art fully functional X-Ray unit, dark room, and extensive accessories found in our local hospitals. Students perform "hands on" procedures and are evaluated by practicum exams to measure their level of competency prior to actual patient interaction.

## STUDENT FACILITIES AND SERVICES

## Athletic Facilities

The college athletic facilities include a gym, pool, six outdoor tennis courts, weight rooms, an eight-lane track, soccer, baseball and softball field, and access to the nine-hole county golf course adjacent to the campus. In addition, a fitness parcourse is located around the grounds of the campus, and a Fitness Center is in S 128.

## Auditorium

The Auditorium is located in the Student Center and accommodates an audience of 100 . The auditorium is used by faculty and student groups for lectures, film series, video conferences, and hosts many of the Student Activities Board's events.

## Bookstore

Required textbooks, notebooks, and student supplies may be obtained in the college bookstore located on the main floor of the college center. The bookstore will buy back all current textbooks anytime except the first two weeks of classes. Prices paid depend on whether books will be used for the current or following terms. The Bookstore phone number is 447-9298.

The bookstore accepts personal checks, Visa, Master Card, American Express, and Discover for purchases if a current, validated student ID card and one other form of identification are presented. In addition, the student's home address and phone number must be on the check. There is a $\$ 20$ charge for any check returned to the bookstore by the bank.

Textbooks may be returned under the following conditions: All returns must be accompanied by a sales receipt. No exceptions. If the course is dropped by the student, the student must present his or her withdrawal slip, as well as book receipt within two weeks of the beginning of the semester/session.

Return books within seven days of purchase. Books must be in original purchase condition (new and unmarked). All returns must be accompanied by the book receipt. There will be no refunds on study aids, such as Cliff Notes or dissection kits. Refunds on purchases by check will be given after ten business days allowing check to clear.

## Bookstore Hours (Subject to Change) Fall and Spring

Monday - Thursday 9am-8pm
Friday
9am-3pm

## Summer Hours

$\begin{array}{lc}\text { Monday-Thursday (Summer Sessions) } & 9 \mathrm{am}-7 \mathrm{pm} \\ \text { Monday-Thursday (no classes in session) } & 9 \mathrm{am}-5 \mathrm{pm} \\ \text { Friday (if the building is open) } & 9 \mathrm{am}-3 \mathrm{pm} \\ \text { Friday (if the building is closed) } & \text { CLOSED }\end{array}$

## Career Development

The Cooperative Education and Career Development Center (C-100) offers career counseling, part-time and full-time job placement, workshops on a variety of career topics, a resume critique services, job fairs and on-campus recruitment, computerized career guidance, and a career library.

## Child Development Center

The Child Development Center, in East Hall, is available to BCC students and employees as well as residents of Bergen County. The Center is designed for children $21 / 2$ to 6 years of age and is open from 7:45 a.m. to 5:30 p.m. daily. It is licensed by the State of New Jersey and staffed by full-time teachers and interns from the College's Early Childhood Education Program. Children may be enrolled on a full-time, part-time, or drop-in basis.

## Counseling Center

The Counseling Center, in Room A-118, is a place for a student to ask questions, take time to reflect upon the direction of his or her life, to seek help with: course selection, choice of curriculum, finding the right job or four year college, deciding whether or not to drop a course, developing better study skills. The phone number is 447-7211.

## Personal Counseling

The counselors educate, support, provide insight into and help students cope with problems. Students ask for assistance with an assortment of daily struggles and developmental issues which mirror the society in which they live. These can result in anxiety, depression, feelings of worthlessness, helplessness, guilt, frustration, or anger. Emphasis is placed on a variety of short term, practical cognitive, affective, and behavior techniques to encourage the processes of change. If more extensive counseling is required, counselors can help students find other resources. The phone number of the Counseling Center is 447-7211, Room A-118.

## Transfer Counseling

For assistance with the college selection process, students are encouraged to speak with a transfer counselor. Appointments may be made in the Counseling Center. Information and reference materials are provided in the Transfer Library and in the Sydney Silverman College Library. Transfer Information Sessions are held throughout the semester. Applications for most local colleges may be obtained in Room A-118. Representatives from New Jersey and out-of-State colleges visit the campus throughout the year. The phone number is 447-7211.

## International Students

Counselors are available to advise students from other countries on their special problems, and to assist them in partaking fully in student life. The phone number is 447-7212.

## Services for Students with Disabilities

Counseling for students with physical, visual, learning, hearing, and emotional disabilities is made available in the Counseling Center and also in the Office of Specialized Services (S-131). Continuous contact is maintained throughout a student's college experience in order to assist the student in attaining his or her desired academic goals. Astudent with a disability who
plans to attend Bergen Community College should provide documentation of the disability and accommodations needed to the Office of Specialized Services as soon as possible. Otherwise, no services can be provided. The phone number is 612-5270.

## Dental Hygiene Clinic

The Dental Hygiene Clinic in Room S-327 is open to BCC students and the public, and provides preventative dental care services. The clinic is operated by students in the Dental Hygiene Program under the supervision of licensed dentists and dental hygienists. It is open three days a week in the fall semester and five days a week in the spring. For appointment or information call 447-7180.

## Fitness Center

The Fitness Center for student use is located in S-128 and is open weekdays at specified times. These hours are posted each semester. Diverse exercise workouts are made possible by a variety of exercise equipment.

## Food Services

The college cafeteria is open for breakfast, lunch, and dinner Monday through Friday and breakfast and lunch on Saturday during the fall and spring semesters. It is open with more limited hours during the summer sessions. Automated food vending machines are located throughout the campus. The Hotel/Restaurant/Hospitality Program operates a small cafeteria in East Hall during the fall semester and a restaurant called "The Bergen Room" in the main building during the spring semester.

## Health Services

The medical office, located in B-101, is staffed by registered nurses for the purpose of rendering first aid, emergency care, health information, and health counseling. In addition, neighboring hospitals provide emergency medical service for more critical needs. The phone number is 447-9257.

Students, at the time of admission, will be asked to supply pertinent health and immunization information. All students admitted to Allied Health, Nursing, and Dental Hygiene programs will be notified of specific health and immunization requirements.

Any illness or discomfort a student is experiencing should be reported to the college nurse. Injuries incurred on campus, or during a college-connected activity, must be reported immediately to the college nurse, Public Safety Office or switchboard operator. If it is not possible to make an immediate report, a report must be made before 48 hours have elapsed.

## Housing

The college has no housing available.

## Specialized Services Office

The Office of Specialized Services (S-131) serves students with physical, visual, learning, hearing, and emotional disabilities. The Adaptive Technology Lab is located in this office.

## Student Center

The student center is the community center of the college, a place for all members of its family (students, faculty, administration, alumni, and guests) to meet and interact.The Student Center provides services, conveniences, and programs which all members of its family may need in their daily life on campus, and offers an informal setting for friendships to develop outside of the classroom.

The Student Center hosts various activities which the Student Activities Board (SAB), and the Student Government Association (SGA) sponsor throughout the year: daytime musicians, film festivals, entertainment, and other social activities. These activities give all members of the BCC community a chance to come together and interact.

## Veterans Services

Information and advice concerning veterans affairs and military service are available through the Office of Financial Aid, Room A-123; 447-7149.

## Welcome Center

The Welcome Center, located in the Student Center, offers weekly tours of the megastructure, and has a variety of brochures and pamphlets available about the college, as well as bus schedules, notices about activities, calendars, and other interesting information. The phone number is 447-7200.

## Wellness Center

The purpose of the Wellness Center is to promote total "wellness" which is defined as the physical, emotional, social, psychological, and spiritual state of one's health. The activities of the center include the Health Fair, the Great American Smokeout, meditation sessions, anti-violence events, Peer Support, workshops on body image and self-esteem, referrals on wellness issues and many more areas. The Center also offers programs and activities that educate regarding the use or abuse of tobacco, alcohol and other drugs. The center, which serves the college community, posts upcoming events on the door of the Wellness Center and at the Welcome Center in the Student Center. Peer Support is a student-based program, which utilizes student leadership to help peers make healthy choices. The Wellness Center is located in Room L-121B (201) 612-5365 and Peer Support is located in Room L-122A; 612-5320.

## COM M UNITY USE OF COLLEGE FACILITIES

As a public institution committed to serving all the people of Bergen County, Bergen Community College has expanded its definition of services to include encouraging the use of its Paramus campus and the Philip Ciarco Jr. Learning Center in Hackensack for public events and programs sponsored by nonprofit community groups and professional organizations. The Office of Community and Cultural Affairs (447-7428) processes requests for community use of the facilities.

Bergen Community College offers three types of degree programs:

## Associate in Arts (AA), <br> Associate in Science (AS), and Associate in Applied Science (AAS).

The academic programs at Bergen Community College are classified as transfer or career programs.

## TRANSFER (AA) and (AS) PROGRAMS

Transfer programs include a course of study which corresponds to the freshman and sophomore offerings at most colleges and universities and are designed primarily for students planning to transfer into a baccalaureate degree program. In recent years, BCC has worked to simplify the transfer process by signing articulation agreements with colleges and universities in New Jersey and throughout the United States.

Associate in Arts (AA) Degree in Liberal Arts and Sciences Liberal Arts

Options:
General Curriculum
Communication Arts
Economics
History
Literature
Philosophy and Religion
Political Science
Psychology
Social Sciences
Sociology
Women's Studies
World Languages and Cultures

## Associate in Arts (AA) Degree in Liberal Arts and Sciences Fine and Performing Arts

Options:
Art
Music Arts
General
Computer-Based Recording
Electronic Music
Music Business
Theatre Arts
General
Acting
Dance
Technical Production

Associate in Science (AS) Degree in Liberal Arts and Sciences Natural Sciences or Mathematics

Options:
General Curriculum
Biology
Chemistry
Computer Science
Mathematics
Physics
Pre-Chiropractic

## Associate in Science (AS) Option in Engineering Science <br> Associate in Science (AS) Degree in Liberal Arts and Sciences Professional Studies

Options:
General Curriculum
Broadcasting
Business Administration
Business Administration-Accounting
Business Administration-International Trade
Business Administration-Management
Business Administration- Marketing
Education
Exercise Science
Journalism

## CAREER (AAS) PROGRAMS

Career programs emphasize training needed to enter a chosen field of employment. Designed for students planning to begin a career immediately after receiving their associate degree, career programs are available in various technologies, health sciences, human services, and business. Graduates of these programs work as computer technicians, accountants, secretaries, legal assistants, law enforcement officers, commercial artists, nurses, and professionals in local and nationwide organizations.

## Associate in Applied Science (AAS) Degree

Allied Health
Dental Hygiene
Diagnostic Medical Sonography
Health Science
Medical Laboratory Technology
Medical Office Assistant
Physical Therapist Assistant
Radiography
Respiratory Therapy
Veterinary Technology

## Art

Computer Animation
Graphic Design/Computer Graphics

## Business Administration

Accounting
Banking, Credit \& Finance
Legal Assistant
Business Technologies
Hotel/Restaurant/Hospitality
Catering/Banquet Management
Food Service Management
Hospitality Management
Information Technology
Networking Administration
Office Systems Technology (Word Processing Option)
Travel and Tourism
Web Development and Management

## Human Services

Criminal Justice (full-time and part-time sequences) Early Childhood Education

Industrialand Design Technologies
Drafting \& Design Technology
Electronics Technology
General Engineering Technology
Manufacturing Engineering Technology
(CIM Engineering Technology)

## Nursing

Day and Evening sequences

## Science Technology

Environmental Technology
Horticulture
Interdisciplinary Laboratory Science Technology

## ONE YEAR CERTIFICATE PROGRAMS

Computer Aided Drafting Technology (CAD)
Computer Animation
Computer Graphics
Computer Science
Computer Technical/Help Desk Support
Culinary Arts
Desktop Publishing
Environmental Technology
Exercise Science
Floral Design
Food Service Supervision
Hospitality Management
Landscaping
Networking and Web Development
Office Studies - Word Processing
Small Business Management
Surgical Technology
Travel Service
U.S. Studies

## CERTIFICATES OF ACHIEVEMENT

Environmental Technology
Geographical Information System (GIS)
Manufacturing Design
Professional Cooking
Special Imaging for Radiologic Technologists

## CURRICULUM REQUIREMENTS

Students are advised to read the curriculum material carefully with attention to the following:

1. General education requirements

The list of requirements that precedes each group of curricula is applicable to all programs of study within that section.

## 2. Semester-by-semester-sequence

For the purpose of this publication, programs are shown in a two-year, four -semester sequence. However, students may attend BCC on a part-time basis and complete a degree in more than two years. Bergen also offers two summer sessions which provide an opportunity to accelerate studies and complete a degree in less than two academic years.
3. General education courses

Most curriculums contain general education electives that must be selected from the list on page 58 .
4. Course prerequisites

Some courses require prerequisites. Refer to the course description section to determine prerequisites.

## 5. Curricular guidelines

Guidelines may change from year to year. Students must follow the guidelines that are effective as of their matriculation date.

## DISTANCE LEARNING

Distance Learning is an integral part of Bergen Community College's program offerings. Students have the opportunity to take courses in three different delivery modes - telecourses, interactive television, and online via the Internet. All distance learning courses are the equivalent of their traditional on-campus counterparts. They cover the same subject matter, carry the same credit, and are taught by BCC faculty. Distance learning courses are available fall, spring, and summer semesters.

Distance Learning provides students with a more flexible way of attending BCC. When enrolled in an online course, a student does not attend classes at all but participates in an online learning community. When enrolled in a telecourse, students view professional quality videos on their own and attend four seminars during the semester. Interactive television courses require regular class attendance, but other students or the instructor may be at different locations. Each of these delivery modes offers its own distinct advantages. Each is designed to meet different student needs. Regardless of the delivery mode, students taking distance learning courses will have ready access to the faculty member by phone, email, and through scheduled office hours.
Please check the Spring, Fall, and Summer Registration Books for courses offered each semester in the Distance Learning mode.
BCC is a member of the New Jersey Virtual Community College Consortium.

## Programs at a Glance

| AA ...........Associate in Art | CERT ....Certificate |
| :--- | :---: |
| AS ..........Associate in Science | C of A ....Certificate of Achievement |
| AAS .........Associate in Applied Science |  |

CODE ........................DEGREE PROGRAM ..... PAGE
AAS.AH.DENTL ............................AAS ....Allied Health, Dental Hygiene § ..... 81
AAS.AH.DM S .AAS ...Allied Health, Diagnostic M edical Sonography § ..... 81
AAS.H.HLTH.SCI .AAS ...Allied Health, Health Science $\dagger$ ..... 82
AAS.AH.MLT .AAS ...Allied Health, M edical Laboratory Technology § ..... 82
AAS.AH.M OA .AAS ...Allied Health, M edical Office Assistant § ..... 83
AAS.AH.PTA .AAS ...Allied Health, Physical Therapist Assistant § ..... 83
AAS.AH.RAD .AAS .. .Allied Health, Radiography § ..... 84
AAS.AH.RESP .AAS ...Allied Health, Respiratory Therapy § ..... 84
AAS.H.VET .AAS .. Allied Health, Veterinary Technology ..... 85
AAS.IDT.ANIM .AAS . . .Art, Computer Animation ..... 86
AAS.IDT.GRPH .AAS ...Art, Graphic Design/Computer Graphics ..... 86
AAS.BUS.ACCT .AAS ...Business Administration, Accounting ..... 87
AAS.BUS.BANK .AAS ...Business Administration, Banking, Credit and Finance ..... 87
AAS.BUS.LEGAL .AAS . . .Business Administration, Legal Assistant ..... 88
AAS.BT.HR.CATER .AAS .. .Business Technologies, Hotel/Restaurant - Catering \& Banquet M anagement ..... 89
AAS.BT.HR.FOOD .AAS ...Business Technologies, Hotel/Restaurant - Food Service M anagement ..... 89
AAS.BT.HR.HOSP .AAS ...Business Technologies, Hotel/Restaurant - Hospitality M anagement ..... 90
AAS.BT.INFO .AAS ...Business Technologies, Information Technology ..... 91
AAS.BT.NET.ADM .AAS ...Business Technologies, Netw orking Administration ..... 92
AAS.BT.OS.W ORD .AAS ...Business Technologies, Office Systems Technology- W ord Processing ..... 92
AAS.BT.TRAVL .AAS ...Business Technologies, Travel and Tourism ..... 93
AAS.BT.WEB.M GMT AAS ...Business Technologies, W eb Development and M anagement ..... 93
CERT.CAD Cert . . .Computer Aided Drafting ..... 101
CERT.COM P.ANIM Cert ...Computer Animation *** .....  102
CERT.COM P.GRAPH Cert ...Computer Graphics .....  102
CERT.COM P.SCI Cert ...Computer Science ..... 101
CERT.COM P.HELP.DESK Cert ...Computer Technical/Help Desk Support ..... 103
CERT.CULN.ARTS Cert ...Culinary Arts .....  103
CERT.DESK.PUB .Cert . . .Desktop Publishing ..... 103
AS.ENGIN.SCI .AS ....Engineering Science ..... 73
CERT.ENV.TECH Cert ...Environmental Technology ..... 103
COA.ENV C of A. .Environmental Technology $\uparrow$ .....  107
CERT.EXER.SCI . Cert ...Exercise Science ..... 104
AA.FPA.ART .AA .... Fine and Performing Arts, Art .....  62
AA.FPA.M USC .AA .... Fine and Performing Arts, M usic Arts - General M usic ..... 62
AA.FPA.M USC.COM P .AA .... Fine and Performing Arts, M usic Arts - Computer-Based Recording ..... 63
AA.FPA.MUSC.ELEC .AA .....Fine and Performing Arts, M usic Arts - Electronic M usic ..... 63
AA.FPA.MUSC.BUS .AA .... .Fine and Performing Arts, M usic Arts - M usic Business ..... 64
AA.FPA.THTR AA .... Fine and Performing Arts, Theatre - General ..... 64
AA.FPA.THTR.ACT AA .... Fine and Performing Arts, Theatre - Acting ..... 65
AA.FPA.THTR.DAN AA .... .Fine and Performing Arts, Theatre - Dance ..... 65
AA.FPA.THTR.TECH .AA .... Fine and Performing Arts, Theatre - Technical Production ..... 66
CERT.FLORAL Cert ...Floral Design ..... 104
CERT.FOOD.SERVICE Cert ...Food Service Supervision ..... 104
COA.GIS C of A . .Geographical Information Systems .....  107
CERT.HOSP.M GM T .Cert . . .Hospitality M anagement ..... 104
§ In order to be considered for admission, you must submit the follow ing documents. Allied Health and Nursing applicant checklist, and all official academic credentials such as high school record, GED scores, and any college transcripts. International students are not eligible to apply for these programs until they have completed their first semester.

- International students are not eligible for this program.
*** These certificate programs are designed for practicing professionals in these fields.
$\dagger$ These programs are for practicing professionals whose experience in the field has gained them the equivalent of the first year of study in a two-year program.


## Programs at a Glance

CODE DEGREE PROGRAM ..... PAGE
AAS.HS.CRIMJ.FT .AAS .. .Human Services, Criminal J ustice - Full-time ..... 94
AAS.HS.CRIMJ.PT .AAS ...Human Services, Criminal J ustice - Part-time ..... 94
AAS.HS.EARLY.CHILD .AAS ...Human Services, Early Childhood Education ..... 95
AAS.IDT.DRAFT . . . . . . . . . . . . . . . . . . AAS . . .Industrial \& Design Technologies, Drafting and Design Technology ..... 96
AAS.IDT.ELECT.TECH .AAS ...Industrial \& Design Technologies, Electronics Technology ..... 96
AAS.IDT.ET.GEN .AAS ...Industrial \& Design Technologies, Engineering Technology. - General ..... 97
AAS.IDT.ET.M FTG .AAS ...Industrial \& Design Technologies, Engineering Technology. - M anufacturing ..... 97
CERT.LAND Cert ...Landscaping $\downarrow$ ..... 105
AA.LA.GEN .AA .... Liberal Arts - General ..... 60
AA.LA.COMM .AA ... . Liberal Arts - Communication Arts ..... 60
AA.LA.ECON .AA .... Liberal Arts - Economics ..... 60
AA.LA.HIST .AA ... . Liberal Arts - History ..... 60
AA.LA.LIT .AA ... . Liberal Arts - Literature ..... 60
AA.LA.PHIL .AA ... .Liberal Arts - Philosophy and Religion ..... 60
AA.LA.POLI.SCI .AA ... .Liberal Arts - Political Science ..... 60
AA.LA.PSY AA .... Liberal Arts - Psychology ..... 60
AA.LA.SOC.SCI .AA .... Liberal Arts - Social Sciences ..... 60
AA.LA.SOC .AA ... . Liberal Arts - Sociology ..... 60
AA.LA.W M ST .AA ... .Liberal Arts - Women's Studies ..... 60
AA.LA.FORGN.LANG .AA .... Liberal Arts - W orld Languages and Cultures ..... 60
COA.M FTG.DESIGN C of A . .M anufacturing Design * ..... 107
CERT.NET.WEB Cert . . .Netw orking and W eb Development ..... 105
AS.NSM.GEN .AS .... Natural Sciences or M ath - General ..... 68
AS.NSM.BIO .AS ....Natural Sciences or Math - Biology ..... 68
AS.NSM.CHEM .AS .....Natural Sciences or Math - Chemistry ..... 69
AS.NSM.COM P.SCI AS .... Natural Sciences or Math - Computer Science ..... 69
AS.NSM.MATH .AS .... Natural Sciences or Math - M athematics ..... 70
AS.NSM.PHYSC .AS .... Natural Sciences or M ath - Physics ..... 70
AS.NSM.CHIR .AS .... Natural Sciences or Math - Pre-Chiropractic ..... 71
AAS.NURS.DAY .AAS ...Nursing - Day §* ..... 98
AAS.NURS.EVE .AAS ...Nursing - Evening §** ..... 98
CERT.OFFICE.W ORD Cert. . . .Office Studies - W ord Processing ..... 105
COA.PROF.COOK C of A . .Professional Cooking $\dagger$ .....  107
AS.PS.GEN .AS ....Professional Studies - General ..... 75
AS.PS.BRCAST .AS ....Professional Studies - Broadcasting ..... 75
AS.PS.BUS.ADM .AS .... Professional Studies - Business Administration ..... 76
AS.PS.BUS.ACCT .AS ....Professional Studies - Business Administration - Accounting ..... 76
AS.PS.BUS.INTL .AS .... Professional Studies - Business Administration - International Trade ..... 77
AS.PS.BUS.M GM T .AS .... Professional Studies - Business Administration - M anagement ..... 77
AS.PS.BUS.M KTG .AS ....Professional Studies - Business Administration - M arketing ..... 78
AS.PS.EDUC .AS ....Professional Studies - Education ..... 78
AS.PS.EXER .AS ....Professional Studies - Exercise Science ..... 79
AS.PS.J OUR .AS ....Professional Studies - J ournalism ..... 79
AAS.ST.ENV ...........................AAS ...Science Technology - Environmental Technology ..... 99
AAS.ST.HORT .AAS ...Science Technology - Horticulture ..... 99
AAS.ST.LST AAS .. Science Technology - Interdisciplinary Laboratory Science Technology ..... 100
CERT. SM.BUS.M GM T . . . . . . . . . . . . . Cert . . .Small B usiness M anagement ..... 105
COA.SPEC.IMAG.RAD C of A. .Special Imaging, Radiologic Technologist $\dagger$ ..... 107
CERT.SURG Cert . . .Surgical Technology $\$$ ..... 106
CERT.TRAVEL Cert ...Travel Service ..... 106
CERT.US Cert ...United States Studies ..... 106

- International students are not eligible for this program
§ In order to be considered for admission, you must submit the following documents: Allied Health and Nursing applicant checklist, and all official academic creden-tials such as high school record, GED scores, and any college transcripts. International students are not eligible to apply for these programs until they have com-pleted their first semester.
* The day Nursing program considers applications only for the Fall semester
** The evening Nursing program considers applications only for the Spring semester.$\dagger$ These programs are for practicing professionals whose experience in the field has gained them the equivalent of the first year of study in a two year program.


## COURSES APPROVED FOR GENERAL EDUCATION

The following courses approved for the purposes of general education at Bergen Community College are regarded as general education courses at many, but not all, other colleges and universities in New J ersey and other states. Students who intend to transfer into bachelor's degree programs should consult with a transfer counselor at Bergen Community College to determine which of the following courses will meet general education requirements at the colleges or universities of their choice.
I. COMMUNICATION

COM 101 Mass M edia of Communication
SPE111 Speech Communication WRT101 English Composition I WRT201 English Composition II

## II. HUMANITIES

FINE ARTS
ART101 Art Appreciation
ART102 Art History through the Renaissance
ART103 Art History since the Renaissance
MUS101 Music Appreciation
MUS107 Music History I
MUS108 Music History II
MUS110 Music, Art, and Drama
THR101 Introduction to Theatre
THR140 Introduction to Cinema

## HISTORY

HIS101 History of Western Civilization to the Reformation
HIS102 History of Western Civilization since the Reformation
HIS105 Women in History
HIS106 History of M odern Europe to the French Revolution
HIS107 History of M odern Europe since the French Revolution
HIS111 US History to Reconstruction
HIS112 US History since Reconstruction
HIS113 History of 20th Century US to World War II
HIS114 History of 20th Century US since W orld War II
HIS116 Women in American History
HIS121 M odern Asian History
HIS126 Modern African History
HIS130 Latin American History to Independence
HIS131 Latin American History since Independence
HIS144 Contemporary American Issues and Problems

## Iterature

LIT201 American Literature to 1880
LIT202 American Literature, 1880 to the Present
LIT203 World Literature to 1650
LIT204 W orld Literature, 1650 to the Present
LIT205 English Literature to 1800

## Literature (continued)

LIT206 English Literature, 1800 to the Present
LIT215 The Black Literary Voice in America
LIT216 European Literature to 1650
LIT217 European Literature, 1650 to the Present
LIT218 American Ethnic Literature
Social Aspects of Literature
LIT224 Topics in International Literature
LIT228 Women in Literature

## PHILOSOPHY and RELIGION

PHR101 Introduction to Philosophy
PHR102 Ethics
PHR103 Basic Logic
PHR104 Topics in Philosophy
PHR105 Ethics in Business and Society
PHR106 Eastern Philosophy
PHR110 Introduction to M oral Philosophy
PHR120 Introduction to Religion
PHR121 Religions of the W orld
PHR122 Women and Religion
PHR203 Intermediate Logic

## WORLD LANGUAGES AND CULTURES

LAN110 Frenchl
LAN200 Frenchll
LAN201 Intermediate French I
LAN202 Intermediate French II
LAN111 German I
AN210 German II
LAN211 Intermediate German I
LAN212 Intermediate German II
LAN144 |rishl
LAN244 Irish II
LAN245 Intermediate Irish
LAN112 Italian I
LAN220 Italian II
LAN221 Intermediate Italian I
LAN222 Intermediate Italian II
LAN 120 Japanese I
LAN260 Japanese II
LAN261 IntermediateJapanese।
LAN165 Korean
LAN265 Korean II
AN114 Russian
LAN240 Russian II
LAN241 Intermediate Russian
LAN113 Spanishl
LAN230 Spanish II

[^2]$\dagger$ Some colleges may require both BIO109 and BIO209 before transfer credit is aw arded.
-These courses satisfy the BCC Diversity Requirement

The development of critical thinking and writing skills is essential to a student's success in the Bergen Community College General Education Program. Therefore, the college's general education courses provide students with the opportunity to develop these skills through a variety of appropriate critical thinking and writing assignments. Students are advised to review the specific general education requirements in their respective programs of study.

## W orld Languages (continued)

LAN231 Intermediate Spanish।
LAN232 Intermediate Spanish II
LAN228 Elementary Spanish for Heritage Speakers
LAN229 Intermediate Spanish for Heritage Speakers
III. NATURAL SCIENCES and M ATHEMATICS

## BIOLOGY

BIO101 General Biology I*
BIO103 The Human Body*
BIO104 Microbiology*
BIO107 Intro to Human Biology*
BIO108 Intro to Environmental Biology*
BIO109 Anatomy and Physiology ${ }^{*} \dagger \dagger$
BIO209 Anatomy and Physiology II* $\dagger$
BIO131 General Botany*
BIO203 General Biology II*

## CHEMISTRY

CHM 100 Introduction to Chemistry*
CHM 112 College Chemistry*
CHM 140 General Chemistry I*
CHM 141 General Chemistry I-Lab*
CHM 240 General Chemistry II* CHM 241 General Chemistry II-Lab*

## EARTHSCIENCE

ESC111 Astronomy*
ESC112 Climatology*
ESC113 Geology*
ESC114 Meteorology Physics*

## PHYSICS

PHY185 Introduction to Physics*
PHY186 General Physics I*
PHY190 Physics ${ }^{*}$
PHY286 General Physics II*
PHY290 Physics II*
PHY291 Physics III*
MATHEM ATICS and
COMPUTER SCIENCE
MAT130 Introduction to Mathematics
MAT150 Elementary Statistics
MAT155 Finite Mathematics
MAT163 Computer Programming: QBASIC
MAT165 C++Programming I
MAT180 Precalculus: College Algebra and Trigonometry
M AT223 Calculus for M anagerial and Social Sciences
MAT250 Statistical Analysis

## Mathematics (continued)

M AT266 Computer Programming: Visual BASIC
MAT280 Calculus I
MAT281 Calculus II
MAT282 Calculus III

## IV. SOCIAL SCIENCES

## ANTHROPOLOGY

ANT101 Cultural Anthropology

## ECONOMICS

ECO101 Macro Economics
ECO201 Micro Economics

## GEOGRAPHY

GE0101 Geography

## POLITICAL SCIENCE

POL101 American Government
POL102 International Relations
POL103 M odern Political Ideologies
POL104 State and Local Government
POL107 Introduction to Politics

## PSYCHOLOGY

PSY101 General Psychology
PSY102 Abnormal Psychology
PSY106 Developmental Psychology
PSY201 Child Psychology
PSY207 Psychology of W omen

## SOCIOLOGY

SOC101 Sociology
SOC103 Sociology of the Family
SOC120 Sociology of Gender Roles
SOC121 Changing Roles of Women
SOC201 Social Problems
SOC222 Ethnic and M inority Group Relations
V. WELLNESS and EXERCISE SCIENCE
WEX101 Dynamics of Health and Fitness
WEX201 DHF-EXP-Aerobic Dance
WEX202 DHF-EXP-Body Conditioning
WEX204 DHF-EXP-Keep Young, Fit and Alive
WEX205 DHF-EXP-Swimming for Conditioning
W EX206 DHF-EXP-Weight Training
WEX208 DHF-EXP-40+Fitness

TRANSFER PROGRAMS

## ASSOCIATE IN ARTS (AA) DEGREE IN LIBERAL ARTS

To earn the AA degree in Liberal Arts, a student must meet the following curriculum requirements:

| Area of Study | Credits | Courses |
| :---: | :---: | :---: |
| Communications | 9 | W RT101 English Composition I ( 3 cr .) W RT201 English Composition II (3 cr.) SPE111 Speech Communication (3 cr.) |
| Humanities | 24 | Two general education courses ( 6 cr .) in History (HIS) <br> Six general education courses ( 18 cr .) to be selected from the follow ing fields, with no more than two courses ( 6 cr .) in any one field: <br> Fine Arts (Art [ART], M usic [M US], Theatre Arts [THR]) <br> World Languages and Cultures (LAN) <br> Literature (LIT) <br> Philosophy and Religion (PHR) |
| Social Sciences | 9 | Three general education courses ( 9 cr .) to be selected from the follow ing fields, with no more than two courses ( 6 cr .) in any one field: <br> Economics (ECO) <br> Geography (GEO) <br> Political Science (POL) <br> Psychology (PSY) <br> Sociology (SOC) and Anthropology (ANT) |
| M athematics | 6 | Two general education courses (6 cr.) in M athematics/Computer Science (MAT)* |
| Natural Sciences | 8 | Two general education courses ( 8 cr .) to be selected from the following fields: <br> Biology (BIO) <br> Chemistry (CHM ) <br> Physics (PHY) or Earth Science (ESC) |
| W ellness and Exercise Science | 3 | W EX101 Dynamics of Health and Fitness (2 cr.) WEX... Dynamics of Health and Fitness Experience ( 1 cr.$)^{* *}$ |
| Free Electives | 6 |  |
| Diversity Requirement: | In comp gender | BCC General Education Program, a student must take and pass at least one course in on-w estern history or thought, and/or cultural diversity.*** |

* Choose one of the following: M AT150, M AT180, M AT223, or M AT280; plus choose a second course from the general education electives in Mathematics and Computer Science on page 58.
** Choose one of the following: W EX201, W EX202, W EX204, W EX205, W EX206, WEX208
*** Choose at least one of the following: ANT101; HIS105; HIS116; HIS121; HIS126; HIS130; HIS131; LIT203; LIT204; LIT215; LIT218; LIT224; LIT228; PHR106; PHR121; PHR122; PSY207; SOC120; SOC121; SOC222.


## ASSOCIATE IN ARTS (AA) DEGREE IN LIBERAL ARTS

It is recommended that the student fulfill the preceding requirements in accordance with the following semester-by-semester sequence.

## GENERAL CURRICULUM CODE AA.LA.GEN

| First Semester |  |  |
| :---: | :---: | :---: |
| HIS... | History Elective* | 3 |
|  | Humanities Elective** | 3 |
| MAT... | Restricted M ath Elective*** | 3 |
| SPE111 | Speech Communication | 3 |
| W EX101 | Dynamics of Health \& |  |
|  | Fitness | 2 |
| W RT101 | English Composition I | 3 |
|  |  | 17 |
| Sec ond Semester |  |  |
| HIS... | History Elective* | 3 |
| ... | Humanities Electives** | 3 |
| MAT... | M athematics Elective $\dagger$ | 3 |
| ... ... | Social Science Elective $\dagger$ | 3 |
| WEX... | Dynamics of Health \& |  |
|  | Fitness Experience | 1 |
| W RT201 | English Composition II | 3 |
|  |  | 16 |
| Third Semester |  |  |
| ... | Free Electives | 3 |
| . | Humanities Electives** | 6 |
| ... ... | Natural Sciences Elective $\dagger$ | 4 |
| ... ... | Social Science Elective $\dagger$ | 3 |
|  |  | 16 |
| Fourth Semester |  |  |
| ... ... | Free Electives | 3 |
| ... | Humanities Electives** | 6 |
| ... ... | Natural Sciences Elective $\dagger$ | 4 |
| ... ... | Social Science Elective $\dagger$ | 3 |
|  |  | 16 |

Diversity Requirement: In completing the BCCGeneral Education Program, a student must take and pass at least one course in gender studies, non-western history or thought, and/or cultural diversity. Choose from the following Humanities and Social Sciences electives: ANT101; HIS105; HIS116; HIS121; HIS126; HIS130; HIS131; LIT203; LIT204; LIT215; LIT218; LIT224; LIT228; PHR106; PHR121; PHR122; PSY207; SOC120; SOC121; SOC222.

[^3]If a student in the Liberal Arts wishes to "major" in a given area of study, he or she may do so by choosing a combination of general education courses and free electives in one of the following options: Communication Arts, Economics, History, Literature, Philosophy and Religion, Political Science, Psychology, Social Sciences, Sociology, W omen's Studies, W orld Languages and Cultures

## OPTIONAL AREAS OF CONCENTRATION

## COMM UNICATION ARTS CODE AA.LA.COMM

In addition to the required general education courses in Communications (W RT101 English Composition I, W RT201 English Composition II, and SPE111 Speech Communication), the student should take one free elective in COM 101 M ass Media of Communications ( 3 credits) and one free elective in another Mass Communications (COM ) course (3 credits).

## ECONOMICS CODE AA.LA.ECON

The student should take two general education Social Science electives in Economics ( 6 credits) and two free electives in Economics (6 credits).

## HISTORY CODE AA.LA.HIST

The student should take two general education Humanities elective in History ( 6 credits) and two free electives in History ( 6 credits).

## LITERATURE CODE AA.LA.LIT

The student should take two general education Humanities electives in Literature ( 6 credits) and tw o free electives in Literature (6 credits).

## PHILOSOPHY AND RELIGION CODEAA.LA.PHIL

The student should take tw o general education Humanities electives in Philosophy and/or Religion ( 6 credits) and two free electives in Philosophy and/or Religion ( 6 credits).

## POLITICAL SCIENCE CODE AA.LA.POLI.SCI

The student should take two general education Social Science electives in Political Science ( 6 credits) and two free electives in Political Science (6 credits).

## PSYCHOLOGY CODE AA.LA.PSY

The student should take two general education Social Science electives in Psychology ( 6 credits) and two free electives in Psychology ( 6 credits).

## SOCIAL SCIENCES CODE AA.LA.SOC.SCI

The student should take three general education Social Science Electives in Anthropology, Economics, Political Science, Geography, Psychology, or Sociology (9 credits) and two free electives in Anthropology, Economics, Political
Science, Geography, Psychology, or Sociology ( 6 credits).

## SOCIOLOGY CODE AA.LA.SOC

The student should take two general education Social Science electives in Sociology and/or Anthropology ( 6 credits) and two free electives in Sociology and/or Anthropology ( 6 credits).

## WOMEN'S STUDIES CODE AA.LA.WMST

The student should take two general education electives in Women's Studies ( 6 credits) and tw o free electives in Women's Studies ( 6 credits).

## WORLD LANGUAGES AND CULTURES CODE AA.LA.FORGN.LANG

The student should take two general education Humanities electives in W orld Languages ( 6 credits) and tw o free electives in W orld Languages and Cultures ( 6 credits).

TRANSFER PROGRAMS

## ASSOCIATE IN ARTS (AA) DEGREE IN FINE AND PERFORMING ARTS

To earn the AA degree in Fine and Performing Arts, a student must meet the following curriculum requirements:

| Area of Study | Credits | Course |
| :---: | :---: | :---: |
| Communications | 9 | W RT101 English Composition I (3 cr.) W RT201 English Composition II (3 cr.) SPE111 Speech Communic ation (3 cr.) |
| Humanities | 21 | Two general education courses ( 6 cr .) in History (HIS) <br> Five general education courses ( 15 cr .) to be selected from the following fields, with no more than two courses ( 6 cr .) in any one field: <br> Fine Arts ( Art [ART], M usic [M US], Theatre Arts [THR]) <br> World Languages and Cultures (LAN) <br> Literature (LIT) <br> Philosophy and Religion (PHR) |
| Social Sciences | 6 | Two general education courses ( 6 cr .) to be selected from two of the following fields: <br> Economics (ECO) <br> Geography (GEO) <br> Political Science (POL) <br> Psychology (PSY) <br> Sociology (SOC) and Anthropology (ANT) |
| Mathematics | 3 | One general education course (3 cr.) in M athematics/Computer Science (M AT) |
| Natural Sciences | 4 | One general education course ( 4 cr .) to be selected from the following fields: <br> Biology (BIO) <br> Chemistry (CHM) <br> Physics (PHY) or Earth Science (ESC) |
| Wellness and Exercise Science | 3 | W EX101 Dynamics of Health and Fitness (2 cr.) <br> W EX... Dynamics of Health and Fitness Experience ( 1 cr .) * |
| Restricted Courses | 18-20 |  |
| Diversity Requirement: | In comp gender | BCC General Education Program, a student must take and pass at least one course in non-western history or thought, and/or cultural diversity.** |

## TRANSFER PROGRAMS

## ASSOCIATE IN ARTS (AA) DEGREE IN FINE AND PERFORMING ARTS

To fulfill the preceding requirements, a student in Fine and Performing Arts must major in Art, M usic, or Theatre Arts and must follow one of the programs of study outlined below:

| ART OPTION CODE AA.FPA.ART |  |  |
| :---: | :---: | :---: |
| First Semester ART123 Life Drawing |  |  |
|  | or | 3 |
| ART124 | Drawing Fundamentals |  |
| ART122 | Two-Dimensional Design | 3 |
| ART126 | Introduction to Computer |  |
|  | Graphics* | 3 |
| SPE111 | Speech Communication | 3 |
| W RT101 | English Composition I | 3 |
| W EX101 | Dynamics of Health \& Fitness | 2 |
|  |  | IT |
| Sec ond Semester |  |  |
| ART227 | Painting I | 3 |
| ...... | Humanities Electives ${ }^{* * *}$ | 6 |
| M AT... | M athematics Elective*** | 3 |
| W RT201 | English Composition II | 3 |
| W EX... | Dynamics of Health \& Fitness |  |
|  | Experience*** | 1 |
|  |  | 16 |
| Third Semester |  |  |
| ART... | Studio Art Elective $\ddagger$ | 3 |
| HIS... | History Elective | 3 |
| ...... | Humanities Elective** $\dagger$ | 3 |
| ...... | Natural Sciences Elective*** | 4 |
| ...... | Social Science Elective*** | 3 |
|  |  | 16 |
| Fourth Semester |  |  |
| ART... | Studio Art Elective $\ddagger$ | 3 |
| HIS... | History Elective | 3 |
| ...... | Humanities Electives** | 6 |
| ...... | Social Science Elective*** | 3 |
|  |  | 15 |
| * Course uses Macintosh computers <br> **General Education Elective in Fine Arts, W orld Languages, Literature, or Philosophy \& Religion - see page 58 |  |  |
| ${ }^{* * *}$ General Education Elective - see page 58 |  |  |
| $\dagger$ Recommended: ART101 Art Appreciation; ART102 Art History Through the Renaissance; ART103 Art History Since the Renaissance |  |  |
| Recommended: ART181 Photo I, ART281 Photo II |  |  |

## MUSIC ARTS - GENERAL MUSIC ARTS OPTION <br> CODE AA.FPA.MUSC

## First Semester

MUS131 Class Piano I2
MUS... Music Elective ..... 3
Social Science Elective* ..... 3
SPE111 Speech Communication ..... 3
WRT101 English Composition I ..... 3
Humanities Elective** ${ }^{*}$ ..... 3
$-17$
Sec ond Semester
MUS231 Class Piano II ..... 2
MUS... Music Elective ..... 3
W RT201 English Composition II ..... 3
...... Humanities Elective** $\dagger$ ..... 3
MAT... M athematics Elective* ..... 3
...... Social Science Elective* ..... 3Third Semester
MUS132 Music Theory I 2
MUS107 Music History I ..... 3
HIS... History Elective*** ..... 3
Humanities Elective** ..... 3
..... Natural Sciences Elective* ..... 4
WEX101 Dynamics of Health \& Fitness ..... 2
$-17$
Fourth Semester
M US232 M usic Theory II ..... 2
MUS108 M usic History II ..... 3
HIS... History Elective*** ..... 3
WEX... Dynamics of Health \& Fitness Experience* ..... 1
Humanities Electives** ..... 6$-15$

[^4]
## MUSIC ARTS - COMPUTER-BASED RECORDING OPTION

 CODE AA.FPA.MUSC.COMP
## First Semester

| MUS131 | Class Piano I | 2 |
| :--- | :--- | :--- |
| M US151 | Computer-Based Recording I | 3 |
| $\ldots . .$. | Social Science Elective* | 3 |
| SPE111 | Speech Communication | 3 |
| WRT101 | English Composition I | 3 |
| ...... | Humanities Elective** | 3 |

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\overline{17}
$$

## Second Semester

| M US231 | Class Piano II | 2 |
| :--- | :--- | :--- |
| M US251 | Computer-Based Recording II | 3 |
| WRT201 | English Composition II | 3 |
| $\ldots . .$. | Humanities Elective** | 3 |
| M AT... | Mathematics Elective* | 3 |
| ...... | Social Science Elective* | 3 |


| Third Semester |  |  |
| :---: | :---: | :---: |
| M US132 | M usic Theory I | 2 |
| M US107 | M usic History I | 3 |
| HIS... | History Elective*** | 3 |
| ...... | Humanities Elective** | 3 |
|  | Natural Sciences Elective* | 4 |
| WEX101 | Dynamics of Health \& |  |
|  | Fitness | 2 |
|  |  | 17 |
| Fourth Semester |  |  |
| M US232 | M usic Theory II | 2 |
| M US108 | M usic History II | 3 |
| HIS... | History Elective*** | 3 |
| WEX... | Dynamics of Health \& |  |
|  | Fitness Experience* | 1 |
| ...... | Humanities Electives** | 6 |

[^5]MUSIC ARTS - ELECTRONIC MUSIC OPTION CODE AA.FPA.MUSC.ELEC

## First Semester

| M US131 | Class Piano I | 2 |
| :--- | :--- | :---: |
| M US150 | Electronic Music I | 3 |
| $\ldots . . .$. | Social Science Elective* | 3 |
| SPE111 | Speech Communication | 3 |
| W RT101 | English Composition I | 3 |
| $\ldots . . .$. | Humanities Elective** $\dagger$ | 3 |
|  |  | -17 |

## Second Semester

| M US231 | Class Piano II | 2 |
| :--- | :--- | :---: |
| M US250 | Electronic M usic II | 3 |
| W RT201 | English Composition II | 3 |
| $\ldots . .$. | Humanities Elective** $\dagger$ | 3 |
| M AT... | M athematics Elective* | 3 |
| ...... | Social Science Elective* | 3 |
|  |  | -17 |

## Third Semester

| M US132 | M usic Theory I | 2 |
| :--- | :--- | :--- |
| MUS107 | M usic History I |  |

MUS107 Music History I 3
HIS... History Elective*** 3
...... Humanities Elective** 3
...... Natural Sciences Elective* 4
WEX101 $\begin{aligned} & \text { Dynamics of Health \& } \\ & \text { Fitness }\end{aligned}$
$-17$
Fourth Semester

| M US232 | M usic Theory II | 2 |
| :--- | :--- | :---: |
| M US108 | M usic History II | 3 |
| HIS... | History Elective*** | 3 |
| W EX... | Dynamics of Health \& |  |
|  | Fitness Experience* | 1 |
| ...... | Humanities Electives** | 6 |
|  |  | $-\overline{15}$ |

[^6]


THEATRE ARTS - TECHNICAL PRODUCTION OPTION CODE AA.FPA.THTR.TECH

## First Semester

| $\ldots \ldots .$. | 3 |  |
| :--- | :--- | :--- |
| SPE111 | Humanities Elective* $\dagger$ | 3 |
| THR110 | Basic Acting Techniques | 3 |
| THR131 | Introduction to Stagecraft \& Lighting | 3 |
| WRT101 | English Composition I |  |


|  |  | $-\overline{15}$ |
| :--- | :--- | :--- |
| Second Semester |  |  |
| COM 106 | TV Production |  |
| $\ldots .$. | Humanities Elective* |  |
| MAT... | M athematics Elective** | 3 |
| $\ldots .$. | Social Science Elective** | 3 |
| THR120 | Stage Makeup | 3 |
| WET201 | English Composition II | 1 |
|  |  | 3 |

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\overline{1} \overline{6}
$$

## Third Semester

| HIS... | History Elective*** | 3 |
| :--- | :--- | :--- |
| $\ldots . .$. | Humanities Electives* | 6 |
| $\ldots .$. | Natural Sciences Elective** | 4 |
| THR117 | Theatre Performance \& Production | 2 |
| WEX101 | Dynamics of Health \& Fitness | 2 |

Fourth Semester

| HIS... | History Elective*** | 3 |
| :--- | :--- | :--- |
| $\ldots . .$. | Humanities Elective* | 3 |
| THR116 | Theatre Production W orkshop | 4 |
| THR136 | Stage Electrics | 3 |
| $\ldots .$. | Social Science Elective** | 3 |
| WEX... | Dynamics of Health $\&$ Fitness <br> $\quad$ Experience** |  |
|  |  | 1 |

$$
-\overline{17}
$$

* General Education Elective in Fine Arts, W orld Languages, Literature, or Philosophy \& Religion - see page 58
** General Education Elective - see page 58
*** General Education Elective in History - see page 58
$\dagger$ Recommended: THR101 Introduction to Theatre;
M US110 M usic, Art, and Drama; THR140 Introduction to Cinema.


## TRANSFER PROGRAMS

## ASSOCIATE IN SCIENCE (AS) DEGREES IN LIBERAL ARTS AND SCIENCES

Associate in Science (AS) degree programs are designed to prepare students for transfer into bachelor's degree programs in fouryear colleges and universities. The minimum requirement for graduation in such programs is 64 degree credits and completion of all courses and specific requirements listed within the student's chosen curriculum.

Bergen Community College offers a three-track program to students seeking to earn the Associate in Science (AS) degree:
(1) Students may pursue the AS degree with options in Natural Sciences or Mathematics by following a program of study in General Science, Biology, Chemistry, Computer Science, M athematics, Physics, or Pre-Chiropractic.
(2) Students may pursue the AS degree with an option in Engineering Science.
(3) Students may pursue the AS degree with options in Professional Studies by following a program of study in General Professional Studies, Broadcasting, Business Administration, Education, Exercise Science, or J ournalism.

## ASSOCIATE IN SCIENCE (AS) DEGREE OPTIONS IN NATURAL SCIENCES OR MATHEM ATICS

To earn the AS degree in Natural Sciences or $M$ athematics, a student must meet the follow ing curriculum requirements:

| Area of Study | Credits | Courses |
| :---: | :---: | :---: |
| Communications | 9 | W RT101 English Composition I ( 3 cr .) W RT201 English Composition II (3 cr.) SPE111 Speech Communication (3 cr.) |
| Humanities | 12 | Four general education courses ( 12 cr .) to be selected from at least three of the follow ing fields: <br> Fine Arts (Art [ART], M usic [M US], Theatre Arts [THR]) <br> World Languages and Cultures(LAN) <br> History (HIS) <br> Literature (LIT) <br> Philosophy and Religion (PHR) |
| Social Sciences | 6 | Two general education courses ( 6 cr .) to be selected from two of the following fields: <br> Economics (ECO) <br> Geography (GEO) <br> Political Science (POL) <br> Psychology (PSY) <br> Sociology (SOC) and Anthropology (ANT) |
| $M$ athematics | 8 | Two general education courses (8 cr.) in M athematics/Computer Science (M AT)* |
| Natural Sciences | 8 | Two general education courses ( 8 cr .) to be selected from the following fields: <br> Biology (BIO) <br> Chemistry (CHM) <br> Physics (PHY) or Earth Science (ESC) |
| Wellness and Exercise Science | 3 | WEX101 Dynamics of Health and Fitness (2cr.) <br> WEX... Dynamics of Health and Fitness Experience ( 1 cr .) ${ }^{* *}$ |
| Restricted Courses | 18-20 |  |
| Diversity Requirement: | In comp gender | BCCGeneral Education Program, a student must take and pass at least one course in non-western history or thought, and/or cultural diversity.*** |

[^7]| GENERAL SCIENCE CURRICULUM CODE AS.NSM.GEN |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| W EX101 | Dynamics of Health and Fitness | 2 |
|  | M athematics Elective* | 4 |
|  | Natural Sciences Elective in |  |
|  | Biology, Chemistry, Earth Science, |  |
|  | or Physics* ${ }^{\text {* }}$ | 4 |
| SPE111 W RT101 | Speech Communication | 3 |
|  | English Composition I | 3 |
|  |  | -16 |
| Second Semester |  |  |
|  | Humanities Elective* | 3 |
| MAT... | M athematics Elective* $\dagger$ | 4 |
|  | Natural Sciences Elective in |  |
|  | Biology, Chemistry, Earth Science, |  |
|  | or Physics* | 4 |
|  | Social Science Elective* | 3 |
| WRT201 | English Composition II | 3 |
|  |  | -17 |
| Third Semester |  |  |
| WEX... | Dynamics of Health \& Fitness |  |
|  | Experience* | 1 |
|  | Humanities Electives* | 3 |
|  | Natural Sciences and/or | 8 |
| MAT........ | M athematics Electives |  |
|  | Social Science Elective* | 3 |
|  |  | -15 |
| Fourth Semester |  |  |
|  | Humanities Electives* | 6 |
|  | Natural Sciences |  |
|  | and/or M athematics Electives | 10-12 |
| MAT... |  |  |
|  |  | -16-1] |
| * General Education Elective - see page 58. <br> $\dagger$ M AT280 Calculus I is required for all students in the |  |  |
|  |  |  |
| Note: It is recommended that students select their advanced courses in the areas of Biology, Chemistry, Computer Science, M athematics, or Physics. |  |  |

## BIOLOGY OPTION <br> CODE AS.NSM.BIO

## First Semester

BIO101 General Biology I 4

WEX101 Dynamics of Health and Fitness 2
MAT180 Precalculus 4
SPE111 Speech Communication 3
WRT101 English Composition I 3
$-\overline{16}$
Second Semester
BIO203 General Biology II 4
MAT280 Calculus I 4
W RT201 English Composition II 3
... ... Humanities Elective* 3
... ... Social Science Elective* 3
$-17$
Third Semester
BIO202 Embryology 4
WEX... $\begin{gathered}\text { Dynamics of Health \& Fitness } \\ \text { Experience* }\end{gathered}$
... ... Humanities Electives* 3
... ... Natural Sciences Elective 3-4
... ... Social Science Elective* 3

Fourth Semester
BIO201 Comp Anatomy 4
..... Humanities Electives*
... ... Natural Sciences Elective $\dagger$
... ... Natural Sciences
or
3-4
MAT... M athematics Elective
† CHM 140/CHM 141 General Chemistry I and CHM 240/241 General Chemistry II are recommended.

ASSOCIATE IN SCIENCE (AS) DEGREEIN SCIENCES \& MATHEMATICS

| CHEM ISTRY OPTION CODE AS,NSM.CHEM |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| CHM 140 | General Chemistry I | 3 |
| CHM 141 | Gen Chemistry I Lab | 1 |
| W EX101 | Dynamics of Health and Fitness | 2 |
| M AT280 | Calculus I | 4 |
| SPE111 | Speech Communication | 3 |
| W RT101 | English Composition I | 3 |
|  |  | 16 |
| Sec ond Semester |  |  |
| CHM 240 | General Chemistry II | 3 |
| CHM 241 | Gen Chemistry II-Lab | 1 |
| M AT281 | Calculus II | 4 |
| W RT201 | English Composition II | 3 |
| ... ... | Humanities Elective* | 3 |
| ... | Social Science Elective* | 3 |
|  |  | 17 |
| Third Semester |  |  |
| CHM 260 | Organic Chemistry I | 4 |
| WEX... | Dynamics of Health \& Fitness |  |
|  | Experience* | 1 |
| M AT282 | Calculus III | 4 |
| ... ... | Humanities Elective* | 3 |
| ... ... | Natural Sciences Elective $\dagger$ | 4 |
|  |  | $1 \overline{16}$ |
| Fourth Semester |  |  |
| CHM 262 | Organic Chemistry II | 4 |
| ... ... | Humanities Electives* | 6 |
| ... ... | Natural Sciences Elective $\dagger$ | 4 |
| ... ... | Social Science Elective* | 3 |
|  |  | 17 |

* General Education Elective - see page 58.
† PHY186 General Physics I and PHY 286 General
Physics II are highly recommended.


## COM PUTER SCIENCE OPTION CODE AS.NSM.COMP.SCl

## First Semester

M AT165 C++Programming I* 3
MAT280 Calculus I ..... 4
SPE111 Speech Communication 3W RT101 English Composition I 3
... ... Humanities Elective** 3
-16
Second Semester

| M AT265 | C++ Programming II | 3 |
| :--- | :--- | :--- |
| M AT271 | Computer Organization \& | 3 |


| M AT281 | Calculus II |  |
| :--- | :--- | :--- |
|  | or | 4 |


| M AT288 | Discrete M athematics for Computer <br> Science |
| :--- | :--- |
| WRT201 | English Composition II |

WEX101 Dynamics of Health and Fitness 2
... ... Humanities Elective** ..... 3
Third Semester
M AT277 Data Structures \& Algorithms ..... 3
MAT... Computer Science/M athematics Elective*** ..... 3-4
... ... Natural Science Elective $\dagger$ ..... 4
... ... Humanities Elective** ..... 3
... ... Social Science Elective** ..... 3
16-17

Fourth Semester

| M AT... | Computer Science/M athematics |  |
| :---: | :---: | :---: |
|  | Electives*** | 4-6 |
| ..... | Natural Science Elective $\dagger$ | 4 |
| ..... | Humanities Elective** | 3 |
|  | Social Science Elective** | 3 |
| WEX... | Dynamics of Health \& Fitness |  |
|  | Experience** | 1 |

[^8]ASSOCIATE IN SCIENCE (AS) DEGREEIN SCIENCES \& MATHEMATICS

| MATHEMATICS OPTION CODE AS.NSM.MATH |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| W EX101 | Dynamics of Health and Fitness | 2 |
| M AT280 | Calculus I | 4 |
| WRT101 | English Composition I | 3 |
|  | Humanities Elective* | 3 |
| MAT... | M athematics Elective |  |
|  | or |  |
| ... | Computer Science | 3-4 |
|  |  |  |
| ... ... | Natural Sciences Elective** |  |
|  |  | $\overline{15-1} \overline{1}$ |
| Second Semester |  |  |
| M AT281 | Calculus II | 4 |
| WRT201 | English Composition II | 3 |
|  | Humanities Elective* | 3 |
| MAT... | M athematics Elective |  |
|  |  | 3-4 |
| ... .. | Computer Sciences Elective** |  |
| ... ... | Social Science Elective* | 3 |
|  |  | 16-17 |
| Third Semester |  |  |
| WEX... | Dynamics of Health \& Fitness |  |
|  | Experience* | 1 |
| $\begin{aligned} & \text { M AT282 } \\ & \text { M AT286 } \end{aligned}$ | Calculus III | 4 |
|  | Linear Algebra | 4 |
|  | Humanities Elective* | 3 |
| M AT... | $M$ athematics |  |
|  | or |  |
| ... ... | or | 3-4 |
|  | Natural Sciences Elective** |  |
| ... ... |  | - $15-1 / \overline{6}$ |
| Fourth Semester |  |  |
| M AT283 | Differential Equations | 4 |
| SPE111 | Speech Communication | 3 |
|  | Humanities Elective* | 3 |
| MAT... | M athematics |  |
|  | Or ${ }_{\text {Computer Science }}$ | 3-4 |
|  | or |  |
|  | Natural Sciences Elective** |  |
| ... ... | Social Science Elective* | 3 |
|  |  | -16-17 |

## PHYSICS OPTION <br> CODE AS.NSM .PHYSC

## First Semester

M AT280 Calculus I 4
PHY190 Physics I ..... 4
SPE111 Speech Communication ..... 3
W RT101 English Composition I ..... 3
... ... Social Science Elective* ..... 3
$-17$
Second Semester

| M AT281 | Calculus II | 4 |
| :--- | :--- | :--- |
| PHY290 | Physics II | 4 |
| W RT201 | English Composition II | 3 |
| ... ... | Humanities Electives* | 6 |

## Third Semester

W EX101 Dynamics of Health \& Fitness 2
MAT282 Calculus III 4
PHY291 Physics III 4
... ... Humanities Elective* 3
... ... Natural Sciences Elective** 4$-17$

## Fourth Semester

WEX... $\quad$| Dynamics of |
| :---: |
| Experience* |

PHY294 Engineering M ech 4
... ... Humanities Elective* 3
....... Natural Sciences Elective** 4
... ... Social Science Elective* 3
$-\overline{15}$

[^9][^10]PRE-CHIROPRACTIC OPTION
CODE AS.NSM.CHIR
First Semester

| WEX101 | Dynamics of Health \& Fitness | 2 |
| :--- | :--- | :--- |
| M AT180 | Precalculus | 4 |
| BIO101 | General Biology I | 4 |
| SPE111 | Speech Communication | 3 |
| WRT101 | English Composition I | 3 |

$\begin{array}{ll}\text { Second Semester } \\ \text { MAT280 } & \text { Calculus I }\end{array}$
W RT201 English Composition II 3
BIO203 General Biology II 4
..... Humanities Elective* 3
..... Social Science Elective* $\dagger$ 3 TT

## Third Semester

$\begin{array}{ll}\text { WEX... } & \begin{array}{l}\text { Dynamics of Health \& Fitness } \\ \text { Experience* }\end{array} \\ & 1\end{array}$
.... Humanities Elective* 3
CHM 140 General Chemistry I 3
CHM 141 General Chemistry I Lab 1
PHY186 General Physics I 4
... ... Social Science Elective* $\dagger$ 3
15
Fourth Semester

|  | Humanities Electives* | 6 |
| :--- | :--- | :--- |
| CHM 240 | General Chemistry II | 3 |
| CHM 241 | General Chemistry II Lab | 1 |
| PHY286 | General Physics II | 4 |
| BIO103 | The Human Body | 4 |

## $-18$

* General Education Elective - see page 58.
$\dagger$ Students must take PSY101 General Psychology to fulfill requirements of New York Chiropractic College
Additional requirements for admission to New York Chiropractic College: CHM 260, CHM 262, Science Elective (BIO104 M icrobiology is recommended), and two free electives (W ellness \& Exercise Science is recommended).


## ASSOCIATE IN SCIENCE (AS) DEGREE OPTION IN ENGINEERING SCIENCE

To earn the AS degree with an option in Engineering Science, a student must meet the following curriculum requirements:

| Area of Study | Credits | Courses |
| :---: | :---: | :---: |
| Communications | 6 | WRT101 English Composition I (3 cr.) W RT201 English Composition II (3 cr.) |
| Humanities | 6 | Two general education courses ( 6 cr .) to be selected from the following fields: <br> Fine Arts (Art [ART], M usic[M US], Theatre Arts [THR]) World Languages and Cultures (LAN) <br> History (HIS) <br> Literature (LIT) <br> Philosophy and Religion (PHR) |
| Social Sciences | 6 | Two general education courses ( 6 cr .) to be selected from the following fields: <br> Economics (ECO) <br> Geography (GEO) <br> Political Science (POL) <br> Psychology (PSY) <br> Sociology (SOC) and Anthropology (ANT) |
| $M$ athematics | 8 | Two general education courses (8 cr.) in M athematics/Computer Science (MAT)* |
| Natural Sciences | 8 | Two general education courses ( 8 cr .) in one of the following fields: <br> Biology (BIO) <br> Chemistry (CHM) <br> Physics (PHY) |
| Wellness and Exercise Science | 3 | WEX101 Dynamics of Health and Fitness (2 cr.) W EX... $\quad$ Dynamics of Health and Fitness Experience ( 1 cr .) ${ }^{* *}$ |
| Restricted Courses | 29 |  |
| Diversity Requirement: | In com gender | BCC General Education Program, a student must take and pass at least one course non-w estern history or thought, and/or cultural diversity.*** |

[^11]ENGINEERING SCIENCE OPTION
CODE AS.ENGIN.SCI

## First Semester

| CHM 140 | General Chemistry I | 3 |
| :--- | :--- | :--- |
| CHM 141 | Gen Chemistry Laboratory I | 1 |
| DFT107 | Drafting I | 2 |
| M AT280 | Calculus I | 4 |
| PHY190 | Physics I | 4 |
| WRT101 | English Composition I | 3 |

$$
-17
$$

Second Semester
CHM 240 General Chemistry II 3

CHM 241 Gen Chemistry Laboratory II 1
MAT272 FORTRAN Programming 3
M AT281 Calculus II 4
PHY290 Physics II 4

W RT201 English Composition II 3
$-18$
Third Semester
M AT282 Calculus III

| PHY291 | Physics III | 4 |
| :--- | :--- | :--- |
| $\ldots . .$. | Humanities Elective* $\dagger$ | 3 |

... ... Humanities Elective* $\dagger$ 3

WEX101 $\quad$ Dynamics of Health and Fitness 2
$-\overline{16}$

| Fourth Semester |  |  |
| :--- | :--- | :--- |
| M AT283 | Differential Equations |  |
| PHY294 | Engineering M echanics | 4 |
| $\ldots \ldots$ | Humanities Elective* $\dagger$ | 4 |
| $\ldots \ldots$ | Social Science Elective* $\ddagger$ | 3 |
| WEX... | Dynamics of Health \& Fitness | 3 |
|  | Experience* |  |
|  |  | 1 |

* General Education Elective-see page 58.
$\dagger$ HIS101 History of W estern Civilization to the Reformation and HIS102 History of W estern Civilization since the Reformation are recommended.
$\ddagger$ ECO101 M acro Economics and ECO201 Micro Economics are recommended.


## ASSOCIATE IN SCIENCE (AS) DEGREE OPTIONS IN PROFESSIONAL STUDIES

To earn the AS degree with an option in Professional Studies, a student must meet the following curriculum requirements:


## GENERAL CURRICULUM <br> CODE AS.PS.GEN

It is recommended that the student fulfill the preceding require ments in accordance with the following semester-by-semester sequence.

## First Semester

| W EX101 | Dynamics of Health and Fitness | 2 |
| :--- | :--- | :--- |
| MAT... | Restricted M ath Elective* | 3 |
| SPE111 | Speech Communication | 3 |
| WRT101 | English Composition I | 3 |
| … ... | Social Science Elective** | 3 |
| ..... | Elective in Professional | 3 |
|  | Concentration | 3 |$-17$

## Second Semester

| W RT201 | English Composition II <br> W EX... <br>  | 3 |
| :--- | :--- | :--- |
| M AT... | Fitness Experience* |  |
| M athematics Elective** | 1 |  |
| $\ldots . . .$. | Humanities Electives** | 3 |
| $\ldots . .$. | Elective in Professional | 6 |
|  | Concentration | 3 |

## Third Semester

| $\ldots . . .$. | Natural Sciences Electiv*** | 4 |
| :--- | :--- | :--- |
| $\ldots . .$. | Social Science Elective** | 3 |
| $\ldots .$. | Humanities Elective** | 3 |
| $\ldots . .$. | Electives in Professional | 6 |

## Fourth Semester

| $\ldots .$. | Natural Sciences Elective** | 4 |
| :--- | :--- | :---: |
| $\ldots .$. | Humanities Electives** | 6 |
| $\ldots .$. | Electives in Professional |  |
|  | Concentration | $6-7$ |

* Students should select from M AT150, M AT180, M AT223, M AT280
** General Education Elective - see page 58

BROADCASTING OPTION
CODE AS.PS.BRCAST

## First Semester

| W EX101 | Dynamics of Health and Fitness | 2 |
| :--- | :--- | :--- |
| M AT... | Restricted M ath Elective* | 3 |
| SPE111 | Speech Communication | 3 |
| WRT101 | English Composition I | 3 |
| COM 101 | Mass Media Communication | 3 |
| ...... | Social Science Elective** | 3 |

## Sec ond Semester

WRT201 English Composition II 3
MAT... Mathematics Elective** 3
COM 106 TV Production I 3
COM 105 Radio Production 3
... ... Humanities Electives** ${ }^{*}$

Third Semester
COM 207 TV Production II 3

| COM 205 | Advanced Radio Production |  |
| :--- | :--- | :--- |
| COM 208 | or | Directing for Television |

COM 211 Video Post Production
WEX... Dynamics of Health \& Fitness Experience** 1
... ... Humanities Elective** 3
... ... Natural Sciences Elective** 4
... ... Social Science Elective** 3

Fourth Semester

| COM 461 | Co-Op W ork Experience (M edia) | 1 |
| :--- | :--- | :---: |
| $\ldots . .$. | Humanities Electives** | 6 |
| $\ldots .$. | Natural Sciences Elective $* *$ | 4 |
| $\ldots .$. | Social Science Elective |  |
|  |  | 3 |
|  |  | $-\overline{1} \overline{4}^{*}$ |

[^12]
## B USINESS ADMINISTRATION OPTION <br> CODE AS.PS.BUS.ADM

## First Semester

BUS101 Introduction to Business 3
W EX101 Dynamics of Health and Fitness 2
MAT... Restricted M ath Elective* 3
SPE111 Speech Communication 3
WRT101 English Composition I 3
ACC110 Financial Accounting 3

## Second Semester

ACC210 M anagerial Accounting 3
MAT... M athematics Elective** 3
W RT201 English Composition II 3
... ... Business Administration Elective 3
... ... Humanities Electives** 6

## Third Semester

| WEX... |  |
| :---: | :---: |
|  | Fitness Experience** |
| ... ... | Business Administration Elective |
|  | Humanities Electives** |
|  | Natural Sciences Elective** |
| ... | Social Science Elective** |

## Fourth Semester

| $\ldots . .$. | Free Electives | 3 |
| :--- | :--- | :--- |
| $\ldots .$. | Humanities Elective** | 3 |
| $\ldots .$. | Natural Sciences Electives** | 4 |
| $\ldots .$. | Social Science Elective** | 3 |

BUSINESS ADMINISTRATION-ACCOUNTING OPTION CODE AS.PS.BUS.ACCT

First Semester
WEX101 Dynamics of Health \& Fitness 2
SPE111 Speech Communication 3
M AT... Restricted M ath Elective* 3
WRT101 English Composition I 3
BUS101 Introduction to Business 3
... ... Humanities Elective** 3
$\overline{1} \overline{7}$

## Second Semester

ACC110 Financial Accounting 3
W RT201 English Composition II 3
... ... Natural Science Elective** 4
... ... Humanities Elective** 3
... ... Social Science Elective** 3
$\overline{1} \overline{6}$
Third Semester
ACC210 M anagerial Accounting 3
... ... Natural Science Elective** 4
... ... Humanities Elective** 3
... ... Social Science Elective** $\dagger$ 3
MAT... M athematics Elective** 3
$\overline{1} \overline{6}$
Fourth Semester
ACC202 Intermediate Accounting I 3
WEX... Dynamics of Health \& Fitness Experience** 1
... ... Humanities Electives** 6
BUS... Business Elective 3
... ... Free Elective 3

* Students should select from M AT150, M AT180, M AT223, and M AT280
** General Education Elective - see page 58
$\dagger$ ECO101 is recommended


BUSINESS ADMINISTRATION-INTERNATIONAL TRADE OPTION
CODE AS.PS.BUS.INTL

| First Semester |  |  |
| :--- | :--- | :--- |
| BUS101 | Introduction to Business | 3 |
| W EX101 | Dynamics of Health \& Fitness | 2 |
| M AT... | Restricted M ath Elective* | 3 |
| SPE111 | Speech Communication | 3 |
| WRT101 | English Composition I | 3 |
| ACC110 | Financial Accounting | 3 |


| ACC210 | M anagerial Accounting | 3 |
| :--- | :--- | :--- |
| MAT... | M athematics Elective** | 3 |
| WRT201 | English Composition II | 3 |
| BUS202 | International M arketing | 3 |
| ... ... | Humanities Electives** | 6 |

Third Semester
WEX... Dynamics of Health \&
Fitness Experience** 1
... ... Business Administration Elective*** 3
... ... Humanities Electives** 6
... ... Natural Sciences Elective** 4
... ... Social Science Elective** 3
-17

## Fourth Semester

... ... Free Elective $\dagger$ 3
... ... Humanities Elective** 3
... ... Natural Sciences Elective** 4
... ... Social Science Elective** 3

* Students should select from M AT150, M AT180, M AT223, M AT280
**General Education Elective - see page 58
***Students should select BUS262 or BUS263 or BUS264.
$\dagger$ Recommended - one of the following: BUS262, BUS263, BUS264.

BUSINESS ADMINISTRATION-M ANAGEM ENT OPTION CODE AS.PS.BUS.M GMT

## First Semester

| BUS101 | Introduction to Business | 3 |
| :--- | :--- | :---: |
| W EX101 | Dynamics of Health \& Fitness | 2 |
| M AT... | Restricted M ath Elective* | 3 |
| SPE111 | Speech Communication | 3 |
| W RT101 | English Composition I | 3 |
| ACC110 | Financial Accounting | 3 |
|  |  | -17 |

## Sec ond Semester

| ACC210 | Managerial Accounting | 3 |
| :--- | :--- | :---: |
| MAT... | Mathematics Elective** | 3 |
| WRT201 | English Composition II | 3 |
| BUS207 | Principles of Business M anagement | 3 |
| ...... | Humanities Electives** | 6 |
|  |  | -18 |

## Third Semester

WEX... Dynamics of Health \& Fitness Experience** 1
... ... Business Administration Elective*** 3
... ... Humanities Electives** 6
... ... Natural Sciences Elective** 4
... ... Social Science Elective** 3

- -17

Fourth Semester

| $\ldots \ldots$ | Free Electives | 3 |
| :--- | :--- | :---: |
| $\ldots \ldots$ | Humanities Elective** | 3 |
| $\ldots \ldots$ | Natural Sciences Elective** | 4 |
| $\ldots \ldots$ | Social Science Elective** | 3 |
|  |  | -13 |

[^13]
## BUSINESS ADMINISTRATION-MARKETING OPTION CODE AS.PS.BUS.MKTG

| First Semester |  |  |
| :--- | :--- | :--- |
| BUS101 | Introduction to Business | 3 |
| WEX101 | Dynamics of Health and Fitness | 2 |
| MAT... | Restricted M ath Elective* | 3 |
| SPE111 | Speech Communication | 3 |
| WRT101 | English Composition I | 3 |
| ACC110 | Financial Accounting | 3 |

## Second Semester

| ACC210 | M anagerial Accounting | 3 |
| :--- | :--- | :--- |
| M AT... | M athematics Elective** | 3 |
| WRT201 | English Composition II | 3 |
| BUS201 | Marketing Principles | 3 |
|  | Humanities Electives** | 6 |

## Third Semester

| WEX... |  |
| :---: | :---: |
|  | Fitness Experience** |
|  | Business Administration |
|  | Elective*** |
|  | Humanities Electives** |
|  | Natural Sciences Elective** |1

... ...

## EDUCATION OPTION <br> CODE AS.PS.EDUC

| FirstSemester |  |  |
| :--- | :--- | ---: |
| W EX101 | Dynamics of Health \& Fitness |  |
| M AT... | Restricted Math Elective* | 3 |
| SPE111 | Speech Communication | 3 |
| WRT101 | English Composition I | 3 |
| EDU101 | Introduction to Education | 3 |
| ... ... | Social Science Elective** | 3 |
|  |  | -17 |

## Second Semester

WRT201 English Compostion II 3
SOC102 Introduction to Human Services 3
MAT... M athematics Elective** 3
... ... Humanities Electives** 6

Third Semester
EDU103 Principles \& Practices in Ed 3
PSY103 Educational Psych 3

WEX... |  |
| :--- |
| Fitness Experience** |

... ... Humanities Elective** 3
... ... Natural Sciences Elective** 4
... ... Social Science Elective** $\dagger$ 3

Fourth Semester

| SOC103 | Sociology of Family | 3 |
| :--- | :--- | :---: |
| $\ldots . .$. | Free Electives | 3 |
| $\ldots .$. | Humanities Electives** | 6 |
| $\ldots .$. | Natural Sciences Elective** | 4 |
|  |  | $-\overline{16}$ |

[^14]
## AS S OCIATE IN S CIENCE (AS) DEGREEIN PROFESSIONALSTUDIES

EXERCISE SCIENCE OPTION
CODE AS.PS.EXER

## First Semester

WRT101 English Composition I 3
SPE111 Speech Communication 3
MAT150 Elementary Statistics 3
WEX159 CPR and First Aid 3
WEX164 Exercise Science 3
WEX101 Dynamics of Health \& Fitness

|  |  | -17 |
| :---: | :---: | :---: |
| Second Semester |  |  |
| M AT... | M athematics Elective* | 3 |
| W RT201 | English Composition II | 3 |
| ... ... | Humanities Electives* | 6 |
| WEX182 | Fitness M easurement | 3 |
| W EX184 | Sports M edicine I | 3 |

Third Semester

| $\ldots \ldots .$. | Social Science Elective* | 3 |
| :--- | :--- | :--- |
| $\ldots \ldots$ | Natural Sciences Elective* | 4 |
| $\ldots \ldots$ | Humanities Electives* | 6 |
| WEX106 | Nutrition for Exercise | 3 |
| WEX... | Dynamics of Health \& |  |
|  | Fitness Experience* | 1 |

Fourth Semester

| $\ldots . .$. | Social Science Elective* | 3 |
| :--- | :--- | :--- |
| $\ldots .$. | Natural Sciences Elective* | 4 |
| $\ldots \ldots$ | Humanities Electives* | 3 |
| $\ldots$ WEX183 | Programs and Principles of |  |
|  | Conditioning | 3 |

$-\overline{1} \overline{3}$

## J OURNALISM OPTION <br> CODE AS.PS.J OUR

## First Semester

COM 101 Mass Media 3

W EX101 Dynamics of Health and Fitness 2
MAT... Restricted Math Elective* 3
SPE111 Speech Communication 3
W RT101 English Composition 3
...... Social Science Elective** 3

## Second Semester

COM 206 Writing for the M ass M edia 3

W RT201 English Composition II 3
$\begin{array}{ll}\text { WEX... } & \text { Dynamics of Health \& } \\ & \text { Fitness Experience** }\end{array}$
M AT... Mathematics Elective** 3
...... Humanities Electives** 6
$-1 \overline{1}$
Third Semester

| COM 201 | Intro to J ournalism | 3 |
| :--- | :--- | :--- |
| INF141 | Web Publishing with HTM L |  |
|  | or |  |
| INF162 | Intro to Internet | 1 |
| .... | Humanities Elective** $\dagger$ | 3 |
| ..... | Natural Sciences Elective** | 4 |
| .... | Social Science Elective*** | 3 |

## Fourth Semester

| COM 210 | Public Relations | 3 |
| :--- | :--- | :--- |
| COM 461 | Co-Op W ork Exp (M edia) | 1 |
| ..... | Humanities Electives** | 6 |
| .... | Natural Sciences Elective** | 4 |
| .... | Free Elective** | 3 |

[^15]* Students should select from M AT150, M AT180, M AT223, M AT280
** General Education Elective - see page 58
*** POL101 American Government or POL104 State and Local
Government is recommended
$\dagger$ PHR102 Ethics is recommended


## CAREER PROGRAMS

## ASSOCIATE IN APPLIED SCIENCE (AAS) DEGREES

Associate in Applied Science (AAS) degree programs are designed to prepare students for employment in their chosen fields of endeavor. Such programs are not designed to prepare students for transfer into bachelor's degree programs in four-year colleges and universities

Career programs leading to the AAS degree are organized according to the following categories: Allied Health, Business Administration, Art, Business Technologies, Human Services, Industrial and Design Technologies, Netw orking Administration, Nursing, Science Technologies and Web Development and M anagement.

To receive the Associate in Applied Science (AAS) degree, a student must earn a minimum of 64 degree credits and complete all courses and specific requirements listed within the student's chosen curriculum. Each AAS curriculum must contain the following general education requirements:

| Area of Study | Credits | Course |
| :---: | :---: | :---: |
| Communications | 6 | W RT101 English Composition I (3 cr.) W RT201 English Composition II (3 cr.) |
| Humanities | 6 | Two general education courses ( 6 cr .) to be selected from the following fields: <br> Fine Arts (Art [ART], M usic [M US], Theatre Arts [THR]) <br> World Languages and Cultures (LAN) <br> History (HIS) <br> Literature (LIT) <br> Philosophy or Religion (PHR) |
| Social Sciences | 3 | One general education course ( 3 cr .) to be selected from the following fields: <br> Economics (ECO) <br> Geography (GEO) <br> Political Science (POL) <br> Psychology (PSY) <br> Sociology (SOC) and Anthropology (ANT) |
| Natural Sciences or Mathematics | 3-4 | One general education course ( $3-4 \mathrm{cr}$.) to be selected from the following fields: <br> M athematics/Computer Science (MAT) <br> Biology (BIO) <br> Chemistry (CHM ) <br> Physics (PHY) or Earth Science (ESC) |
| Wellness and Exercise Science | 3 | W EX101 Dynamics of Health and Fitness (2 cr.) WEX... Dynamics of Health and Fitness Experience (1cr.) * |
| Restricted Courses M inimum of 42-43 cr.** |  |  |
| Diversity Course R | ndation: | ded that, in completing the BCC General Education Program, a student take st one course in gender studies, non-w estern history or thought, and/or y.*** |

[^16]CAREER PROGRAMS
ASSOCIATE IN APPLIED SCIENCE (AAS) PROGRAMS IN ALLIED HEALTH

| DENTAL HYGIENE CODE AAS.AH.DENTL |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| BIO104 | M icrobiology | 4 |
| BIO109 | Anatomy \& Physiology I | 4 |
| DHY101 | Oral Hygiene I | 3 |
| DHY108 | Dental \& Oral Anatomy \& |  |
|  | Physiology | 2 |
| DHY109 | Oral Embryology \& |  |
|  | Histology | 2 |
| W RT101 | English Composition I | 3 |
|  |  | 18 |
| Second Semester |  |  |
| $\begin{aligned} & \text { BIO209 } \\ & \text { W EX101 } \end{aligned}$ | A natomy \& Physiology II | 4 |
|  | Dynamics of Health \& |  |
|  | Fitness | 2 |
| DHY201 | Oral Hygiene II |  |
| DHY205 | Dental Radiology |  |
| DHY207 | General \& Oral Pathology | , |
| W RT201 | English Composition II | 3 |
|  |  | 18 |
| Summer Session I and II |  |  |
| CHM 110 | Basic Biochemistry | 4 |
|  |  | $4^{-}$ |
| Summer Session II |  |  |
| DHY200 | Pharmacology for Dental Hygiene | 2 |
|  |  | $2^{-}$ |
| Third Semester |  |  |
| DHY202 | Oral Hygiene III | 4 |
| DHY204 | Dental M aterials | 3 |
| DHY206 | Public Health \& Community |  |
|  | Dentistry | 3 |
| DHY209 | Periodontology I | 1 |
| WEX... | Dynamics of Health \& |  |
|  | Fitness Experience* | 1 |
|  |  | 12 |
| Fourth Semester |  |  |
| DHY219 | Periodontology II | 1 |
| DHY203 | Oral Hygiene IV | 4 |
| DHY214 | Nutrition in Dental Health | 2 |
| PSY101 | General Psychology | 3 |
| SOC101 | Sociology | 3 |
| SPE111 | Speech Communication | 3 |
| ..... | Humanities Elective* | 3 |

## CODE AAS.AH.DENTL

DHY207 General \& Oral Pathology 3
W RT201 English Composition II 3
$-18$PSY101 General Psychology3SPE111 Speech Communication3

## DIAGNOSTIC MEDICAL SONOGRAPHY CODE AAS.AH.DMS

## First Semester

BIO109 Anatomy \& Physiology I 4

WEX101 Dynamics of Health and Fitness 2
MOA140 Medical Terminology 3
DM S101 Ultrasound Physics I 3
DM S102 Clinical M edicine \& Patient Care 2
WRT101 English Composition I 3

Second Semester
BIO209 A natomy \& Physiology II 4
WEX... $\begin{aligned} & \text { Dynamics of Health \& } \\ & \text { Fitness Exp* }\end{aligned}$
DM S201 Ultrasound Physics II 3
DM S202 Cross Sectional Anatomy I 3
DM S204 Introduction to Medical Imaging 2
W RT201 English Composition II 3
$\overline{1} \overline{6}$
Summer Session I
DM S208 Clinical Practicum I 1
(40 hours per week for 6 weeks)
Summer Session II
..... Humanities Elective* 3

Third Semester
DM S203 Cross Sectional Anatomy II 3
DM S205 OB/GYN Sonography 3
DM S206 Sonographic Interp and Tech I 2
DM S209 Clinical Practicum II 1
DMS212 Abdominal Sonography I 3
..... Humanities Elective* 3
$\overline{1} \overline{5}$

Fourth Semester
DM S207 Sonographic Interp and Tech II 2
DM S210 Clinical Practicum III 1

DM S213 Abdominal Sonography II 3
DM S214 Echocardiography 3
DM S215 Ultrasound Pathology 1
..... Social Science Elective* 3
$\overline{1} \overline{3}$

## Summer Session

| DM S216 | Clinical Practicum IV | 2 |
| :--- | :--- | ---: |
|  | (40 hours per week for 12 weeks) |  |
|  |  | $\overline{2}$ |

[^17]
## AS SOCIATE IN APPLIED SCIENCE (AAS)IN ALLIED HEALTH

## HEALTH SCIENCE <br> CODE AAS.H.HLTH.SCI

This curriculum is designed for graduates of one-year, post-secondary programs who hold current certification or licensure in an Allied Health discipline, such as dental assisting, dietetics, diagnostic medical sonography, licensed practical nursing, medical office assisting, radiography, respiratory technology, and surgical technology. Thirty credits for certification/licensure will be granted after completion of the degree requirements resulting in 66 credits and an AAS degree in Health Science. It is important to note that this curriculum will not confer eligibility for advanced certification nor advanced licensure within the Allied Health disciplines.

## First Semester

|  |  |  |
| :---: | :---: | :---: |
| W RT101 | English Composition I | 3 |
| BIO109 | A natomy \& Physiology I | 4 |
|  | Humanities Elective* | 3 |
| M OA140 | M edical Terminology | 3 |
| W EX101 | Dynamic of Health \& Fitness | 2 |
| SOC101 | Sociology | 3 |
|  |  | $\overline{1} \overline{8}$ |
| Second Semester |  |  |
| W RT201 | English Composition II | 3 |
| BIO209 | Anatomy \& Physiology II | 4 |
|  | Humanities Elective* | 3 |
| CHM 100 | Introduction to Chemistry** | 4 |
| WEX... | Dynamics of Health \& |  |
|  | Fitness Experience* | 1 |
| PSY101 | General Psychology | 3 |

[^18]
## MEDICAL LAB ORATORY TECHNOLOGY <br> \section*{CODE AAS.AH.MLT}

First Semester

| CHM 100 | Introduction to Chemistry* | 4 |
| :--- | :--- | :---: |
| W EX101 | Dynamics of Health \& Fitness | 2 |
| M AT... | M athematics Elective ** | $3-4$ |
| M LT160 | M edical Laboratory |  |
|  | Techniques I | 5 |
| WRT101 | English Composition I | 3 |

Second Semester
BIO103 Human Structure \& Function
CHM 140 General Chemistry I 3
CHM 141 General Chemistry I Laboratory 1
$\begin{array}{lll}\text { WEX... } & \text { Dynamics of Health \& } \\ & \text { Fitness Experience*** }\end{array}$
$\begin{array}{ll}\text { MLT260 } & \text { Medical Laboratory } \\ & \text { Techniques II }\end{array}$
W RT201 English Composition II 3
17-1 $\overline{1}$

## Summer Session I

| M LT263 | M edical Laboratory Externship I <br> ( 6 weeks @ 40 hrs/wk $=240$ hrs) | 1 |
| :--- | :--- | :---: |
| Summer |  |  |


| $\ldots . .$. | Humanities Elective*** | 3 |
| :--- | :--- | :--- |
| $\ldots . .$. | Social Science Elective*** | 3 |

$-\overline{6}-$

Third Semester
CHM 240 General Chemistry II 3

CHM 241 General Chemistry II Laboratory 1
M LT201 Clinical Microbiology I 4
M LT261 Medical Laboratory Techniques III 5
MLT264 Medical Laboratory Externship II 1 (15 weeks @ 16 hrs/wk = 240 hrs )

Fourth Semester

| M LT202 | Clinical M icrobiology II | 4 |
| :--- | :--- | :--- |
| M LT262 | Medical Laboratory Techniques IV | 5 |
| M LT266 | M edical Laboratory Externship III | 1 |
|  | (15 weeks @ 16 hrs/wk $=240$ hrs) |  |
| ... ... | Humanities Elective*** | 3 |

[^19]ASSOCIATE IN APPLIED SCIENCE (AAS) IN ALLIED HEALTH

## M EDICAL OFFICE ASSISTANT <br> CODE AAS.AH.MOA

## First Semester

| BIO109 | Anatomy \& Physiology I | 4 |
| :--- | :--- | :--- |
| WEX101 |  <br> Fitness | 2 |

MOA 140 Medical Terminology 3

M OA141 Introduction to M edical Assisting 3
OFF101 Keyboarding I 3
WRT101 English Composition I 3

## Second Semester

| BIO209 | Anatomy \& Physiology II <br> W EX... |  |
| :--- | :--- | :--- |
| M OA240 | Fitness Experience* <br> Clinical Office Practice | 1 |
| OFF209 | WordPerfect-Comprehensive <br> or | 4 |
| OFF240 | Microsoft W ord for W indow s |  |
|  | Comprehensive |  |
| W RT201 | English Composition II |  |
| ... ... | Humanities Elective* | 3 |
|  |  | 3 |

## Third Semester

W EX159 Cardio-Pulm Res \& Emer First Aid

M OA 243 Clinical Externship I
(8-12 hours per week) 1
$\begin{array}{lll}\text { OFF211 } & \text { Medical Assistant Administrative } \\ & \text { Procedures I }\end{array}$
... ... Humanities Elective* 3

## Fourth Semester

| M OA200 | Pharmacology for M edical Office |  |
| :--- | :--- | :--- |
|  | Assistants | 2 |
| ACC104 | M edical Accounting | 3 |
| M OA244 | Clinical Externship II |  |
|  | (8-12 hours per week) | 1 |


| M OA201 | Diagnostic and Procedural <br>  <br> Coding | 4 |
| :--- | :--- | :--- |

OFF212 Medical Assistant Administrative Procedures II3

PSY101 General Psychology

[^20]
## PHYSICAL THERAPIST ASSISTANT <br> CODE AAS.AH.PTA

## First Semester

BIO109 Anatomy and Physiology I 4
PHY185 Introduction to Physics 4
$\begin{array}{ll}\text { PTA101 } & \text { Introduction to Physical Therapist } \\ \text { Assistant }\end{array}$
PTA122 Physical Therapist Assistant 6
Procedures I 6
$-17$

## Second Semester

B10209 Anatomy \& Physiology II 4
WRT101 English Composition I 3
WEX101 Dynamics of Health \& Fitness 2
PTA201 Kinesiology 4
$\begin{array}{ll}\text { PTA222 } & \begin{array}{l}\text { Physical Therapist Assistant } \\ \\ \\ \text { Procedures II }\end{array}\end{array}$ -18

Summer Session
PTA245 Disease and Impairment 3
Third Semester
...... Humanities Elective* 3

| $W E X \ldots$ | $\begin{array}{l}\text { Dynamics of Health \& } \\ \text { Fitness Experience* }\end{array}$ |
| :--- | :--- |

W RT201 English Composition II 3
$\begin{array}{ll}\text { PTA223 } & \begin{array}{l}\text { Physical Therapist Assistant } \\ \\ \text { Procedures III }\end{array}\end{array}$
PTA231 Clinical Education I 2
(16 lab x 14 wks)
PTA241 Clinical Seminar I 1

## Fourth Semester

| $\ldots . .$. | Humanities Elective* | 3 |
| :--- | :--- | :--- |
| PSY101 | General Psychology | 3 |
| PTA224 | Physical Therapist Assistant |  |
|  | Procedures IV | 5 |
| PTA232 | Clinical Education II | 2 |
|  | (24 lab x 12 w ks) |  |
| PTA242 | Clinical Seminar II | 1 |


| Summer Session |  |  |
| :--- | :--- | :--- |
| PTA233 | Clinical Education III | 2 |
|  | (40 hrs/we 66 wks$)$ |  |
| PTA243 | Clinical Seminar III | 1 |

*General Education Elective - see page 58

[^21]ASSOCIATE IN APPLIED SCIENCE (AAS) IN ALLIED HEALTH

| RADIOGRAPHY CODE AAS.AH.RAD |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| BIO109 | Anatomy \& Physiology I | 4 |
| RAD180 | Introduction to Radiography | 2 |
| RAD181 | Radiography I | 5 |
| RAD182 | Radiography Clinical I | 1 |
| W RT101 | English Composition I | 3 |
|  |  | 15 |
| Second Semester |  |  |
| BIO209 | Anatomy \& Physiology II | 4 |
| RAD276 | Radiographic Health \& |  |
|  | Protection | 3 |
| RAD281 | Radiography II | 4 |
| RAD282 | Radiography Clinical II | 1 |
| W RT201 | English Composition II | 3 |
| Summer Session I |  |  |
| RAD283 | Intermediate Radiography Clinical, 12 weeks at 32 hours per week (384 hours) $=2$ credits. |  |
| Third Semester |  |  |
| W EX101 | Dynamics of Health \& |  |
|  | Fitness | 2 |
| RAD183 | Radiographic Pathology | 2 |
| RAD184 | Special Procedures \& Imaging M odulars I | 3 |
| RAD280 | Image Production \& Evaluation | 3 |
| RAD285 | Radiography III | 4 |
| RAD286 | Radiologic Clinical III | 1 |
| ..... | Humanities Elective* | 3 |
|  |  | 18 |
| Fourth Semester |  |  |
| W EX... | Dynamics of Health \& Fitness Experience* | 1 |
| RAD275 | Special Procedures \& Imaging Modulars II | 2 |
| RAD288 | Radiography IV | 4 |
| RAD289 | Radiologic Clinical IV | 2 |
| ..... | Humanities Elective* | 3 |
| ..... | Social Science Elective* | 3 |

## Summer Session II

RAD290 Senior Student Seminar, 15 weeks at 32 hours per week (480 hours) $=3$ credits.

* General Education Elective - see page 58

1,834 clinical hours are required for certification eligibility.

RESPIRATORY THERAPY CODE AAS.AH.RESP

## First Semester

| BIO109 | Anatomy \& Physiology I | 4 |
| :--- | :--- | :---: |
| M AT... | Mathematics Elective $\dagger \dagger$ | $3-4$ |
| RSP119 | Introduction to Respiratory Therapy | 4 |
| RSP121 | Clinical Externship I | 2 |
| RSP200 | Pharm for Respiratory Therapists | 2 |
| WRT101 | English Composition I | 3 |

Sec ond Semester
BIO209 Anatomy \& Physiology II 4
CHM 112 College Chemistry 4

RSP222 Cardiopulmonary Anatomy 4
RSP225 Clinical Externship II 2
$16 \mathrm{hrs} / \mathrm{wk}=224 \mathrm{hrs}$
Dynamics of Health \& Fitness

WEX101 Dynamics of Health \& Fitness 2
W RT201 English Composition II 3

SUM MER SESSION
(Based on 6 weeks)
RSP226 Clinical Externship III 2
$40 \mathrm{hrs} / \mathrm{wk}=240 \mathrm{hrs}$

Third Semester

| BIO104 | Microbiology | 4 |
| :--- | :--- | :--- |
| RSP240 | Diagnostic Monitoring | 4 |
|  | \& Patient Assessment |  |
| RSP229 | Mechanical Ventilation | 4 |
| RSP122 | Clinical M edic ine | 3 |
| RSP231 | Clinical Externship IV | 2 |
|  | 16 hrs/wk $=224$ hrs |  |
| WEX... | Dynamics of Health \& Fitness <br> Experience* | 1 |

Fourth Semester

| RSP227 | M anagement in Health Care | 2 |
| :--- | :--- | :---: |
| RSP241 | Pediatric/Neonatal Respiratory Care | 3 |
| RSP235 | Clinical Externship V | 2 |
|  | 16 hrs/wk $=224$ hrs |  |
| ..... | Humanities Electives* | 6 |
| ..... | Social Science Elective* | 3 |
|  |  | -15 |

[^22]
## VETERINARY TECHNOLOGY

CODE AAS.H.VET

## First Semester

| WRT101 | English Composition I | 3 |
| :--- | :--- | :--- |
| VET102 | Introduction to Veterinary Technology | 1 |
| VET103 | Veterinary M edical Technology | 1 |
| BIO115 | Vertebrate Anatomy \& Physiology I | 4 |
| CHM 112 | College Chemistry | 4 |
| WEX101 | Dynamics of Health \& Fitness | 2 |

## Second Semester

| WRT201 | English Composition II | 3 |
| :--- | :--- | :--- |
| VET110 | Nutrition \& Principles of Feeding | 2 |
| VET112 | Veterinary Pharmacology | 3 |
| BIO215 | Vertebrate Anatomy \& Physiology II | 4 |
| VET104 | Research Animal Technology | 3 |


| Summer I and II |  |
| :--- | :--- |
| BIO104 | Microbiology |
| ...... | Humanities Elective* |

## Third Semester

| VET203 | Veterinary Nursing I | 3 |
| :--- | :--- | :--- |
| VET207 | Diagnostic Imaging | 3 |
| VET205 | Clinical Laboratory Procedures I | 3 |
| VET218 | Farm Animal Nursing | 3 |
| ...... | Humanities Elective* | 3 |

## Fourth Semester

| VET214 | Veterinary Nursing II | 3 |
| :--- | :--- | :--- |
| VET219 | Surgical A ssistance \& Anesthesia | 3 |
| VET216 | Veterinary Office M anagement | 3 |
| VET217 | Clinical Laboratory Procedures II | 3 |
| $\ldots \ldots .$. | Social Science Elective* | 3 |
| WEX... |  <br>  <br>  <br> Fitness Experience* |  |

## Summer I and II <br> VET220 Veterinary Technology Externship 2

## CAREER PROGRAMS

ASSOCIATE IN APPLIED SCIENCE (AAS) PROGRAMS IN ART

## COMPUTER ANIMATION CODE AAS.IDT.ANIM

## First Semester

| ART122 | Two-Dimensional Design | 3 |
| :--- | :--- | :--- |
| ART126 | Introduction to Computer Graphics* | 3 |
| ART124 | Draw ing Fundamentals |  |
|  | or | 3 |
| ART123 | Life Drawing I |  |
| ART105 | History of Animation | 3 |
| WRT101 | English Composition I | 3 |
| WEX101 | Dynamics of Health \& Fitness | 2 |

## Second Semester

ART226 Letterform and Type 3
ART292 Computer 3D Animation I** 3
ART289 Computer 2D Illustration* 3
ART297 Computer Imaging* 3
W RT201 English Composition II 3
$\begin{array}{lll}\text { WEX... } & \begin{array}{l}\text { Dynamics of Health \& Fitness } \\ \\ \\ \text { Experience*** }\end{array}\end{array}$

|  |  | -16 |
| :--- | :--- | :---: |
| Third Semester | 16 |  |
| ART290 | Computer 2D Animation I** | 3 |
| ART293 | Computer 3D Animation II** | 3 |
| ART260 | Graphic Design I | 3 |
| $\ldots . . .$. | Humanities Elective*** | 3 |
| $\ldots . .$. | Natural Sciences*** |  |
| MAT... | or | Mathematics Elective*** |

## Fourth Semester

ART298 Presentation Graphics* 3
ART291 Computer 2D Animation II** 3
ART271 Portfolio Presentation 2
ART... Studio Art Elective $\ddagger$ or
ART462/463 Co-Op W ork Experience
...... Social Science Elective***3
...... Humanities Elective***

GRAPHIC DESIGN/COM PUTER GRAPHICS
CODE AAS.IDT.GRPH

## First Semester

ART122 Two-Dimensional Design 3
ART126 Introduction to Computer Graphics* 3
$\begin{array}{ll}\text { ART124 Drawing Fundamentals } \\ & \text { or }\end{array}$
$\begin{array}{lll}\text { ART123 } & \text { Life Drawing I } & \\ \text { WRT101 } & \text { English Composition I }\end{array}$
...... Humanities Elective** 3

- -15

Sec ond Semester
ART226 Letterform and Type 3
ART... Studio Art Elective*** 3
ART289 Computer 2D Illustration* 3
ART297 Computer Imaging* 3
WRT201 English Composition II 3
WEX101 Dynamics of Health \& Fitness 2
17
Third Semester
ART287 Computer Layout ${ }^{*}$ 3
ART260 Graphic Design I 3
ART... Studio Art Elective*** 3
..... Humanities Elective** $\dagger$ 3
Na.... Natural Sciences**
M AT... Mathematics Elective**
WEX... Dynamics of Health \& Fitness Experience** 1

## Fourth Semester

ART261 Graphic Design II 3
ART271 Portfolio Presentation 2
ART288 Computer LayoutII* 3
ART... Studio ArtElective*** 3
ART... Studio Art Elective***
or
2-3
ART462/463 Co-Op Work Experience
...... Social Science Elective** 3

* Course uses M acintosh computers
** General Education Elective - see page 58
*** "Studio Art" Electives do not include Art Appreciation and Art History. Recommended in 2nd semester: ART181 Photo I
Recommended in 3rd: ART259 Computer Graphics for the W eb Developer Recommended in 4th: ART290 and/or ART 292
$\dagger$ Recommended: ART101 Art Appreciation, ART102 Art History Through the Renaissance, ART103 Art History Since the Renaissance, or M US110 M usic, Art, and Drama


## CAREER PROGRAMS

## ASSOCIATE IN APPLIED SCIENCE (AAS) PROGRAMS IN BUSINESS ADMINISTRATION

## ACCOUNTING CODE AAS.BUS.ACCT

## First Semester

| ACC101 | Accounting I | 3 |
| :--- | :--- | :--- |
| BUS101 | Introduction to Business | 3 |
| WRT101 | English Composition I | 3 |
| ACC120 | Computerized Accounting | 3 |
| WEX101 | Dynamics of Health \& Fitness | 2 |
| INF... | Information Technology Elective* | 3 |

## Sec ond Semester

ACC201 Accounting II 3
$\begin{array}{ll}\text { WEX... } & \text { Dynamics of Health \& } \\ & \text { Fitness Experience** }\end{array}$
W RT201 English Composition II 3
...... Social Science Elective** ${ }^{* *} 3$
BUS233 Business Law I 3
... ... Humanities Elective** 3
$-\overline{16}$

## Third Semester

| ACC202 | Intermediate Accounting I | 3 |
| :--- | :--- | ---: |
| INF124 | M icrosoft Spreadsheet - Excel | 1 |
| BNF201 | Principles of Finance | 3 |
| SPE111 | Speech Communication | 3 |
| $\ldots . . .$. | Natural Sciences $* *$ |  |
| M AT... | or |  |
| M athematics Elective** | $3-4$ |  |
| BUS... | Business Elective $\ddagger$ | 3 |


| BUS... | Business Elective $\ddagger$ | 3 |
| :--- | :--- | :---: |
|  |  | 16-17 |
|  |  |  |
| Fourth Semester |  |  |
| ACC203 | Intermediate Accounting II |  |
|  | or | 3 |
| ACC107 | Federal Taxation |  |
| ACC204 | Cost Accounting I |  |
| $\ldots \ldots$. | Humanities Elective** | 3 |
| BUS... | Business Elective $\ddagger$ | 3 |
| ACC462 | Co-Op W ork Exp (Accounting) | 3 |
| INF228 | Advanced Excel | 2 |
|  |  | 1 |

* The student should choose from INF101 Introduction to Information Technology or IN F114 M icrosoft Office.
** General Education Elective - see page 58 $\dagger$ EC0101 M acro Economics is recommended.
$\ddagger$ Choose any BUS course.


## BANKING, CREDIT AND FINANCE CODE AAS.BUS.BANK

## First Semester

ACC101 Accounting I 3
BUS101 Introduction to Business 3
BUS103 Business Mathematics 3
BNF101 Principles of Bank Operations* 3
W EX101 Dynamics of Health \& Fitness 2
WRT101 English Composition I 3
$-17$

## Second Semester

ACC201 Accounting II 3
BNF204 Trust Functions \& Services* 3

| WEX... | $\begin{array}{l}\text { Dynamics of Health \& } \\ \text { Fitness Experience** }\end{array}$ |
| :--- | :--- |

SPE111 Speech Communication 3
WRT201 English Composition II 3
..... Humanities Elective** 3

- $\overline{1} \overline{6}$

Third Semester

| BUS233 | Business Law I | 3 |
| :--- | :--- | ---: |
| BNF201 | Principles of Finance | 3 |
| BNF205 | Credit \& Collection I* | 3 |
| ECO101 | Macro Economics | 3 |
| ..... | Natural Sciences** |  |
|  | or | $3-4$ |

M AT... M athematics Elective**

Fourth Semester
BUS234 Business Law II 3
BNF206 Credit \& Collection II* 3
INF101 Introduction to Information Technology3

...... Free Electives ..... 2-3

...... Humanities Elective $\dagger$
3

...... Social Science Elective** $\dagger$

[^23]
## LEGAL ASSISTANT

CODE AAS.BUS.LEGAL

## First Semester

WEX101 Dynamics of Health \& Fitness 2
LGL101 Fundamentals of Law I 3
LGL103 Legal Research \& Writing 3
OFF116 $\begin{aligned} & \text { Microsoft W ord for W indows-Fund } \\ & \text { or }\end{aligned}$
$\begin{array}{lll}\text { OFF119 } & \text { W ord Perfect-Fundamentals } \\ \text { W RT101 } & \text { English Composition I }\end{array}$
$\begin{array}{lll}\text { WRT101 } & \text { English Composition } & 3 \\ \text { Humanities Elective* } & 3\end{array}$
$-15$

## Sec ond Semester

| LGL203 | Introduction to Paralegalism <br> and Legal Procedure** |
| :--- | :--- |

REA101 Principles of Real Estate I 3
W RT201 English Composition II 3
$\begin{array}{ll}\text {..... } & \text { Natural Sciences* } \\ \text { or }\end{array}$
$\begin{array}{lll}\text { M AT.... } & \text { Mathematics Elective* } & \\ \text { INF162 } & \text { Intro to the Internet } & 1\end{array}$
OFF123 Business Communications 3
for Legal Assistants

Third Semester

| LGL202 | NJ \& Federal Courts** | 3 |
| :--- | :--- | :--- |
| LGLL205 | Mechanics of Property Transactions** | 3 |
| LGL208 | Mechanics of Family Law** | 3 |
| SPE111 | Speech Communication | 3 |
| ..... | Social Science Elective* | 3 |
| ..... | Free Elective | 3 |

## Fourth Semester

ACC207 Legal Accounting** 3

WEX... |  |
| :--- |
| Fitness Experience* |

| LGL206 | Mechanics of Commercial <br> Transactions** |
| :--- | :--- |

LGL207 Wills \& Administration** 3
$\begin{array}{ll}\text { LGL462 } & \begin{array}{l}\text { Co-Op W ork Experience } \\ \text { (Legal Assistant) }\end{array}\end{array}$
INF151 Microcomputer Database: Access 1
$-\overline{1} \overline{6}$

[^24]
## CARER PROGRAMS

## ASSOCIATE IN APPLIED SCIENCE (AAS) PROGRAMS IN BUSINESS TECHNOLOGIES

## HOTEL/RESTAURANT/HOSPITALITY CODEAAS.BT.HR.CATER

## CATERING/BANQUET MANAGEM ENT OPTION

## First Semester

## BUS101 Introduction to Business 3

BUS103 Business M athematics
HRM 101 Intro to Hospitality M anagement
HRM 102 Food Protection
HRM 106 M enu Planning \& Nutrition
WRT101 English Composition I
ERT101 English Composition I 3

## Sec ond Semester

ACC206 Hospitality Accounting 3
WEX101 Dynamics of Health and Fitness 2
HRM 103 Professional Food Preparation Techniques 3
HRM 205 Restaurant Service M anagement 3
WRT201 English Composition II 3
HRM 462 Co-Op W ork Experience
(Hotel/Restaurant/Hospitality)

Third Semester

| WEX... | Dynamics of Health \& Fitness Experience* | 1 |
| :---: | :---: | :---: |
| HRM 214 | Banquet/Catering M anagement | 2 |
| HRM 202 | Quantity Food Production Service** | 3 |
| HRM 203 | Beverage M anagement | 2 |
| HRM 204 | Food Purchasing | 2 |
| ... ... | Humanities Elective* | 3 |
| ... ... | Social Science Elective* | 3 |
|  |  | 16 |
| Fourth Semester |  |  |
| HRM 213 | Classical Garde-M anger |  |
|  | or |  |
| HRM 221 | Contemporary Garde-M anger | 3 |
| HRM 201 | Food \& Beverage Cost Control | 1 |
| HRM 206 | Commercial Restaurant Operation*** | 3 |
| HRM 207 | Hotel Sales \& Convention Planning | 1 |
| HRM 110 | Introduction to Baking | 3 |
| ... ... | Natural Sciences Elective* | 3-4 |
|  | or |  |
| M AT... | M athematics Elective* |  |
| ... | Humanities Elective* | 3 |

## HOTEL/RESTAURANT/HOSPITALITY CODE AAS.BT.HR.FOOD

## FOOD SERVICE M ANAGEM ENT OPTION

## First Semester

BUS101 Introduction to Business ..... 3
BUS103 Business M athematics ..... 3
HRM 101 Intro to Hospitality M anagement ..... 3
HRM 102 Food Protection ..... 3
HRM 106 M enu Planning \& Nutrition ..... 1
WRT101 English Composition I ..... 3
$-\overline{1} \overline{6}$
Second Semester
ACC206 Hospitality Accounting ..... 3
WEX101 Dynamics of Health and Fitness ..... 2
HRM 103 Professional Food Preparation Techniques ..... 3
HRM 205 Restaurant Service M anagement ..... 3
W RT201 English Composition II ..... 3
HRM 462 Co-Op W ork Experience (Hotel/Restaurant/Hospitality) ..... 2
-16
Third Semester
W EX... Dynamics of Health \& Fitness Experience* ..... 1
HRM 215 Food Service M anagement ..... 2
HRM 202 Quantity Food Production Service** ..... 3
HRM 203 Beverage M anagement ..... 2
HRM 204 Food Purchasing ..... 2
... ... Humanities Elective* ..... 3
... ... Social Science Elective* ..... 3
-1̄
Fourth Semester
BUS233 Business Law I ..... 3
HRM 201 Food \& Beverage Cost Control ..... 1
HRM 206 Commercial Restaurant Operation*** ..... 3
HRM 216 Food Facilities Planning ..... 2
HRM 217 Issues in the Hospitality Industry ..... 2
... ... Natural Sciences Elective* ..... 3-4M AT... M athematics Elective*
Humanities Elective* ... ... ..... 3
$1 \overline{7}-18$

* General Education Elective - see page 58
** Class offered only during Fall semester.
*** Class offered only during Spring semester.

[^25]ASSOCIA TE IN APPLIED SCIENCE (AAS)IN BUSINESS TECHNOLOGIES

## HOTEL/RESTAURANT/HOSPITALITY

CODE AAS.BT.HR.HOSP
HOSPITALITY M ANAGEM ENT OPTION

## First Semester

BUS101 Introduction to Business 3
BUS103 Business M athematics 3
HRM 101 Introduction to Hospitality M anagement 3
HRM 102 Food Protection 3
HRM 106 M enu Planning \& Nutrition 1
WRT101 English Composition I 3
$-\overline{1} \overline{6}$

## Sec ond Semester

ACC206 Hospitality Accounting 3
WEX101 Dynamics of Health and Fitness 2
$\begin{array}{ll}\text { HRM } 103 & \text { Professional Food Preparation } \\ & \text { Techniques }\end{array}$
HRM 205 Restaurant Service M anagement 3
W RT201 English Composition II 3
HRM 462 Co-Op Work Exp (H/R/H) 2
$-\overline{16}$
Third Semester
WEX... Dynamics of Health \& Fitness Experience*
HRM 104 Front Office Procedures 2
HRM 202 Quantity Food Production Service** 3
HRM 203 Beverage M anagement 2
HRM 204 Food Purchasing 2
... ... Humanities Elective* 3
... ... Social Science Elective* 3
$-\overline{16}$
Fourth Semester
BUS233 Business Law I 3
HRM 201 Food \& Beverage Cost Control 1
$\begin{array}{ll}\text { HRM } 206 & \begin{array}{l}\text { Commercial Restaurant } \\ \text { Operation*** }\end{array} \\ & \end{array}$
HRM 207 Hotel Sales \& Convention Planning 1
HRM ... Elective 3
... ... Natural Sciences Elective* or
MAT... Mathematics Elective*
... ... Humanities Elective*

3
$\overline{17}-1 \overline{1} \overline{1}$

* General Education Elective - see page 58
** Class offered only during Fall semester.
*** Class offered only during Spring semester.

| First Semester |  |  |
| :---: | :---: | :---: |
| INF101 | Introduction to Information Technology | 3 |
| INF... | Programming Language Fundamentals | 3 |
| INF150 | Business Programming Logic | 3 |
| WEX101 | Dynamics of Health and Fitness | 2 |
| BUS101 | Introduction to Business | 3 |
| W RT101 | English Composition I | 3 |
|  |  | 17 |
| Second Semester |  |  |
| INF253 | Technical Communications | 3 |
| INF... | Advanced Programming Languages | 3 |
|  | Introduction to the Internet |  |
|  | or | 1 |
| INF161 <br> INF.. <br> WEX.. | Internet Research and Data Handling |  |
|  | Restricted INF Elective | 3 |
|  | Dynamics of Health \& Fitness |  |
|  | Experience* | 1 |
| W RT201 | English Composition II | 3 |
|  | Social Science Elective* | 3 |
|  |  | 17 |
| Third Semester |  |  |
| ACC101 | Accounting I | 3 |
| INF208 | Systems Analysis \& Design | 3 |
| INF160 | Netw orking Technologies | 3 |
| INF... | Restricted INF Elective | 3 |
| INF245 | Database:SQL |  |
|  | or | 1 |
| INF151 | Database:Access |  |
|  | Humanities Elective* | 3 |
|  |  | 16 |
| Fourth Semester |  |  |
| ACC201 | Accounting II |  |
|  | or | 3 |
| $\begin{aligned} & \text { BUS271 } \\ & \text { INF239 } \end{aligned}$ | Internet Commerce |  |
|  | Applications Development | 3 |
|  | Humanities Elective* | 3 |
| INF... | Restricted INF Elective | 3 |
|  | Natural Sciences Elective* |  |
|  | or | 3-4 |
| MAT... | M athematics Elective* |  |
|  |  |  |

## Programming Language Elective: Fundamentals

INF145 Introduction to Visual Basic for Business
INF152 C/C++ Programming for Business
INF242 RPG/400 Programming
Programming Language Elective: Advanced
(Part 2 of a continuing sequence)
INF224 Advanced C/C++ Programming for Business
INF243 Advanced RPG/400 Programming
INF246 Advanced Visual Basic for Business

## Restricted INF Electives

Programming language courses cannot duplicate as Resitricted INF Electives when selected as Programming Language Electives

INF107 M ini Computer Operations
INF108 PC Upgrade, M aintenance and Diagnosis
INF140 Introduction to Multimedia
INF146 W eb Development Using HTM L
INF145 Introduction to Visual Basic for Business
INF152 C/C++ Programming for Business
IN F160 Networking Technologies and Data Communications
INF202 COBOL Programming
INF217 Database for Business Applications
INF224 Advanced C/C++ Programming for Business
INF232 Windows NT
INF235 Advanced PC Upgrade, M aintenance and Diagnosis
INF237 Introduction to Business Applications of Expert Systems
INF241 J ava for Business Applications
INF242 RPG/400 Programming
INF246 Advanced Visual Basic for Business
INF249 Visual C++ for Windows with M FC
INF254 Unix for the Netw ork Administrator
INF260 Technical Support Operations

## Mathematics or Natural Science Elective

One of the following mathematics electives is
strongly recommended.
M AT150 Elementary Statistics
M AT180 Precalculus: College Alg \& Trig
M AT223 Calculus for M anagerial \& Soc Sciences
MAT280 Calculus I

| NETW ORKING ADMINISTRATION CODEAAS.BT.NET.ADM |  |  | OFFICE SYSTEMS TECHNOLOGY - WORD PROCESSING CODE AAS.BT.OS.W ORD |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| First Semester |  |  | First Semester |  |  |
| INF101 | Introduction to Information Technology | 3 | BUS101 | Introdcution to Business | 3 |
| BUS101 | Introduction to Business Administration | 3 | WEX101 | Dynamics of Health and Fitness | 2 |
| INFI63 | Internet Concepts \& Applications | 3 | OFF101 | Keyboarding I | 3 |
| INFI160 | Netw orking Technologies \& Data |  | OFF104 | Intro to Office Automation | 3 |
|  | Communications | 3 | OFF105 | Speedwriting I* | 3 |
| WRT101 <br> INFI44 | English Composition I | 1 | W RT101 | English Composition I | 3 |
|  | W indows NT Desktop Operations | 1 |  |  |  |
|  |  | $\overline{1} \overline{6}$ |  |  |  |
|  |  |  | Second Semester |  |  |
| Sec ond Semester |  |  | WEX.. | Dynamics of Health \& Fitness |  |
| INF232 | W indows NT | 3 |  |  |  |  |
| INF108 | PC Upgrade, M aintenance \& Diagnosis | 3 | OFF201 | Keyboarding II | 3 |
| IN F253 | Technical Communications | 3 | OFF209 | WordPerfect-Comprehensive | 3 |
|  | Internet Restricted Elective* | 3 | INF112WRT201 | M icrosoft Windows | 1 |
| W RT201 | English Composition II | 3 |  |  | 3 |
| W EX101 | Dynamics of Health \& Fitness | 2 | W RT201 ...... | English Composition II Humanities Elective** | 3 |
|  |  |  | ... ... | Natural Sciences** or |  |
|  |  | 17 |  |  | 3-4 |
|  |  |  | MAT... | M athematics Elective** |  |
| Third Semester |  |  |  |  |  |
| INF254 | UNIX for the Netw ork Administrator | 3 |  |  | 17-18 |
| INF255 | Netw ork Planning \& Design | 3 |  |  |  |
| INF252 | W indows NT Advanced Administration | 3 | Third Semester |  |  |
| WEX... | Dynamics of Health \& Fitness |  | INF124 | Excel | 1 |
|  | Experience** | 1 | BUS103 | Business M ath | 3 |
| ...... | Social Science Elective** | 3 | OFF103 | Business Communications | 3 |
| ...... | Humanities Elective** | 3 | OFF210 | M achine Transcription | 2 |
|  |  |  | OFF150 | Powerpoint | 1 |
|  |  | $\overline{1} \overline{6}$ | OFF231 | Desktop Publishing PageM aker* | 3 |
| Fourth Semester |  |  | ... ... | Social Science Elective** | 3 |
| INF257 | Netw ork Troubleshooting | 3 |  |  |  |
| INF256 | Topics in Networking | 3 |  |  | 16 |
| INF258 | TCP/IP | 3 |  |  |  |
|  | Humanities Elective** | 3 | Fourth Semester |  |  |
| ...... | Natural Sciences Elective** |  | ACC101 | Accounting Ior |  |
|  | or | 3-4 | BUS233 |  | 3 |
| M AT... | M athematics Elective** $\dagger$ |  | BUS233 | Business Law I |  |
|  |  |  | OFF207 | Administrative Office Practice | 3 |
|  |  | 15-1/ $\overline{6}$ | OFF240 | W ord for W indows Comprehensive | 3 |
|  |  |  | ... ... | Humanities Elective** | 3 |
|  |  |  | ... ... | Free Elective*** | 3 |
| * Internet Restricted Elective: |  |  |  |  |  |
| INF 263 | Programming the Internet |  |  |  | 15 |
| INF146 | Web Development Using HTM L |  |  |  |  |
| ${ }_{* *}$ BUS171 | Internet Commerce |  | * Class may be offered only in the evening. <br> ** General Education Elective - see page 58 |  |  |
| **General Education Elective - see page 58 <br> $\dagger$ One of the following mathematics electives is strongly recommended: |  |  |  |  |  |
| $\dagger$ One of theM AT155M AT150 | Finite M athematics |  | *** OFF46 | Cooperative W ork Experience, or eedwriting II is recommended. |  |
|  | Elementary Statistics <br> Calculus for M anagerial \& Social Sciences |  |  |  |  |
| MAT223 |  |  | OFF205 Speedwriting II is recommended. |  |  |

## TRAVEL AND TOURISM <br> CODE AAS.BT.TRAVL

## First Semester

WRT101 English Composition I 3
TRV101 Introduction to Travel and Tourism 3
TRV103 Travel Area Studies 3

TRV104 Travel-Electronic Ticketing-SABRE 3
OFF101 Keyboarding I 3
OFF103 Business Communications 3

## Second Semester

| BUS101 | Introduction to Business | 3 |
| :--- | :--- | :--- |
| WRT201 | English Composition II | 3 |
| WEX101 | Dynamics of Health \& Fitness | 2 |
| OFF209 | WordPerfect Comprehensive |  |
|  | or | 3 |
| OFF240 | Word for W indow Comprehensive |  |
| TRV204 | Travel Planning and M arketing | 3 |
| TRV205 | Travel Documentation Lab | 1 |

$-\overline{15}$

## Third Semester

BUS103 Business Mathematics 3
BUS233 Business Law I 3

TRV210 Corporate Travel 3
WEX... Dynamics of Health \& Fitness Experience*

... ... Humanities Elective*
... ... Social Science Elective*


M AT... M athematics Elective*
Humanities Elective*
... ... Free Elective
$16-1 \overline{9}$

* General Education Elective - see page 58
** Restricted Elective: 1-2 credits from TRV106, TRV461, TRV462, TRV463, INF112, IN F124, INF151, INF162, or INF245.

WEB DEVELOPM ENT AND MANAGEMENT
CODE AAS.BT.WEB.MGMT

## First Semester

INF101 Introduction to Information Technology 3
BUS101 Introduction to Business Administration 3
ART122 Two Dimensional Design 3
INF150 Business Programming Logic 3
W RT101 English Composition I 3
INF144 Windows NT Desktop Operations 1

## Sec ond Semester

INF163 Internet Concepts and Applications 3
INF146 Web Development Using HTM L 3
ART259 Computer Graphics for the W eb Developer 3
INF145 Introduction to Visual Basic for Business 3
W RT201 English Composition II 3
W EX101 Dynamics of Health and Fitness 2

Third Semester

| INF253 | Technical Communications | 3 |
| :--- | :--- | :--- |
| IN F160 | Networking Technologies and Data |  |
|  | Communications | 3 |

INF246 Advanced Visual Basic for Business 3
WEX... $\begin{aligned} & \text { Dynamics of Health and Fitness } \\ & \text { Experience* }\end{aligned}$
...... Social Science Elective* 3
...... Humanities Elective* 3
$1 \overline{1}$
Fourth Semester

| INF263 | Programming the Internet | 3 |
| :---: | :---: | :---: |
| INF241 | J ava for Business A pplications |  |
|  | or |  |
| IN F232 | W indows NT | 3 |
| BUS271 | Internet Commerce | 3 |
| ...... | Humanities Elective* | 3 |
| ...... | Natural Sciences Elective* |  |
|  | or 3-4 |  |
|  | M athematics Elective* $\dagger$ |  |
| IN F248 | Active X Control Development Using |  |
|  | Visual B asic | 1 |

* General Education Elective - see page 58
$\dagger$ One of the following mathematics electives is strongly recommended.
M AT155 Finite M athematics
MAT150 Elementary Statistics
MAT223 Calculus for M anagerial \& Social Sciences


## CAREER PROGRAMS

## ASSOCIATE IN APPLIED SCIENCE (AAS) PROGRAMS IN HUM AN SERVICES

| CRIM INAL J USTICE (FULL-TIM E SEQUENCE) CODE AAS.HS.CRIMJ.FT |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| CRJ 101 | Introduction to Criminal J ustice | 3 |
| CRJ 103 | Criminal Law | 3 |
| W EX101 | Dynamics of Health and Fitness | 2 |
| W RT101 | English Composition I | 3 |
| ... ... | Humanities Elective* | 3 |
| ... ... | Social Science Elective* | 3 |
|  |  | 17 |
| Sec ond Semester |  |  |
| CRJ 105 | Police Administration | 3 |
| WEX... | Dynamics of Health \& Fitness |  |
|  | Experience* | 1 |
| POL104 | State \& Local Government | 3 |
| SOC101 | Sociology | 3 |
| W RT201 | English Composition II | 3 |
| ... ... | Humanities Elective* | 3 |
|  |  | $1 \overline{16}$ |
| Third Semester |  |  |
| CRJ 107 | Criminology | 3 |
| CRJ 109 | Contemporary Issues in Policing | 3 |
| LIT220 | Social Aspects of Literature | 3 |
| S0C201 | Social Problems | 3 |
|  | Natural Sciences Elective* | 3-4 |
| ... ... | or |  |
| M AT... | M athematics Elective* |  |
|  |  | 15-1] |
| Fourth Semester |  |  |
| CRJ 111 | Criminal Investigation | 3 |
| CRJ 113 | The J uvenile J ustice Process | 3 |
| PSY102 | Abnormal Psychology |  |
|  | or | 3 |
| PSY104 | Psychology of Human Relations |  |
| SOC103 | Sociology of the Family |  |
| SPE111 | Speech Communication | 3 |
| ..... | Free Elective | 2 |

[^26]
## CRIMINAL J USTICE (PART-TIME SEQUENCE) CODE AAS.HS.CRIMJ.PT

## FIRST YEAR

## Fall Semester

CRJ 101 Introduction to Criminal J ustice 3
WEX101 Dynamics of Health and Fitness 2
W RT101 English Composition I $-\frac{3}{8}-$

Spring Semester
CRJ 103 Criminal Law 3
W RT102 English Composition II 3
WEX... Dynamics of Health \& Fitness Experience*

Summer I

| ... | Social Science Elective* | 3 |
| :---: | :---: | :---: |
| Summer II |  |  |
| SOC101 | Sociology | 3 |
| SECOND YEAR |  |  |
|  |  |  |
| CRJ 105 | Police Administration | 3 |
| S0C103 | Sociology of the Family | 3 |
|  | Humanities Elective* | 3 |

Spring Semester

| POL104 | State \& Local Government | 3 |
| :--- | :--- | ---: |
| $\ldots . .$. | Humanities Elective* | 3 |
|  |  | $-\frac{1}{6}-1$ |

THIRD YEAR
Fall Semester
CRJ 107 Criminology 3
SPE111 Speech Communication 3
... ... Free Elective $\quad-{ }_{8}^{-}$
Spring Semester

| CRJ 109 | Contemporary Issues in Policing | 3 |
| :--- | :--- | :---: |
| $\ldots . . .$. | Natural Sciences Elective* | or |

MAT... Mathematics Elective* - $\overline{6-\overline{7}}$

| Summer |  |
| :--- | :--- |
| SOC201 | Social Problems |

FOURTH YEAR
Fall Semester
CRJ 111 Criminal Investigation 3

PSY102 Abnormal Psychology | or |
| :--- | :--- |

PSY104 Psychology of Human Relations - $\overline{6}$ -
Spring Semester
$\begin{array}{llr}\text { CRJ } 113 & \text { The J uvenile J ustice Process } & 3 \\ \text { LIT220 } & \text { Social Aspects of Literature } & -\frac{3}{6}\end{array}$

* General Education Elective - see page 58

EARLY CHILDHOOD EDUCATION
CODE AAS.HS.EARLY.CHILD

## First Semester

PSY101 General Psychology 3
SOC102 Introduction to Human Services 3
W RT101 English Composition I 3
..... Humanities Elective* 3
..... $\begin{aligned} & \text { Natural Sciences } \\ & \text { or }\end{aligned}$
M AT... $\quad$ athematics Elective*

$$
-15-1 \overline{1}
$$

## Sec ond Semester

EDU101 Introduction to Education 3

EDU120 Early Childhood Education I 3
WEX101 Dynamics of Health and Fitness 2
SPE111 Speech Communication 3
W RT201 English Composition II 3
..... Social Science Elective* 3

Third Semester

| EDU124 | Curriculum M aterials \& M ethods | 3 |
| :--- | :--- | :--- |
| EDU130 | Infants and Toddlers in Early |  |
|  | Childhood Education | 3 |
| EDU220 | Early Childhood Education II | 3 |
| EDU222 | Supervised Field W ork Experience I | 2 |
| EDU223 | Field W ork Seminar I | 2 |
| WEX... | Dynamics of Health \& Fitness |  |
| PSY201 | Experience* | Child Psychology |

Fourth Semester
EDU126 Developing \& Implementing Curriculum 3
EDU132 Parenting of Very Young Children 3
EDU224 Supervised Field Work Exp II 2
EDU225 Field W ork Seminar II 2
SOC103 $\begin{aligned} & \text { Sociology of the Family } \\ & \text { or }\end{aligned}$
$\begin{array}{lll}\text { SOC120 } & \text { Sociology of Gender Roles } \\ \text {..... } & \text { Humanities Elective* } & 3\end{array}$
-16

[^27]
## CAREER PROGRAMS

ASSOCIATE IN APPLIED SCIENCE (AAS) PROGRAMS IN INDUSTRIAL \& DESIGN TECHNOLOGIES
DRAFTING AND DESIGN TECHNOLOGY
CODE AAS.IDT.DRAFT

| First Semester |  |
| :---: | :---: |
| DFT107 | Drafting I |
| M AT116 | Technical M ath I |
|  | or |
| M AT180 | Precalculus |
| M AT163 | Computer Prog BASIC |
|  | or |
| M AT165 | C++Programming I |
| W RT101 | English Composition I |
| ..... | Humanities Elective* |
| ..... | Social Science Elective |

## Sec ond Semester

| DFT207 | Drafting II |
| :--- | :--- |
| DFT208 | Engineering Graphics I |
| WEX101 | Dynamics of Health and Fitness |
| W RT201 | English Composition II |
| ..... | Humanities Elective* $\dagger$ |
| .... | Natural Sciences* $\ddagger$ |
| MAT... | or |
| M athematics Elective* |  |

## Third Semester

DFT209 Engineering Graphics II 3

DFT215 M echanical Building Systems I 3
DFT262 Architectural Drafting 3
DFT265 Architectural Practice \& Planning 3
HRT104 Landscape Plants \& M aterials I 2
WEX... Dynamics of Health \& Fitness Experience*

## Fourth Semester

| DFT216 | Mechanical Building Systems II |  |
| :--- | :--- | :--- |
|  | or | 2-3 |

DFT462 Co-Op W ork Exp (Drafting)
DFT220 Electrical Drafting \& Design
DFT263 Architectural Design
DFT266 M aterials \& M ethod of Construction or
TEC254 Robotics
DFT282 Technical Illustration
HRT113 Principles of Landscaping

3
$\overline{17-1} \overline{18}$

## ELECTRONICS TECHNOLOGY

CODEAAS.IDT.ELECT.TECH

| 2 |
| :---: |
| $3-4$ |
|  |
| 3 |
| 3 |
| 3 |
| 3 |
| $17-18$ |

## First Semester

## Second Semester

MAT... Mathematics Elective* $\dagger$

Third Semester

Fourth Semester

[^28]| ELC101 | DC-Circuit Analysis | 4 |
| :--- | :--- | :---: |
| TEC180 | Problem Solving Using Technology | 4 |
| ELC100 | Introduction to Electrical Technology | 2 |
| WRT101 | English Composition I | 3 |
| WEX101 | Dynamics of Health and Fitness | 2 |
|  |  | -15 |

ELC201 AC-Circuit Analysis 4
ELC203 Electronics I 4
W RT201 English Composition II 3
WEX... $\begin{aligned} & \text { Dynamics of Health \& Fitness } \\ & \text { Experience* }\end{aligned}$
... ... $\begin{aligned} & \text { Natural Sciences* } \\ & \text { or }\end{aligned}$
ELC204 Electronics II 4

ELC214 Communication Systems I 4
PHY186 General Physics I 4
... ... Humanities Elective* 3
... ... Social Science Elective* 3

| ELC215 | Communication Systems II | 4 |
| :--- | :--- | :---: |
| PHY286 | General Physics II | 4 |
| CHM 100 | Intro to Chemistry | 4 |
| $\ldots \ldots$ | Humanities Elective* | 3 |
| W RT202 | Technical Writing |  |
|  | or | $2-3$ |
| ELC462 | Co-Op W ork Experience (Electronics) |  |

[^29]
## GENERAL ENGINEERING TECHNOLOGY <br> CODEAAS.IDT.ET.GEN

| First Semester |  |  |
| :---: | :---: | :---: |
| DFT107 | Drafting I | 2 |
| ELC101 | DC-Circuit Analysis | 4 |
| W EX101 | Dynamics of Health and Fitness | 2 |
| MAT116 | Technical M athematics I | 3 |
| W RT101 | English Composition I | 3 |
| ... | Social Science Elective* | 3 |
|  |  | 17 |
| Second Semester |  |  |
| DFT207 | Drafting II | 3 |
| ELC201 | AC-Circuit Analysis | 4 |
| M AT163 | Computer Programming: BASIC |  |
|  | or | 3 |
| M AT165 | C++Programming I |  |
| M AT222 | Technical M athematics II** | 4 |
| W EX... | Dynamics of Health \& Fitness |  |
|  | Experience* | 1 |
| W RT201 | English Composition II | 3 |
|  |  | 18 |
| Third Semester |  |  |
| DFT210 | CAD I | 3 |
| ELC203 | Electronics I | 4 |
| TEC254 | Robotics | 3 |
| PHY185 | Introduction to Physics*** | 4 |
| ... ... | Humanities Elective* | 3 |
|  |  | 17 |
| Fourth Semester |  |  |
| ELC204 | Electronics II | 4 |
| M AT150 | Elementary Statistics*** |  |
| TEC257 | Introduction to M anufacturing Systems | 3 |
| ... ... | Humanities Elective* | 3 |
| ... ... | Restricted Electives $\dagger$ | 2-5 |
|  |  | 15-18 |

* General Education Elective - see page 58
** It is recommended that students planning to transfer to a baccalaureate degree in technology substitute M AT180 for M AT222. The grade of C or better in M AT116 will substitute for the prerequisite of M AT045.
*** It is recommended that students planning to transfer to a baccalaureate degree in technology substitute PHY186 and PHY286 for PHY185 and M AT150. These students may also need to first take PHY185 if they have not had a high school physics course.
$\dagger$ Restricted Electives: DFT208, DFT211, DFT282, ELC126


## MANUFACTURING ENGINEERING TECHNOLOGY (CIM ENGINEERING TECHNOLOGY) CODEAAS.IDT.ET.MFTG

First Semester
DFT107 Drafting I 2
ELC101 DC-Circuit Analysis 4
MAT165 C++ Programming I 3
MAT280 Calculus I 4
WRT101 English Composition I 3

Second Semester
ELC201 AC-Circuit Analysis 4
WEX101 Dynamics of Health and Fitness 2
$\begin{array}{ll}\text { M AT271 } & \text { Computer Organization } \\ & \text { \& Assembly Language }\end{array}$
MAT265 C++ Programming II 3
W RT201 English Composition II 3
... ... Humanities Elective* 3
--18

Third Semester
DFT210 CADI 3
WEX... . $\begin{aligned} & \text { Dynamics of Health \& Fitness } \\ & \text { Experience* }\end{aligned}$
TEC254 Robotics 3
M AT281 Calculus II 4
PHY186 General Physics I 4
... ... Social Science Elective* 3
$-18$
Fourth Semester

| TEC257 | Introduction to M anufacturing Systems | 3 |
| :--- | :--- | :--- |
| PHY286 | General Physics II | 4 |
| IET318 | Manufact Process Design (NJ IT) ** | 3 |
| IET... | CIM Project (NJ IT)** | 2 |
| ..... | Humanities Elective* | 3 |

* General Education Elective - see page 58
**Courses will be offered only at the New J ersey Institute of Technology, Newark, N.J.


## CAREER PROGRAMS

ASSOCIATE IN APPLIED SCIENCE (AAS) PROGRAMS IN NURSING


NURSING CURRICULUM (EVENING SESSION) CODE AAS.NURS.EVE

Spring Semester
BIO109 Anatomy \& Physiology I* 4
PSY101 General Psychology* 3
WRT101 English Composition I* 3 $-10$
Summer Semester
$\begin{array}{llr}\text { WEX101 } & \text { Dynamics of Health \& Fitness* } & 2 \\ \text { S0C101 } & \text { Sociology* } & 3 \\ & & -5{ }^{*}\end{array}$
Fall Semester
BIO209 Anatomy \& Physiology II* 4
PSY106 Developmental Psychology* 3
W RT201 English Composition II* 3
Spring Semester
NUR181 Physical Assessment 1
NUR182 Pharmacology for Nurses 1
NUR183 Basic Concepts \& Skills of Nursing 6 $-8-$

## Summer Semester

W EX... $\begin{aligned} & \text { Dynamics of Health \& Fitness } \\ & \text { Experience** }\end{aligned}$
BIO104 Microbiology 4
Fall Semester

| NUR281 | Adult Health Nursing A | 4 |
| :--- | :--- | ---: |
| NUR282 | Adult Health Nursing B | 4 |
|  |  | $-8^{-}$ |

Spring Semester
NUR284 M aternal-Child Health Nursing 5
NUR285 Mental Health Nursing 4

Summer Semester
..... Humanities Electives** 6
Fall Semester
NUR290 Adult Health Nursing C 4
NUR291 Adult Health Nursing D

[^30]
## CAREER PROGRAMS

## ASSOCIATE IN APPLIED SCIENCE (AAS) PROGRAMS IN SCIENCE TECHNOLOGIES

| ENVIRONMENTAL TECHNOLOGY CODE AAS.ST.ENV |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| WRT101 | English Composition I | 3 |
| CHM 100 | Introduction to Chemistry | 4 |
| BIO101 | General B iology | 4 |
| ENV112 | Environmental Health | 3 |
| W EX101 | Dynamics of Health \& |  |
|  | Fitness | 2 |
|  |  | $1 \overline{16}$ |
| Second Semester |  |  |
| WRT201 | English Composition II | 3 |
| M AT150 | Elementary Statistics | 3 |
| ENV121 | Environmental M icrobiology | 4 |
| ..... | Science Elective* | 3-4 |
| ...... | Humanities Elective** | 3 |
|  |  | 16-17 |
| Third Semester |  |  |
| TEC180 | Problem Solving Using Technology | 4 |
| ENV109 | Environmental Policy Compliance \& |  |
|  | Regulation | 3 |
| B10227 | Principles of Ecology | 4 |
| ...... | Humanities Elective** | 3 |
| ...... | Social Science Elective** | 3 |
|  |  | 17 |
| Fourth Semester |  |  |
| ENV122 | Environmental Chemistry | 4 |
| WEX201 | Dynamics of Health \& Fitness |  |
|  | Experience** | 1 |
| TEC190 | Introduction to Geographic Information |  |
|  | Systems | 4 |
| ENV113..... | Human Environment | 3 |
|  | General Electives (see below) | 4 |
|  |  | 16 |
| * Recommended Science Electives: |  |  |
| ${ }^{810203}$ | General Biology II | 4 |
| B10107 | Introduction to Human Biology | 4 |
| GE0101 | Geography | 3 |
| ESC113 | Geology | 4 |
| PHY185 | Introduction to Physics | 4 |
| ESCC114 | Climatology | 4 |
| General Electives: |  |  |
|  |  |  |
| ENV461 | Co-op W ork Experience | 1-4 |
| ENV114 | Field Lab Experience | 1 |
| ANT101 | Cultural Anthropology | 3 |
| BUS101 | Introduction to Business | 3 |
| DFT107 | Drafting 1 | 2 |
| LGL101 | Fundamentals of Law | 3 |
| COM 210 | Public Relations | 3 |
| OFF103 | Business Communications | 3 |
| POL107 | Introduction to Politics | 3 |
| PHR102 | Ethics | 3 |
| PSY104 | Psychology of Human Relations | 3 |
| PSY122 | Ethology and Environmental Psychology | 3 |
| SoC105 | Urban Sociology | 3 |
| WEX125 | Introduction to Recreation | 3 |
| WRT202 | Technical W riting | 3 |

## HORTICULTURE <br> CODE AAS.ST.HORT

## First Semester

| HRT101 | Fundamentals of Horticulture | 3 |
| :---: | :---: | :---: |
| HRT102 | Plant and Soil Science | 4 |
| HRT104 | Landscape Plants and M aterials I | 2 |
| W RT101 | English Composition I | 3 |
| ..... | Natural Sciences Elective* $\dagger$ |  |
|  | or | 3-4 |
| M AT... | M athematics Elective* |  |
|  |  | $\overline{15-1} \overline{1}$ |
| Second S | ester |  |
| HRT120 | Interior Plantscaping | 3 |
| HRT232 | Greenhouse M anagement \& Propagation | 4 |
| HRT233 | Landscape Plants \& M aterials II | 4 |
| W RT201 | English Composition II | 3 |
| ..... | Social Science Elective* | 3 |

## Third Semester

WEX101 Dynamics of Health and Fitness 2

HRT103 Turf and Grounds M anagement 3
HRT112 Pests of Ornamental Plants 4
HRT204 Landscape Graphics \& Design 2
HRT236 Horticulture M arketing \& Sales 3
..... Humanities Elective* 3

- 17

Fourth Semester
BUS101 Introduction to Business Administration 3
WEX... Dynamics of Health \& Fitness
Experience*
HRT113 Principles of Landscaping 3
HRT... Restricted HRT Elective 3-4
HRT462 Co-Op W ork Exp (Hort) 2
Humanities Elective* 3

[^31]INTERDISCIPLINARY LABORATORY SCIENCE TECHNOLOGY CODE AAS.ST.LST

## First Semester

| BIO101 | General B iology | 4 |
| :--- | :--- | :--- |
| CHM 140 | General Chemistry I | 3 |
| CHM 141 | General Chemistry II | 1 |
| DFT107 | Drafting I | 2 |
| W RT101 | English Composition I | 3 |
| M AT116 | Technical M athematics I | 3 |

BIO104 Microbiology 3

CHM 212 Organic and Biochemistry 4
...... Humanities Elective* 3
W RT201 English Composition II 3
MAT222 Technical Mathematics II 4

Third Semester
PHY286 General Physics II 4
TEC202 Science Laboratory Technology II 4
ENV108 Hazardous W aste Site Operations 3
...... Social Science Elective* 3
WEX101 Dynamics of Health \& Fitness 2

Fourth Semester
PHY286 General Physics II 4
TEC202 Science Laboratory Technology II 4
$\begin{array}{ll}\text { SPE119 } & \begin{array}{l}\text { Effective Speaking for Business } \\ \text { and Professional Personnel }\end{array}\end{array}$
..... Humanities Elective* 3
$\begin{array}{ll}\text { TEC203 } & \text { Work Based Learning in Science and } \\ \text { Technology }\end{array}$
WEX... $\begin{aligned} & \text { Dynamics of Health \& Fitness } \\ & \text { Experience* }\end{aligned}$
$-\overline{16}$
*General Education Elective - see page 58

## CAREER PROGRAMS

ONE YEAR CERTIFICATES
To receive a Certific ate in one of the programs listed on the following pages, a student must complete all courses and specific requirements listed within the chosen program of study.

| COMPUTER AIDED DRAFTING (CAD) CODE CERT.CAD |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| DFT107 | Drafting I | 2 |
| DFT210 | CAD I |  |
| M AT116 | Technical M ath I |  |
| M AT163 | Computer Programming: Basic | 3 |
| W RT101 | English Composition I | 3 |
|  |  | 14 |
| Second Semester |  |  |
| DFT207 | Drafting II | 3 |
| DFT211 | CAD II | 5 |
| PHY185 | Introduction to Physics | 4 |
|  |  | 12 |
| Third Semester |  |  |
| DFT208 | Engineering Graphics I* |  |
|  | or | 3 |
| TEC254 | Robotics** |  |
| DFT212 | CAD III | 3 |
| ... ... | General Education Elective*** | 3 |
|  |  | 9 |

[^32] *** General Education Elective - see page 58

| COMPUTER SCIENCE <br> CODE CERT.COMP.SCI |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| M AT165 | C++ Programming I* | 3 |
| W RT101 | English Composition I | 3 |
| ... ... | General Education Elective** | 3 |
|  |  | 9 |
| Second Semester |  |  |
| M AT265 | C++Programming II | 3 |
| M AT271 | Computer Organization \& |  |
|  | Assembly Language I | 3 |
| ... ... | General Education Elective** | 3 |
|  |  | 9 |
| Third Semester |  |  |
| M AT277 | Data Structures \& Algorithms | 3 |
| MAT... | Computer Science/M athematics Electives*** | $\frac{9}{-12}$ |
| * By permission of the Department Head, properly prepared students may instead register for M AT265 and/or M AT271. Such students will be required to complete an additional 3 or 4 credit elective to be selected from: M AT250, M AT266, M AT272, M AT275, M AT278, M AT280, M AT281, M AT282, M AT286, M AT287, M AT288, M AT289. |  |  |
| ** General Education Elective - see page 58. PHR103 Basic Logic or PHR203 Intermediate Logic is recommended for the General Education Elective. |  |  |
| *** The elective requirement in Computer Science and/or M athematics must total at least 9 credits to be selected from the following courses: MAT250, M AT266, M AT272, M AT275, M AT278, M AT280, M AT281, M AT282, M AT286, M AT287, M AT288, M AT289. |  |  |

## ONE YEARCERTIFICATES

The Computer Animation and the Computer Graphics Certificates are designed for practicing professionals in these fields or for students who have already completed substantial college level work. Entry level commercial art students should consider one of the Associate of Applied Science art programs. Students may choose only those courses for which prerequisites have been met. Returning professionals may request that prerequisites be waived by submitting a portfolio for review by a member of the art faculty. To request a portfolio review, please contact the Department of Arts and Humanities at 447-7143. To avoid registration problems, please contact the department prior to registering for classes for which you have not taken the required prerequisites.

## COM PUTER ANIMATION <br> CODE CERT.COM P.ANIM

## First Semester

ART290 Computer 2D Animation I* 3
ART292 Computer 3D Animation I* 3
ART... Restricted Elective (see below) 3
WRT101 English Composition I 3
...... General Education Elective** 3

Second Semester
ART291 Computer 2D Animation II* 3
ART293 Computer 3D Animation II* 3
ART297 Computer Imaging *** 3
ART... Restricted Electives (see below) 6
...... General Education Elective** 3

Restricted Electives:
ART126 Introduction to Computer Graphics***
ART181 PhotographyI
ART226 Letterform and Type
ART260 Graphic Design I
ART261 Graphic Design II
ART266 Illustration I
(Not offered during 2000-2001)
ART271 Portfolio Presentation
ART275 Advertising Illustration
(Not offered during 2000-2001)
ART276 Edit/Book Illustration
(Not offered during 2000-2001)
ART277 Med/Sci/Tech Illustration
(Not offered during 2000-2001)
ART281 Photography II
ART282 Color Photography
(Not offered during 2000-2001)
ART283 Studio Photography
(Not offered during 2000-2001)
ART285 Advanced Darkroom Technique
(Not offered during 2000-2001)
ART287 Computer Layout I***
ART288 Computer Layout II***
ART289 Computer 2D Illustration***
ART298 Presentation Graphics***
*Course uses Intergraph NT computers.
**General Education Elective - see page 58
***Course uses M acintosh computers.

## COM PUTER GRAPHICS <br> CODE CERT.COM P.GRAPH

## First Semester

ART287 Computer Layout I* 3

ART289 Computer 2D Illustration* 3
ART... Restricted Electives (see below) 6
WRT101 English Composition I 3

Second Semester
ART288 Computer Layout II* 3

ART297 Computer Imaging* 3
ART... Restricted Electives (see below) 6
...... General Education Elective** 3

| COMPUTER TECHNICAL/HELP DESK SUPPORT CODE CERT.COMP.HELP.DESK |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| BUS101 | Introduction to Business | 3 |
| INF101 | Introduction to Information Technology | 3 |
| INF144 | W indows NT Desktop Operations | 1 |
| INF114 | M icrosoft Office | 3 |
| W RT101 | English Composition I | 3 |
| INF162 | Introduction to the Internet | 1 |
| INF160 | Netw orking Technologies \& |  |
|  | Data Communications | 3 |
|  |  | $1 T$ |
| Sec ond Semester |  |  |
| INF260 | Technical Support Operations | 3 |
| INF253 | Technical Communications | 3 |
| INF232 | W indows NT |  |
|  | or | 3 |
| IN F254 | Unix for the Netw ork Administrator |  |
| INF143 | Web Publishing with Front Page | 1 |
| INF108 | PC Upgrade, M aintenance \& Repair | 3 |
| ... | General Education Elective* | 3 |

DESKTOP PUBLISHING
CODE CERT.DESK.PUBL
First Semester-Summer Session
OFF101 Keyboarding I* 3

Second Semester
INF112 Microsoft Windows 1
OFF201 Keyboarding II* 3
OFF209 WordPerfect-Comprehensive 3
OFF210 Machine Transcription 2
WRT101 English Composition I 3
..... General Education Elective** 3

Third Semester
OFF103 Business Communications 3
OFF231 Desktop Publishing-PAGEM AKER 3
OFF240 Word for Windows-Comprehensive 3
INF124 Excel 1
... ... General Education Elective** 3

## CULINARY ARTS <br> CODE CERT.CULN.ARTS

## First Semester

HRM 102 Food Protection 3
HRM 103 Professional Food Prep Techniques
HRM 110 Introduction to Baking
HRM 202 Quantity Food Production Service
WRT101 English Composition I General Education Elective*
... ...

## Sec ond Semester

HRM 106 M enu Planning and Nutrition 1
HRM 108 Computer Applications for Hospitality Industry
HRM 206 Commercial Restaurant Operation
HRM 212 International Cuisine
HRM 213 Classical Garde-M anger or
HRM 221 Contemporary Garde M anger
HRM 220 Advanced Baking Techniques
... ... General Education Elective*

## ENVIRONMENTAL TECHNOLOGY

CODE CERT.ENV.TECH

## First Semester

| ENV108 | Hazardous W aste Site Operations | 3 |
| :--- | :--- | :---: |
| ENV109 | Environmental Policy Compliance |  |
|  | and Regulation | 3 |
| ENV112 | Environmental Problem Solving | 3 |
| WRT101 | English Composition I | 3 |
| ..... | General Education Elective** | $3-4$ |

Sec ond Semester
ENV121 Environmental M icrobiology 4
ENV113 Human Environment 3
TEC180 Problem Solving Using Technology 4
TEC190 Introduction to GIS 3 General Education Elective ${ }^{* *} \ddagger \quad$ 3-4

[^33]
## one Year Certificates

| EXERCISE SCIENCE CODE CERT EXER.SCI |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| BUS101 | Introduction to Business | 3 |
| BIO103 | The Human Body | 4 |
| W EX159 | Cardio-Pulmonary Resuscitation \& Emergency First Aid | 3 |
| W EX164 | Exercise Science | 3 |
| W RT101 | English Composition I | 3 |
|  |  | 16 |
| Sec ond Semester |  |  |
| PSY101 | General Psychology |  |
| WEX106 | Nutrition for Exercise and Fitness | , |
| WEX182 | Fitness M easurement \& Interpretation | 3 |
| W EX183 | Programs \& Principles of Conditioning | 3 |
| W EX184 | Sports M edicine I-Theory \& Practice |  |
|  |  | 15 |
| FLORAL DESIGN CODE CERT.FLORAL |  |  |
|  |  |  |
| First Semester |  |  |
| HRT102 | Plant and Soil Science | 4 |
| HRT115 | Floral Design | 3 |
| HRT232 | Greenhouse M anagement \& |  |
|  | Propagation | 4 |
| W RT101 | English Composition I | 3 |
| ... ... | General Education Elective* | 3 |
|  |  | 17 |
| Sec ond Semester |  |  |
| HRT119 | Floriculture | 3 |
| HRT120 | Interior Plantscaping | 3 |
| HRT234 | Commercial Floral Design \& |  |
|  | M anagement | 4 |
| HRT462 | Co-Op W ork Experience |  |
|  | (Horticulture) | 2 |
|  | Business Elective** | 3 |
| ... ... | General Education Elective* | 3 |

## FLORAL DESIGN <br> CODE CERT.FLORAL

## Sec ond Semester

FOOD SERVICE SUPERVISION
CODE CERT.FOOD.SERVICE

## First Semester

HRM 101 Introduction to Hospitality M anagement 3
HRM 102 Food Protection 3
HRM 103 Professional Food Preparation Techniques 3
HRM 202 Quantity Food Production Service 3
WRT101 English Composition I 3
... ... General Education Elective* 3 -18

Second Semester

| HRM 106 | M enu Planning \& Nutrition | 1 |
| :---: | :---: | :---: |
| HRM 108 | Computer A pplic ations for |  |
|  | Hospitality Industry | 1 |
| HRM 201 | Food and Beverage Cost Control | 1 |
| HRM 204 | Food Purchasing | 2 |
| HRM 205 | Restaurant Service M anagement | 3 |
| HRM 206 | Commercial Restaurant Operation | 3 |
| HRM 214 | Banquet \& Catering M anagement |  |
|  | or | 2 |
| HRM 215 | Food Service $M$ anagement |  |
| HRM 462 | Co-Op W ork Experience |  |
|  | (Hotel/Restuarant/Hospitality) | 2 |
|  | General Education Elective* | 3 |

## HOSPITALITY M ANAGEMENT CODE CERT.HOSP.M GMT

First Semester
HRM 101 Introduction to Hospitality M anagement 3
HRM 102 Food Protection 3
$\begin{array}{ll}\text { HRM } 103 & \text { Professional Food Preparation } \\ & \text { Techniques }\end{array}$
HRM 104 Front Office Procedures 3
HRM 108 Computer Applications for the 1
W RT101 English Composition I 3
... ... General Education Elective* 3

## Second Semester

HRM 201 Food and Beverage Cost Control 1
HRM 203 Beverage Management 2
HRM 204 Food Purchasing 2
HRM 205 Restaurant Service M anagement 3
HRM 207 Hotel Sales and Convention Planning 1
HRM 214 Banquet \& Catering M anagement 2
HRM 217 Issues in the Hospitality Industry 2
HRM 462 Co-Op W ork Experience (Hotel/Restuarant/Hospitality)2
...... General Education Elective* 3
-18

[^34][^35]
## LANDSCAPING <br> CODE CERT.LAND

## First Semester

| BUS101 | Introduction to Business | 3 |
| :--- | :--- | :---: |
| DFT107 | Drafting I | 2 |
| HRT103 | Turf and Grounds M anagement | 3 |
| HRT104 | Landscape Plants \& M aterials I | 2 |
| HRT130 | Landscape Contracting | 1 |
| HRT... | Restricted HRT Elective (see below) | $3-4$ |
| WRT101 | English Composition I | 3 |
|  |  | $-17-18$ |

## Second Semester

| INF101 | Introduction to Information Technology | 3 |
| :--- | :--- | :--- |
| HRT113 | Principles of Landscaping | 3 |
| HRT204 | Landscape Graphics \& Design | 2 |
| HRT233 | Landscape Plants \& M aterials II | 4 |
| HRT235 | Landscape Site Analysis \& Construct | 3 |
| .... | General Education Elective* | 3 |

HRT233 Landscape Plants \& M aterials II 4
Landscape Site Analysis \& Construct

## ....

General Education Elective*

OFFICE STUDIES-W ORD PROCESSING CODE CERT.OFFICE.WORD

First Semester-Summer Session
OFF101 Keyboarding I*
Sec ond Semester
BUS103 Business $M$ ath 3
OFF201 Keyboarding II* 3
OFF104 Introduction to Office Automation 3
OFF240 MicroSoft W ord for Windows 3
WRT101 English Composition I 3
..... General Education Elective** 3
-18
Third Semester
OFF103 Business Communication 3
OFF207 Administrative Office Practice 3
OFF209 WordPerfect-Comprehensive 3
OFF210 Machine Transcription 2
..... General Education Elective** 3

## Restricted HRT Electives:

HRT101 Fundamentals of Horticulture
HRT102 Plant and Soil Science
HRT112 Pests of Ornamental Plants
HRT120 Interior Plantscaping
HRT236 Horticulture M arketing and Sales
NETW ORKING AND WEB DEVELOPMENT CODE CERT.NET.W EB

## First Semester

INF101 Introduction to Information Technology 3
IN F163 Internet Concepts \& Applic ations 3
INF160 Networking Technologies 3

ART122 Two-Dimensional Design 3
WRT101 English Composition I 3
INF144 W indows NT Desktop Operations 1

## Second Semester

| INF232 | Window s NT |  |
| :--- | :--- | :--- |
|  | or | 3 |
| INF254 | Unix for the Netw ork Administrator |  |
| BUS271 | Internet Commerce | 3 |
| INF146 | Web Development Using HTM L | 3 |
| ...... | Restricted Elective (see below) | 3 |
| INF263 | Programming the Internet | 3 |
| ...... | General Education Elective* | 3 |

## Restricted Electives:

| IN F255 | Network Planning and Design |
| :--- | :--- |
| ART259 | Computer Graphics for the Web Developer |
| IN F258 | TCP/IP |
| IN F108 | PC Upgrade, M aintenance and Diagnosis |
| IN F241 | Java for Business Applications <br>  <br>  <br> (For the student who has completed INF150) |

[^36][^37]ONE YEAR CERTIFICATES

| SURGICAL TECHNOLOGY CODE CERT.SURG |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| BIO109 | Anatomy \& Physiology I | 4 |
| SUR101 | Surgical Technology I | 6 |
| SUR102 | Surgical Technology Externship I <br> 2 days or $16 \mathrm{hrs} / \mathrm{wk} \times 15 \mathrm{wks}$ | 2 |
| W RT101 | English Composition I | 3 |
| SUR103 | Surgical Terminology | 1 |
| SUR104 | M icrobiological Application in Surgery | 2 |
|  |  | 18 |
| Sec ond Semester |  |  |
| BIO209 | Anatomy \& Physiology II | 4 |
| SUR201 | Surgical Technology II | 5 |
| SUR202 | Surgical Technology Externship II 3 days or 24 hrs/wk x 15 wks | 2 |
| ..... | General Education Elective* | 3 |
|  |  | 14 |
| Summer Session |  |  |
| SUR203 Surgical Technology Externship III, 4 weeks <br> at 40 hours per week for a total of 160 hours.  <br> One credit.  |  |  |
| TRAVEL SERVICE CODE CERT.TRAVEL |  |  |
| OFF101 | Keyboarding I | 3 |
| TRV101 | Intro to Travel and Tourism | 3 |
| TRV103 | Travel Area Studies | 3 |
| TRV104 | Travel-Electronic Ticketing-SABRE | 3 |
| W RT101 | English Composition I | 3 |
|  |  | 18 |
| Sec ond Semester |  |  |
| BUS103 | Business M ath | 3 |
| BUS233 | Business Law I | 3 |
| SPE111 | Speech Communication | 3 |
| TRV204 | Travel Planning and M arketing | 3 |
| TRV205 | Travel Agency Documentation Lab | 1 |
| ...... | General Education Elective*† | 3 |
| ...... | Elective** | 2 |
|  |  | 18 |


| UNITED STATES STUDIES CODE CERT.US |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| W RT101 | English Composition I | 3 |
| SPE111 | Speech Communication | 3 |
| HIS111 | U.S. History to Reconstruction | 3 |
| POL101 | American Government | 3 |
| .... | Restricted Elective (see below) | 3 |
|  |  | -15 |
| Second Semester |  |  |
| W RT201 | English Composition II | 3 |
| LIT201 | American Literature I | 3 |
| LIT202 | American Literature II | 3 |
| HIS112 | U.S. History Since Reconstruction | 3 |
| ..... | Restricted Elective (see below) | 3 |
|  |  | -15 |
| Restricted Electives: |  |  |
| BUS101 | Introduction to Business |  |
| CRJ 101 | Introduction to Criminal J ustice |  |
| ECO101 | Macro Economics |  |
| ECO201 | Micro Economics |  |
| EDU101 | Introduction to Education |  |
| WEX101 | Dynamics of Health and Fitness |  |
| W EX201 | Aerobic Dance (Dynamics of Health \& Experience) |  |
| HIS113 | History of 20th Century U.S. to W .W .II |  |
| HIS114 | History of 20th Century U.S. Since W.W |  |
| HIS116 | Themes in U.S. History (W omen in Am |  |
| HIS117 | Themes in U.S. History (N.J. \& Bergen |  |
| HIS144 | Contemporary American Issues \& Pro |  |
| LIT215 | Black Literary Voice in America |  |
| COM 101 | M ass M edia of Communications |  |
| M US105 | A History of Jazz in America |  |
| M US110 | Music, Art and Drama |  |
| POL104 | State \& Local Government |  |
| POL106 | Themes in U.S. History (M odern Ameri | ency) |
| PHR102 | Ethics |  |
| PHR105 | Ethics in Business and Society |  |
| PSY101 | General Psychology |  |
| PSY121 | Comparative Psychology |  |
| PSY201 | Child Psychology |  |
| SOC105 | Urban Sociology |  |
| SOC120 | Sociology of Gender Roles |  |
| SOC121 | The Changing Roles of Women |  |
| SOC222 | Ethnic \& M inority Group Relations |  |
| THR101 | Introduction to Theatre |  |

*General Education Elective - see page 58
**Foreign Language for Tourists is recommended. †GE0101 Geography is recommended.

## CERTIFICATES OF ACHIEVEMENT

| ENVIRONMENTAL TECHNOLOGY CODE COA.ENV |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| $\begin{aligned} & \text { ENV108 } \\ & \text { ENV109 } \end{aligned}$ | Hazardous W aste Site Operations | 3 |
|  | Environmental Policy Compliance and Regulation | $\begin{gathered} 3 \\ -\frac{1}{6} \end{gathered}$ |
| Sec ond Semester |  |  |
| $\begin{aligned} & \text { ENV122 } \\ & \text { ENV121 } \end{aligned}$ | Environmental Chemistry | 4 |
|  | Environmental M icrobiology | 4 |
|  |  | 8 |
| GEOGRAPHICAL INFORMATION SYSTEMS (GIS) CODE COA.GIS |  |  |
| First Semester |  |  |
| TEC190 | Introduction to Geographic Informa Systems | 3 |
| TEC191 | Introduction to M apping and |  |
|  | Cartography | 3 |
|  |  | ${ }^{-}{ }^{-}$ |
| Second Semester |  |  |
| TEC293 | Advanced Geographic Information |  |
|  | Systems | 3 |
| TEC292 | Introduction to Remote Sensing | 3 |
|  |  | ${ }^{-}$ |
| MANUFACTURING DESIGN CODE.COA.M FTG.DESIGN |  |  |
| First Semester |  |  |
| Second Semester |  |  |
| M FG219 | M anufacturing Design II | 3 |
| Third Semester |  |  |
| Fourth Semester <br> M FG221 M anufacturing Design IV |  | 3 |
|  |  | 12 |

This section contains an alphabetical listing by course letter code of all courses offered at the college.

| ACC | ACCOUNTING | LAN | W ORLD LANGUAGES \& CULTURES |
| :---: | :---: | :---: | :---: |
| ALH | ALLIED HEALTH | LGL | legal assistant |
| ALP | AM ERICAN LANGUAGE PROGRAM | LIT | LITERATURE |
| ANT | ANTHROPOLOGY | MAT | M ATHEM ATICS \& COM PUTER SCIENCE |
| ART | ART | MFG | M ANUFACTURING TECHNOLOGY |
| BIO | BIOLOGICAL SCIENCES | MLT | M EDICAL LABORATORY TECHNOLOGY |
| BNF | BANKING, CREDIT \& FINANCE | MOA | M EDICAL OFFICE ASSISTANT |
| BUS | BUSINESS ADM INISTRATION | MUA | APPLIED M USIC |
| CHM | CHEM ISTRY | MUS | M USIC |
| COM | M ASS COM M Unication | NUR | NURSING |
| CRI | CRIM INALJ USTICE | OFF | OFFICE SYSTEM S TECHNOLOGY |
| DAN | DANCE | PHR | PHILOSOPHY \& RELIGION |
| DHY | DENTAL HYGIENE | PHY | PHYSICAL SCIENCE |
| DFT | DRAFTING \& DESIGN | POL | POLITICAL SCIENCE |
| DMS | ULTRASOUND/DIAGNOSTIC | PSY | PSYCHOLOGY |
|  | M EDICAL SONOGRAPHY | PTA | PHYSICAL THERAPIST ASSISTANT |
| EBS | ENGLISH BASIC SKILLS | RAD | RADIOGRAPHY |
| ECO | ECONOMICS | REA | REAL ESTATE |
| EDU | Education | RSP | RESPIRATORY THERAPY |
| ELC | ELECTRICALTECHNOLOGY | SOC | SOCIOLOGY |
| ENV | ENVIRONM ENTAL TECHNOLOGY | SPE | SPEECH COM M UNICATION |
| ESC | EARTH SCIENCE | SUR | SURGICAL TECHNOLOGY |
| GEO | GEOGRAPHY | TEC | TECHNOLOGICAL SCIENCES |
| HIS | HISTORY | THR | THEATRE |
| HRM | HOTEL/RESTAURANT/HOSPITALITY | TRV | TRAVEL \& TOURISM |
| HRT | HORTICULTURE | VET | VETERINARY TECHN OLOGY |
| INF | INFORM ATION TECHNOLOGY (formerly Data Processing) | WEX | W ELLNESS \& EXERCISE SCIENCE |
| IST | INTERDISCIPLINARY STUDIES | WRT | W RITING |

## ACC - ACCOUNTING

ACC-100 Introduction to
Accounting explores the need and use of accounting information in the business world, as well as provides an overview of accounting careers. The course is designed to give students a user' perspective of accounting and also to provide them with the necessary communication and analytical skills needed to succeed in future accounting courses.
2 lec., 2 lab., 3 credits
ACC-101 Ac counting I introduces the student to the accounting principles and accounting cycle of proprietorships. Topics considered include financial statement preparation, inventories, receivables, payables, plant assets, accruals, deferrals, accounting systems, and cash control. 2 lec., 2 lab., 3 credits

## ACC-104 Medical Accounting is

 an introduction to basic accounting procedures as they apply to a medical practice. Topics considered include cash and payroll records, patient billing and collections, and the preparation of financial statements. 2 lec., 2 lab., 3 creditsACC-107 Federal Taxation reviews the history and background of federal taxation. Students leam the tax definitions of gross income, deductions, and gains and losses, and they examine accounting methods approved by the IRS. The preparation of federal, income tax returns is also covered. 2 lec., 2 lab., 3 credits

## ACC-110 Financial Accounting is

 an introduction to the theory of accounting and the procedures necessary to produce financial statements. This course focuses on the classification, valuation and communication of financial information. An emphasis will be placed on the usefulness of financial accounting concepts.2 lec., 2 lab., 3 credits

## ACC-120 Computerized

Accounting provides the student with the skills necessary to use popular computerized accounting packages such as Quickbooks or Peachtree for W indows. The student will obtain a theoretical accounting background. The student, using basic accounting concepts, will prepare and analyze various accounting documents, reports and statements. It is recommended that this course be taken concurrently with ACC-101 Accounting I. 2 lec., 2 lab, 3 credits

## ACC-140 Federal Income Tax

Return Preparation will enable average taxpayers to complete their federal income tax retums using tax software. Topics include filing status, gross income, itemized deductions and tax credits. 2 lab., 1 credit

ACC-201 Accounting II extends the accounting principles learned in Accounting I to financial and managerial areas of corporations. Areas discussed are liabilities, statement of cash flows, financial statement analysis and interpretation, manufacturing operations, and budgeting.
2 lec., 2 lab., 3 credits
Prerequisite: ACC-101

## ACC-202 Intermediate Accounting

I is an in-depth study of accounting principles and their application to the preparation of financial statements. Students participate in a detailed study of current assets and current liabilities. The analysis and preparation of a statement of cash flows is also taught. 2 lec., 2 lab., 3 credits Prerequisite: ACC-201 or ACC-210 with a grade of C or better.

## ACC-203 Intermediate Accounting

 II is an in-depth study of accounting principles as they relate to non current assets, long-term liabilities, paidin capital, retained earnings, accounting changes, and error analysis. Earnings per share and financial statement analysis are also covered in this course. 2 lec., 2 lab., 3 credits Prerequisite: ACC-202ACC-204 Cost Accounting I will introduce the student to the process of cost analysis and will show how it can be an aid to management in decision-making. The development of standard costs and the variances of actual from standard are taught, in addition to job order and process cost systems. The cost behavior of material, labor, and manufacturing overhead is also covered.
2 lec., 2 lab., 3 credits
Prerequisite: ACC-201 or ACC-210 with a grade of C or better.

ACC-205 Cost Accounting II will continue the study of the process of cost development with an analysis of lost units and FIFO costing. The student is introduced to joint product, break-even, and gross profit analysis. Differential analysis, budgeting, inventory planning, and other cost areas are also covered in this course. 2 lec., 2 lab., 3 credits Prerequisite: ACC-204

ACC-206 Hospitality Accounting is
an introduction to basic accounting principles and procedures, which
includes the preparation of financial statements, specifically designed for the hospitality industry.
2 lec., 2 lab., 3 credits
Prerequisite: HRM-101
ACC-207 Legal Accounting is a study of accounting concepts for the legal assistant. The trust and escrow accounting reporting rules of the New $J$ ersey Supreme Court are discussed. Hourly records, billing procedures, and accounting concepts are studied as they relate to legal situations.
2 lec., 2 lab., 3 credits
Prerequisites: LGL-101, LGL-103, and LGL-203

ACC-209 Integrated Acc ounting on Microcomputers is a hands-on experience. The student will use basic general ledger softw are with spreadsheet applications, to develop the skills necessary to solve financial and managerial accounting problems in today's business environment. 2 lec., 2 lab., 3 credits Prerequisites: ACC-201 and INF-101

ACC-210 M anagerial Accounting explores accounting information as a tool used in decision making by management. Emphasis will be placed on cost behaviors as they relate to the planning, control and evaluation of a business entity. 2 lec., 2 lab., 3 credits
Prerequisite: ACC-110

## ACC-462 Co-0p W ork Experience

(Accounting) requires part-time student employment in a business organization in order to permit the student to gain know ledge of accounting practices. Co-Op job placement assistance is available through the Co-Op office.
1 lec., plus 179 minimum hours work experience distributed over the semester, 2 credits
Prerequisite: ACC-201

## ALH - ALLIED HEALTH

## ALH-100 Introduction to Health

Careers explores the health care delivery system and provides an overview of health careers. The course is designed to give the student accurate insight into the roles that the various pra ctitioners contribute to the health care delivery system. Opportunity for on campus observational experiences will be provided. 1 lec., 1 credit

A C C -A LP
ALH-463 Co-Op W ork Experience (Allied Health) is an elective for students pursuing careers in health related occupations. These work experiences may be available in health care settings such as hospitals, extended care facilities, clinics, medical or dental offices. The student will have the opportunity to utilize and broaden skills in the health care delivery system as they interact with health care professionals in a college approved work environment supervised by a faculty member. Student appointments must be approved by the Co-Op Coordinator. 1 lec., plus 180 minimum hours work experience distributed over the semester, 3 credits
Prerequisite: Satisfactory completion of one semester of an allied health certificate program or one year of an allied health degree program or by permission of the Department Head

## ALP - AMERICAN LANGUAGE PROGRAM

## ALP-004 Americ an Language Foundation: Grammar

(Part A) is a course for intemational students with little or no exposure to English. It introduces students to the most basic grammar of English with emphasis on the simplest tenses, structures, and forms.
3 lec., 3 non-degree credits
Co-requisite: ALP-005

## ALP-005 Americ an Language Foundation: Grammar

(Part B) provides students with continued work on the most basic structures of English.
3 lec., 3 non-degree credits
Co-requisite: ALP-004

## ALP-006 Americ an Language Foundations: Reading is a course

 for international students with little or no exposure to English. It provides them with instruction in pronouncing written words and understanding simple written texts. It also introduces students to the most common vocabulary of English and develops their ability to use this vocabulary in basic structures.3 lec., 3 non-degree credits
Prerequisite or Co-requisite: ALP-005

A LP-ART

ALP-007 Americ an Language Foundations: Writing is a course for international students with little or no exposure to English. It provides students with instruction in the spelling of English and in writing simple sentences using the structures and vocabulary leamed in American Language Foundation: Grammar and Reading. 3 lec., 3 non-degree credits Prerequisite or Co-requisite: ALP-005

## ALP-041 American Language I:

Grammar (Part A) introduces stu-
dents to the basic grammar of the English simple sentence, with emphasis on verb tenses.
3 lec., 3 non-degree credits
Prerequisite: ALP-005
Pre- or Co-requisites: ALP-042, ALP006, ALP-007

## ALP-042 Americ an Language I:

 Grammar (Part B) provides students with continued work on the basic grammar of the English simple sentence, with emphasis on nouns, adjectives, and adverbs.3 lec., 3 non-degree credits Prerequisite: ALP-005
Pre- or Co-requisites: ALP-041, ALP006, ALP-007

## ALP-043 American Language I:

Writing provides students with carefully guided exercises in the writing of English sentences and, occasionally, paragraphs.
3 lec., 3 non-degree credits
Prerequisites: ALP-007
Pre- or Co-requisites: ALP-042

## ALP-044 Americ an Language I:

Reading helps students with their vocabulary development and gives them practice in reading for comprehension with material up to the 1,000 word vocabulary level.
3 lec., 3 non-degree credits
Prerequisites: ALP-006
Pre- or Co-requisites: ALP-042

## ALP-045 Directed Studies in

 American Language $I$ is a course for students in the American Language Program who need intensive, supplemental instruction in grammar and writing skills. This com-puter-assisted learning program is provided on an individual, prescriptive basis. 1 lec., 1 non-degree credit Prerequisite: Pemission of the Department HeadALP-051 Americ an Language II: Grammar (Part A) continues the study of the English simple sentence begun in American Language I and introduces the compound sentence. The emphasis is on infinitives, model verbs, and adverbs, and students are introduced to dependent clauses.
3 lec., 3 non-degree credits
Pre- or Co-requisites: ALP-052, ALP043, ALP-044

## ALP-052 Americ an Language II:

 Grammar (Part B) gives students work on perfect tenses and compound sentences, provides an introduction to the passive voice and to participial forms, and continues the study of dependent clauses.3 lec., 3 non-degree credits
Pre- or Co-requisites: ALP-051, ALP043, ALP-044

## ALP-053 Americ an Language II:

Writing gives students work on both guided and free writing exercises at the paragraph level.
3 lec., 3 non-degree credits
Prerequisite: ALP-043
Pre- or Co-requisite: ALP-052

## ALP-054 Americ an Language II:

Reading emphasizes reading for content and helps students develop their inferential skills on reading material up to the 3,000 w ord vocabulary level. 3 lec., 3 non-degree credits Prerequisite: ALP-044
Pre- or Co-requisite: ALP-052

## ALP-055 Directed Studies in

 American Language II is a course for students in the American Language Program who need intensive, supplemental instruction in grammar and writing skills. This com-puter-assisted leaming program is provided on an individual, prescriptive basis. 1 lec., 1 non-degree credit Prerequisite: Permission of the Department Head
## ALP-061 Americ an Language III:

 Grammar (Part A) completes the study of the passive voice, of model verbs, and of compound sentences and begins a complete survey of dependent clauses in the English sentence. 3 lec., 3 non-degree credits Pre- or Co-requisites: ALP-062, ALP053, ALP-054ALP-062 American Language III: Grammar (Part B) completes the study of all the phrasal and clausal structures normally used in English sentences.
3 lec., 3 non-degree credits
Pre- or Co-requisites: ALP-061, ALP053, ALP-054

ALP-063 American Language III:
W riting provides students with
intensive practice in the writing of paragraphs and connecting prose beyond the paragraph.
3 lec., 3 non-degree credits
Prerequisites: ALP-053
Pre- or Co-requisite: ALP-062

## ALP-064 American Language III: Reading emphasizes reading for

 content, making inferences, distinguishing main and subordinate points, and evaluating the ideas and presentation of reading material at and beyond the 4,000 word vocabu lary level.3 lec., 3 non-degree credits
Prerequisites: ALP-054
Pre- or Co-requisite: ALP-062

## ALP-065 Directed Studies in

Americ an Language III is a course for students in the American Language Program who need intensive, supplemental instruction in grammar and writing skills. This computer assisted learning program is provided on an individual, prescriptive basis.
1 lec., 1 non-degree credit
Prerequisite: Permission of the Department Head

## ANT - ANTHROPOLOGY

ANT-101 Cultural Anthropology is a comparative study of human cultures. Attention is given to the various ways in which people cope with their natural settings and their social environments and to the ways in which customs are learned and handed down from one generation to the next. Topics of discussion include the family, social change, religion and magic, economic and political systems, the arts, and urban anthropology. 3 lec., 3 credits
IGeneral Education Course
Diversity Course

## ART - ART

ART-101 Art Appreciation is an introduction to the visual arts. The meaning of form and imagery in architecture, sculpture, painting, and other media are examined. The course offers opportunities for creative activities. 3 lec., 3 credits IGeneral Education Course

ART-102 Art History through the Renaissance is a study of major works of art from prehistoric times through the Renaissance. Students analyze artistic styles and examine the relationships between art, history, and culture. 3 lec., 3 credits IGeneral Education Course

ART-103 Art History since the Renaissance is a study of major works of art produced during the modern era. Students analyze postRenaissance artistic styles and examine the relationships betw een art, history, and culture. 3 lec., 3 credits IGeneral Education Course

ART-104 20th Century Art is a class recommended for both fine and commercial artists as well as the general public interested in how art evolved into the contemporary, experimental forms of expression. Topics to be covered include: The Fauves and Expressionism, Cubism and Abstract Art, Constructivism, Dada and Surrealism, Abstract Expressionism, Op and Pop Art, Earth Art and Site Art, Conceptual and Performance Art. 3 lec., 3 credits

## ART-105 History of Animation

focuses on the history and development of animation as an art form, with particular attention to works of significant innovation and expression. Topics include: the earliest cinematic practices; the first animated films, 1898-1928; sociological trends such as censorship and blacklisting of American animators; J apanese animation; the commerce of anima tion, including discussion of the studio system; involvement of the avant-garde with animation; animation from Europe; and the development of computer animation techniques. 3 lec., 3 credits

## ART-122 Tw 0-Dimensional

Design is an introduction to the studio skills, concepts, and language applicable to the problems of twodimensional design as related to the visual arts. 2 lec., 2 lab., 3 credits

ART-123 Life Draw ing I is an intensive study of the anatomy and structure of the human figure as rendered in pencil, brush, charcoal, and ink. Emphasis is placed upon line perspective, form, value, and space relationships. 2 lec., 2 lab., 3 credits

ART-124 Draw ing Fundamentals
teaches free and schematic drawing skills necessary for advanced studio applications in the visual arts. 2 lec., 2 lab., 3 credits

## *ART-126 Introduction to

 Computer Graphics for the Visual Arts, is a class in the use of the computer as a visual tool. Emphasis is placed on creative visual output. No know ledge of mathematics or programming is required.2 lec., 2 lab., 3 credits

## ART-130 Color: Theory and

Design is an intensive study of the nature of color, color harmony, and the psychological effects of color. The applications of color theory in the fine and commercial arts is explored. 2 lec., 2 lab., 3 credits
$\dagger$ ART-140 M aterials and M ethods introduces the basic processes and products common to visual arts studio work. Course work emphasizes a broad range hands-on study, as well as historical survey, of materials, methods, tools, techniques, and imaging. Student projects include explorations in selected techniques in a variety of media, with related class discussion aimed at introducing various professional art career opportunities and options.
1 lec., 2 lab., 2 credits (Not offered during 2000-2001)

ART-181 Photography I introduces camera handling and basic b \& w darkroom techniques. Studies include camera operations, principles of exposures, basic understanding of light, film development, printing, picture content and compositional design. Technical and aesthetic possibilities of photography are explored through hands-on visual shooting assignments, photo exhibitions, slide presentations and critiques. A 35 mm SLR camera with manual override is required.
2 lec., 2 lab., 3 credits
$\dagger$ ART-222 Three-Dimensional Design builds upon the skills and concepts learned in TwoDimensional Design and provides students with the opportunity for work on the problems of threedimensional design.
2 lec., 2 lab., 3 credits
Prerequisite: ART-122
(Not offered during 2000-2001)
ART-223 Life Draw ing II further advances the study of the human figure by refining the studio skills and ideas explored in Life Drawing I. 2 lec., 2 lab., 3 credits
Prerequisite: ART-123

ART-226 Letterform and Type is
the study of typographic design, history, and function.
2 lec., 2 lab., 3 credits
Prerequisites: ART-122, ART-126
ART-227 Painting I is an introduction to oil, acrylic, watercolor, and mixed media painting techniques. Students work with plastic form and color to develop the artistic image. 2 lec., 2 lab., 3 credits
Prerequisites: ART-122, and either ART-123 or ART-124

ART-228 Painting II engages the student in the solving of painting problems. The course includes analysis of traditional and contemporary styles of painting.
2 lec., 2 lab., 3 credits
Prerequisite: ART-227

## $\dagger$ ART-236 Introduction to

Printmaking explores a variety of printmaking techniques, using stencil, linocuts, silkscreen, etching, and woodcuts. 2 lec., 2 lab., 3 credits
Prerequisites: ART-122; and either ART-123 or ART-124
(Not offered during 2000-2001)
$\dagger$ ART-255 Basic Sculpture I introduces the student to the concepts of sculpture through projects using tra ditional materials and techniques. 2 lec., 2 lab., 3 credits Prerequisites: ART-122; and either ART-123 or ART-124
(Not offered during 2000-2001)

## $\dagger$ ART-256 Basic Sculpture II

extends the study of sculpture to the use of media such as plaster, wood, metal, and synthetics.
2 lec., 2 lab., 3 credits
Prerequisite: ART-255
(N ot offered during 2000-2001)

## ART-259 Computer Graphics for

 the W eb Developer is an introduction to select softw are packages that increase a W eb developer's ability to refine electronic images and text. Areas covered include aesthetic application; creating graphics using basic bitmap editing and vector based illustration; optimizing graphics in J PEG and GIF formats; using fonts; working with animations and video for the Web utilizing GIF,Quicktime and Flash animations; and trouble shooting technical problems. 2 lec., 2 lab., 3 credits Prerequisite: ART122 Co-requisite: IN F146 and basic understanding of $W$ indows

ART-260 Graphic Design I enables students to develop proficiency in the graphic communication processes. Emphasis is on creative design solutions for commercial art problems. Students apply their knowledge in preparing graphics for publication and sales promotion. 2 lec., 2 lab., 3 credits Prerequisites: ART-226, and either ART-289 or ART-297

ART-261 Graphic Design II is a continuation of the problem solving approach to design previously explored in Graphic Design I. 2 lec., 2 lab., 3 credits
Prerequisites: ART-260, A RT-287

## $\dagger$ ART-262 Graphic Design III

engages students in studio work involving the design of printed advertising literature and other materials. Emphasis is placed upon the development of aesthetically pleasing design, copy, mechanical, and overlay materials. 2 lec., 2 lab., 3 credits Prerequisites: ART-261
(Not offered during 2000-2001)
$\dagger$ ART-266 Illustration I as an applied art, functions to inform, educate, and communicate ideas using appropriate techniques/media that best reflects the client's needs. Students are introduced to and do projects in the major categories of illustration: advertising, editorial (newspapers/magazines) and book decorative/interpretive/informative); and medical/scientific/technical. Topics include b/w and color, rendering styles, printing and production methods, formats, terminology for print media advertising, and career specialization areas.
2 lec., 2 lab., 3 credits
Prerequisites: ART-122, ART-123 or
ART-124, and ART-130
Co-requisite: ART-140
(N ot offered during 2000-2001)
$\dagger$ ART-267 Illustration II continues the study of the principles of design and composition that was begun in AR-266. Special uses of color and pictorial elements are considered.
Students experiment with a variety of media and analyze types of contemporary illustration. 2 lec., 2 lab., 3 credits Prerequisites: ART-140 and ART-266 (Not offered during 2000-2001)

ART-271 Portfolio Presentation is a
class in the selection, arrangement and presentation of visual communication material. From designing a how to get your foot in the door resume/cover letter to a how-to in visual arts business practices. This class is a must for free-lancers and transfer/graduate aspirants alike. Includes: current portfolio and presentation types, interview techniques, writing resume and cover letters, how artw ork is priced, business and legal practices for commissioned artw ork, employment issues, salaries and free-lance prices.
1 lec., 2 lab., 2 credits
Prerequisite: M inimum of 18 credits selected from ART 181 and all 200level ART courses

## $\dagger$ ART-275 Advertising Illustration

integrates illustration into a layout with headings, copy, and the client's name and is primarily designed to arouse consumer interest in the market place (direct/indirect/institutional). A variety of prescribed formats and techniques are used to create visually stimulating ads for products/services/information. Projects include products (catalogue covers, brochures, albums, TV events), fashion (reporting and advertising), and travel (spot, figurative, landscape, architectural). 2 lec., 2 lab., 3 credits
Prerequisite: ART-266
(Not offered during 2000-2001)

## $\dagger$ ART-276 Editorial and Book

 Illustration is used in magazines, new spapers, and stories/articles which are targeted to particular audiences. It combines the content and structure of the article/story / book with the appropriate illustration technique that best reflects the text and essential meaning of the piece. Projects include book educational/technical/fictional /non-fictional/ poetry/children interests) and magazine (fashion/fiction/food/feature); newspaper (news/business/sports/family) and editorial caricature and cartoons. 2 lec., 2 lab., 3 credits Prerequisite: ART-266
(Not offered during 2000-2001)

## M acintosh computers are used in these courses.

ART-BIO
$\dagger$ ART-277 Medical, Scientific \& Technical Illustration is the graphic representation of subject matter to specifically communicate know ledge. It primarily clarifies, simplifies, and edits information targeted for a consumer/biomedical/technical audience and requires a high degree of realism, accuracy and neatness. Projects include medical (pharmaceutical, product, spot), scientific (textbooks and journals), and technical (architectural, industrial and product).
2 lec., 2 lab., 3 credits
Prerequisite: ART-266
(Not offered during 2000-2001)
ART-281 Photography II refines and further explores techniques and ideas presented in Photography I. Emphasis is on the relationship betw een exposure, film development and the finished print. Course work focuses on enhanced darkroom skills and experimentation with toners, different photographic papers, advanced lighting situations, and exposure techniques. A 35 mm SLR camera with manual override is required.
2 lec., 2 lab., 3 credits
Prerequisite: ART-181

## $\dagger$ ART-282 Color Photography

 explores the fundamentals of color theory and color technique application, including the expressive possibilities of color. Students utilize both studio and natural light to demonstrate the full color spectrum of light. Course work includes shooting color negatives and producing color prints with state-of-the-art enlargers, analyzers, and processors. A 35 mm SLR camera with manual overide is required. 2 lec., 2 lab., 3 credits Prerequisite: ART-281(Not offered during 2000-2001)

## †ART-283 Studio Photography

explores studio lighting and shooting utilizing tungsten lights, strobes, umbrellas, reflectors, and other accessories. Color theory, balance, and correction are emphasized. Large format view cameras are introduced. Course work includes pre and postproduction skills of propping, hiring talent, meeting deadlines, retouching, computer manipulation, and final presentation, as well as business practices for operating a successful commercial photography studio.
3 lec., 3 credits
Prerequisite: ART-281
(Not offered during 2000-2001)
$\dagger$ ART-285 Advanced Darkroom
Techniques investigates the interrelationships of subject matter, concept and technical decisions. Students experiment with various technical and aesthetic approaches, including printing format and style, scale sequencing and final presentation options. Basic color principles and printing are included in both studio and outdoor situations. Course work includes a self-directed project. A 35 mm SLR camera with manual override is required.
2 lec., 2 lab., 3 credits
Prerequisite: ART-281
(Not offered during 2000-2001)
*ART-287 Computer Layout I is a course designed for students knowledgeable in typography wishing to expand their skills in a hands-on creative manner. Students design and set type for advertising, publishing and corporate business problems. 2 lec., 2 lab., 3 credits Prerequisite: ART-226
*ART-288 Computer Layout II is a course which trains persons familiar with traditional layout procedures in the computer and its applications. This advanced class stresses the combining of computer-set type with visuals for brochures, magazines, newspapers and other media. 2 lec., 2 lab., 3 credits Prerequisite: ART-287, ART-289, ART-297

## *ART-289 Computer 2D

Illustration explores the essential techniques for creating tw o-dimensional illustrations, logos and charts using the drawing tools and functions. This course emphasizes the basic operations and functions of object-oriented computer graphics using both spot and process color on the computer.
2 lec., 2 lab., 3 credits
Prerequisite: ART-122, ART-126

## **ART-290 Computer 2D

Animation I introduces the fundamental skills and concepts of 2D computer animation, motion graphics, and digital video. The focus is twofold: technical and aesthetic. Technical study is comprehensive, from operating systems and softw are interface, to audio/ video capture, to special effects, editing, and output. Aesthetic issues emphasize innovative approaches to sequential organization of thematic materials. 2 lec., 2 lab., 3 credits Prerequisites: ART-289, ART-297
**ART-291 Computer 2D
Animation II follows ART 290 as an advanced level studio experience in computer animation design and production. Technical and aesthetic issues in masking, keyframing, interlacing, and compression are explored. Students learn to incorporate illustrations, photographs, video, and audio into their animations, as works progress from storyboard to completion. For students familiar with 3D animation techniques explored in ART-292 and/or ART 293, the possibilities for incorporating 3D animations into their projects also exist. 2 lec., 2 lab., 3 credits Prerequisite: ART-290, ART289, ART297

## **ART-292 Computer 3D

Animation I concentrates on the use of state-of the-art 3D animation software. Students become familiar with animation in a $3 D$ environment using proper lighting, camera set-up, design and rendering capabilities. Recording peripherals are also introduced. Class discussion and direct application of techniques focus on the use of desktop animation workstations in today's working environment.. 2 lec., 2 lab., 3 credits Prerequisite: ART-122, ART-126
**ART-293 Computer 3D
Animation II continues the study of state-of-the art 3D animation, while concentrating on advanced technique and the integration of other computer graphic hardware/software in producing student work. Course work emphasizes the development of realistic and/or stylized visuals, as well as eye-catching special effects. Demo reels and business practices are included in the class work and discussion. 2 lec., 2 lab., 3 credits Prerequisite: ART-292

## *ART-297 Computer Imaging

teaches the basic principles of digital image processing and manipulation, including scanning, editing, color correction, color separations, special effects and transformation techniques. This course emphasizes the methods used to scan images from photographs, to retouch and alter these images, and to create bitmapped illustrations.
2 lec., 2 lab., 3 credits
Prerequisite: ART-122, ART-126
$\dagger$ (Not offered during 2000-2001) * M acintosh computers are used in these courses.
Intergraph NT computers are used in these courses.
*ART-298 Presentation Graphics
teaches the principles of building illustrations into time-based computer visuals with sound.
2 lec., 2 lab., 3 credits
Prerequisite: ART-297

## ART-462-463 Co-Op W ork

 Experience (Commercial Art) places students as assistants in commercial art establishments. Students must work a minimum number of hours for the semester and will also attend a weekly onehour seminar at BCC. Student's work experiences are supervised by BCC faculty members. Co-Op job-placement assistance is available through the Co-Op office.ART-462 1 lec., plus 120 minimum hours work experience distributed over the semester, 2 credits Prerequisite: ART-260
ART-463 1 lec., plus 180 minimum hours work experience distributed over the semester, 3 credits
Prerequisite: ART-260

## BIO-BIOLOGICAL SCIENCES

BIO-101 General Biology I is the first course in a two semester sequence in general biology. It is designed to explain the fundamental principles of biology and to promote an aw areness of their significance to society. Lecture topics include: Introduction to biology, review of basic chemistry, cell biology, genetics, and a survey of Kingdoms M onera, Protista, and Fungi. Laboratory exercises develop proficiency in the use of laboratory equipment and guide students in investigations of cell biology, genetics, and microbiology.
3 lec., 3 lab., 4 credits
IGeneral Education Course
BIO-103 The Human Body is a one-semester course that is concerned with basic chemistry, the human cell, tissues, and the muscul loskeletal, nervous, endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary and reproductive systems. The course includes a survey of metabolism and fluid/electrolyte balance. Lectures are supplemented by writing assignments and discussions. Laboratory exercises iinclude microscopy, dissection, and anatomical and physiological experiments that complement the lecture.
3 lec., 3 lab., 4 credits
IGeneral Education Course

BIO-104 M ic robiology is a laboratory science course that emphasizes the principles of biology as they apply to microorganisms. The morphology, anatomy, physiology, growth, metabolism, nutrition, control, and identification of the various microbes, genetics including recombination technology, industrial and clinical case studies in microbiology are discussed. Representative laboratory exercises include staining procedures, media preparation, pure culture techniques, culture identification, and serology. 3 lec., 3 lab., 4 credits IGeneral Education Course

BIO-106 Field Studies in Biology is designed to introduce students, in an outdoor setting, to the diversity of living organisms and to the environments in which they exist. Field trips include the New J ersey Pine Barrens, Catskills, swamps, marshes and bogs, Harriman State Park, W aywayanda State Park, Norvin Green State Forest and numerous short trips. Emphasis is on basic taxonomic principles for identifying the local flora and fauna. 2 lec., 3 lab., 3 credits. (Offered only in Summer Session II)

## BIO-107 Introduction to Human

Biology is a one-semester course on basic human anatomy and physiology focusing on present-day biological issues including cancer, heart disease, AIDS, nutrition and emerging infectious diseases. Laboratory exercises include various experiments that deal with the human body and case studies, which will foster a fundamental understanding of wellness and disease states. 3 lec., 3 lab., 4 credits
IGeneral Education Course

## BIO-108 Introduction to

 Environmental Biology deals with humans and their interactions with the environment. Topics covered include fundamental aquatic and terrestrial ecology, air and water pollution, world population problems, loss of bioversity, pesticides, solid waste problems and an extensive review of energy problems and their solutions. Laboratories include measurements of various environmental pollutants, analyses of environmental parameters and descriptive and practical reinforcement of lecture material. 3 lec., 3 lab., 4 creditsIGeneral Education Course

BIO-109 Anatomy and Physiology I is an introduction to the basic principles of human anatomy and physiology that emphasizes some common diseases in relation to the various body systems. Among the topics considered are the basic plan of the body, tissues, the skeletal system, the muscular system, articulations, cardiovascular system, and the respiratory system. Lectures are supplemented by writing assignments, discussion, and laboratory sessions that include dissection and elementary physiology experiments. 3 lec., 3 lab., 4 credits IGeneral Education Course

BIO-115 Vertebrate Anatomy and Physiology I focuses on the structures and functions of vertebrate organ systems, with primary emphasis on mammals. After a brief overview of vertebrate development and evolutionary history, the major portion of the course reviews each system, across all principal groups. Study of basic cellular biology and of skeletal, muscle, and nervous systems is included. Normal homeostatic mechanisms and pathophysiological condidtions are emphasized, as well as the interrelationships of organs and organ systems. Dissection is required. 3 lec., 3 lab., 4 credits

## BIO-119 Intensive Wolf Study

 deals with an organism that represents the conflicts betw een humans and wildlife management issues. Taught at the International W olf Center in Ely, M innesota during the W inter semester break, students will study captive wolves as well as wolves in their natural habitat. Lecture topics include the biology and ecology of the gray wolf, Canis lupus. Afternoon and evening sessions involve field work and independent study. 45 hours, 3 creditsBIO-131 General Botany is an introduction to the biology of plants. The course includes an analysis of plant structure and function, an explanation of the principles of plant genetics, an exploration of plant evolution, and an examination of plant ecology. The importance of plants to people will be illustrated through discussions of peoples ecological and economic dependence upon plants. The course content will be presented through lectures, demonstrations, and laboratory exercises. 3 lec., 3 lab., 4 credits IGeneral Education Course

## BIO-137 Ec ology of the North

Woods is taught during Summer Session I at the International W olf Center in Ely, M innesota. It is designed to expose the student to the unique environment of the North Woods, where the boreal forest intergrades with the temperate deciduous forest. Both the abiotic and biotic components of this ecosystem will be taught during five intensive days in the North Woods. Emphasis will be on the flora and fauna of the ecosystem, both in formal lecture and in extensive field work. 45 hours, 3 credits

## BIO-201 Comparative Anatomy is

a study of the body structures of some representative vertebrate animals and of their functional and evolutionary relationships. Laboratory exercises include detailed dissection of the lamprey eel, the dogfish, the mudpuppy, the cat, and other animals. 3 lec., 3 lab., 4 credits Prerequisite: A ny college-level Biology course.

BIO-202 Embryology is the study of vertebrate embryonic development from gametogenesis and fertilization to the development of the body organs. Laboratory exercises include experiments with living sea urchins, J apanese madeka fish, frogs, and chick embryos, as well as microscopic examination of the various sections of the embryos.
3 lec., 3 lab., 4 credits
Prerequisite: Any college-level Biology course.

BIO-203 General Biology II is the second course of a two-semester sequence of general biology. This course explores the diversity of the plant and animal kingdoms and provides an understanding of their evolution. Major aspects of the structure, function, and life cycles of representative organisms are explained. The students will examine the complexity of roots, stems, and leaves, analyze reproduction in flow ering plants, and investigate the biology of invertebrate and vertebrate animals. Laboratory exercises are provided to complement the lectures. 3 lec., 3 lab., 4 credits Prerequisite: BIO-101
IGeneral Education Course

B IO-209 Anatomy and Physiology
II continues the study of human anatomy and physiology. Among the topics considered are the digestive system, metabolism, urinary system, fluid and electrolyte balance, the nervous system, the endocrine system, and the reproductive system. Lectures are supplemented by writing assignments, discussion and laboratory sessions that include dissection and elementary physiology experiments.
3 lec., 3 lab., 4 credits
Prerequisite: BIO-109
IGeneral Education Course

## BIO-215 Vertebrate Anatomy and

Physiology II is a continuation of Vertebrate A natomy and Physiology I. The endocrine, circulatory, respiratory, renal, reproductive and digestive systems will be studied. Normal homeostatic mechanisms and pathophysiological conditions are emphasized, as well as the interrelationships of organs and organ systems. Dissection is required as part of the laboratory syllabus. 3 lec., 3 lab., 4 credits Prerequisite: BIO-115

## BIO-227 Principles of Ecology

deals with terrestrial and aquatic ecology. Topics covered include abiotic characteristics of ecosystems as well as detailed discussions of populations, communities, ecosystems and biomes. Discussions also include such topics as ecological succession and paleoecology. Qualitative and quantitative data of ecosystems is gathered during the early part of the semester in which ecological data will be collected during field experiences. These data will be analyzed during the second half of the semester in the laboratory. Statistical analyses and report writing will also be stressed.
3 lec., 3 lab., 4 credits
Prerequisites: BIO-101, BIO-203

## BIO-228 Introduction to Marine

Biology deals with a basic introduction to marine environments, emphasizing ecological principles governing marine life throughout the world. Topics include basic oceanography, marine ecological systems, planktonic communities, deep-sea biology, subtidal and intertidal ecology, estuarine and coral reef communities, human impact, mariculture and pollution. Lab sessions will include in-house lab exercises, field experiences, analysis of data, group projects and report writing. 3 lec., 3 lab., 4 credits Prerequisites: BIO-101, BIO-203

BIO-229 Tropical Marine Ecology deals with characteristics of populations, communities, and ecosystems found in tropical regions. Taught at the Keys M arine Laboratory in Long Key, Florida, during the spring semester break, students study coral reef structure and ecology, the intertidal zone, mangrove and terrestial communities, interstitial organisms, and trophic relationships. Lab sessions include field experiences, group projects and report writing.
45 hours, 3 credits
Prerequisites: BIO-101, BIO-201

## BIO-240 Bio-Medical

Tec hnologies: Issues \& Impacts examines the effect of the new technologies in Biology and M edicine upon society. Issues such as genetic engineering, abortion, in-vitro fertilization and euthanasia will be analyzed from the biological, technical, moral and political perspectives. Through class discussions and the use of case studies, students will confront the questions raised by the new technologies and assess their impact upon individuals and upon society. 3 lec., 3 credits
Prerequisite: W RT-101

## BNF - BANKING, CREDIT \& FINANCE

BNF-101 Principles of Bank Operations presents the fundamentals of bank functions in a descriptive fashion so that the beginning banker may acquire a broad and operational perspective. 3 lec., 3 credits

## BNF-102 Personal Finance and

 M oney Management is a 30 halfhour cable TV course that provides the student with the practical knowhow of an investment counselor. Topics discussed include basics of budgeting and buying; the intricacies of home ownership, income tax, and investment; and the wise use of insurance, wills, and trusts. 3 credits
## BNF-201 Principles of Finance

 provides the beginning student with an aw areness and a basic conceptual understanding of financial theory and practice. Topics considered include financial analysis and control, working capital management, capital budgeting, long term financing, financial leverage, and financial ratios.3 lec., 3 credits
Prerequisite: ACC-101, BUS-10I, or by permission of the Department Head

## BNF-204 Trust Functions and

 Services presents a complete picture of the services rendered by institutions engaged in the trust business. It provides an introduction to the services and duties involved in trust operations, with an emphasis on the business and legal aspects of the trust function. 3 lec., 3 credits Prerequisite: BNF-101
## BNF-205 Credit and Collection

 Principles I is an introduction to the importance of credit in business and presents the basic principles of credit. Emphasis is placed on the general uses made of credit and the critical need of the business w orld for credit. 3 lec., 3 creditsPrerequisite: BUS-101

## BNF-206 Credit and Collection

 Principles II considers the use of financial statements, financial ratios, and the balance sheet rela tionships related to the making of credit decisions. Policies and procedures for handling collections are studied. Other topics such as bankruptcy, factors, finance companies, and banks are studied.3 lec., 3 credits
Prerequisite: BNF-205

## BNF-207 Principles of Investment and Portfolio

M anagement examines investment instruments, the investment process and markets and investment strategies. Students will explore the characteristics of stocks, bonds, options, futures, and other investment vehicles. Portfolio theory will be studied. 3 lec., 3 credits
Prerequisite: BUS-101 and ACC-101, or by permission of the Department Head

BNF-462 Co-Op W ork Experience (Banking, Credit and Finance) is a recommended elective for all students who are pursuing an Associate in Applied Science degree in the Banking, Credit and Finance curriculum. It is designed to provide practical banking and/or credit management experience in a collegeapproved work environment. All job situations are monitored by the college for their conformity to established guidelines for such courses. J ob placement assistance is available through the Co-Op Office.
1 lec; plus 120 minimum hours work experience distributed over the semester, 2 credits.
Prerequisites: BNF-101 or by permission of the Department Head

## BUS - BUSINESS ADMINISTRATION

BUS-101 Introduction to Business is a study of the activities that make up the field of business. Some of the topics covered are the ow nership, organization, and management of business; finance; marketing; unions; and government regulations.
3 lec., 3 credits

## BUS-103 Business Mathematics

 provides a background in the principles and problems related to banking, interest, depreciation, and the pricing of merchandise. Attention is also given to commercial paper, con sumer credit, and various taxes. 3 lec., 3 creditsPrerequisite: M AT-011, or equivalent by an appropriate placement as a result of the New J ersey College Basic Skills Placement Test (computational sections only), or by permission of the Department Head

## BUS-170 Small Business

Management introduces the student to the basic knowledge and skills necessary for managing or ow ning a small business. Topics include getting started, planning and managerial skills, inventory, finance, risk management, marketing, taxation, and community responsibility. Students will analyze a variety of cases.
3 lec., 3 credits
B US-201 Marketing Principles is a study of all the decision variables facing marketing managers of all goods or services. Product, pricing, promotion, and distribution problems are studied in the context of the commodity, functional, institutional, and environmental aspects of the marketplace. This course takes a managerial approach to the study of marketing. 3 lec., 3 credits
Prerequisite: BUS-101

## BUS-202 International Marketing

 introduces the student to the global marketing environment and to the diverse factors which shape it. Topics of discussion include product, pricing, promotion, and distribution decisions as they relate to the international marketplace for goods and services. 3 lec., 3 creditsPrerequisite: BUS-101 or by permission of the Department Head

B US-204 Principles of
Salesmanship is a study of current theories and practices for salespersons of both consumer and industrial goods. Topics covered include evaluation of customer needs, importance of product data, buying motives, and the development of sales presentations. Personal qualifications of the salesperson and career opportunities are also examined. 3 lec., 3 credits Prerequisite: BUS-101

BUS-205 Entrepreneurship is an overview of the concepts and principles of business development and management. The use of case study analysis facilitates practical understanding and appreciation of business concepts. In addition, students gain further practical knowledge through the use of the Intemet. The course provides a comprehensive perspective of ownership and a management of a small business or new venture. 3 lec., 3 credits
Prerequisite: BUS-101 or at least oneyear business experience.

## BUS-207 Principles of Business

 Management is an introduction to the process through which a cooperative business group coordinates the activities of people to reach a common objective. These activities include planning, organizing, staffing, leading, and controlling, and involve the effective utilization of the economic resources of land, labor, capital, and entrepreneurship.3 lec., 3 credits
Prerequisite: BUS-101

## BUS-208 Human Resources

M anagement examines procedures to be followed in supervising workers under applicable legal and contractual agreements. Techniques of hiring, training, evaluation, promotion, remedial action, and dismissal are examined. Special attention is devoted to relations with unions. Case studies are emphasized, and student participation is encouraged through role playing, visual aides, and personal projects. 3 lec., 3 credits Prerequisite: BUS-101 or by permission of the Department Head

## BUS-209 Purchasing and

 M aterials Management provides an overview of the functions and fundamentals of purchasing and materials management. Among the topics to be covered are specifications and standardization, sources of supply, negotiations, quality control, inventory management, traffic, receiving, storage, and other requirements of the Certified Purchasing M anagement Association. 3 lec., 3 credits Prerequisite: BUS-101 or by permission of the Department HeadBUS-233 Business Law I is a survey of the law as it applies to business. It covers the law of contracts, torts, crimes, and commercial paper and analyzes the New J ersey Court System. 3 lec., 3 credits
Prerequisite: BUS-101
B US-234 Business Law II continues the survey of business law and covers sales, consumers rights, bailments, insurance, partnerships, and corporations. 3 lec., 3 credits
Prerequisite: BUS-233
BUS-250 Advertising is designed to give the student a broad view of advertising principles and their relationship to product marketing. The student will select and use different media, conduct market research, write copy and prepare advertising layouts. An advertising campaign will be completed as a term project. 3 lec., 3 credits
Prerequisite: BUS-201

## BUS-262 Fundamentals of

 International Business is designed to familiarize the student with the institutional and practical aspects of international business. Principal topics include global business environments, strategies for international management, marketing, finance, and relevant legal and political considerations.3 lec., 3 credits
Prerequisite: BUS-101 or by permission of the Department Head

## BUS-263 International Trade

 Documentation and Transportation provides the student with an understanding of the terminology and mechanics of the movement of goods from one country to another. Among the topics covered are selling terms and conditions, in land documentation to port of exit, foreign documentation, and ocean and air transportation strategies. 3 lec., 3 creditsPrerequisite: BUS-101 or by permission of the Department Head

BUS-264 International Finance and
Insurance provides students with an understanding of intemational financial transactions. Topics covered include balance of payment problems with their attendant trade barriers and restrictions, methods of payment and their inherent risks, and strategies to optimize export financing and foreign capital investment yields.
3 lec., 3 credits
Prerequisite: BUS-101 or by permission of the Department Head

## BUS-265 Food Marketing and

 Merchandising provides and introduction of the food industry. Topics include the structure of the food industry, product and service categories, and regulations affecting food merchandising. Students will be introduced to store layout, buying and price management, advertising and promotion, profitability, and potential career options. 3 lec., 3 creditsPrerequisite: BUS-201

## BUS-266 Sanitation and Regulatory Issues and Problems In Food

 Industry M anagement provides techniques and procedures for employing hygienic practice in the foodservice industry. Topics include food sanitation and microbiology, food spoilage and foodbome illnesses, and education and sanitation for foodservice personnel. Government regulations as they pertain to the food industry are discussed throughout the course. 3 lec., 3 credits Prerequisite: BUS-265
## BUS-267 Food Distribution, Sales

 and Production focuses on the structure and formulation of the channels of distribution, sales strategies, and marketing logistics in the food industry. Customer service, logistical costs, system planning and management are all analyzed. Topics also include transportation, warehouse operations, sales management and the application of information systems. 3 lec., 3 credits Prerequisite: BUS-265
## BUS-268 Strategic Issues and

 Problems in Food Industry M anagement discusses the strategic basic aspects of food marketing and management. As the capstone course draws upon a variety of business administration fields to include management and marketing. 3 lec., 3 creditsPrerequisites: BUS-265, BUS-266, and BUS-267

BUS-271 Internet Commerce will explore how small and large business use the Internet to increase or create their market presence. Students will design and develop a prototype of an electronic enterprise suitable for the World Wide Web. 3 lec., 3 credits Prerequisite: INF-162 or by permission of the Department Head

## BUS-463 Co-Op Work Experience

 (Business Administration) provides the student with practical, supervised experience in various areas of business, management, marketing, or international business. Through on the-job experience, students acquire some of the practical expertise and knowledge needed to pursue a career in these fields. Students are supervised by a faculty member and job placement assistance is available through the Co Op Office. 1 lec., plus 225 minimum hours work experience distributed over the semester, 3 creditsPrerequisite: BUS-201 or BUS-202 or BUS-207 or BUS-208

## BUS-473 Co-Op W ork Experience (Food M arketing)

 enables the student to learn and practice food marketing skills under professional guidance in a college approved work environment. The student's work is supervised by a trained faculty member. Students must w ork a minimum number of hours for the semester and attend the weekly seminar.1 lec., plus 180 minimum hours work experience, 3 credits
Prerequisite or Co-requisite: BUS268

## BUS-474 Co-Op W ork Experience (Food Marketing)

 enables the student to learn and practice food marketing skills under professional guidance in a college approved work environment. The student's work is supervised by a trained faculty member. Students must w ork a minimum number of hours for the semester and attend a weekly seminar.1 lec., plus 240 minimum hours work experience, 4 credits
Prerequisite or Co-requisite: BUS268

CHM - CHEMISTRY

## CHM-100 Introduction to

Chemistry is designed to give nonscience majors an aw areness and an understanding of the fundamental concepts of modern chemistry. Topics covered include measurement, atomic theory, chemical bonding, the periodic table, chemical reactions, and stoichiometry. The course includes a writing and communications requirement that relates the topics covered to a broad historical, social, and cultural context. 3 lec., 3 lab., 4 credits
Prerequisite: M AT-011 or a passing score on the New J ersey Basic Skills Placement Test (Computational Sections Only).
IGeneral Education Course
CHM-110 Basic Biochemistry is a course for Dental Hygiene students. Principles of atomic theory, chemical bonding, and chemical reactions are studied with an emphasis on acids and bases. The structure and function of the major groups of organic compounds are studied in order to provide a basis for understanding the nature and role of the major classes of biochemical compounds such as carbohydrates and proteins. The study of enzymes is also included. This course does not substitute for CHM-112. 3 lec., 3 lab., 4 credits Prerequisite: M AT-011 or equivalent by appropriate placement as a result of the NJ Basic Skills Placement Test (Computational sections only) Recommended Prerequisite: CHM-100 or a recent college-prep high school chemistry course.

CHM-112 College Chemistry is a survey of the fundamentals of inorganic chemistry, organic chemistry, and biochemistry. Topics in inorganic chemistry include atomic theory, chemical bonding, chemical reactions, nomenclature, gas laws, and acidbase buffers. The structure and function of the major classes of organic compounds are studied. Topics in biochemistry include proteins, carbohydrates, lipids, nucleic acids, and enzymes. The course includes a writing and communications requirement that relates the topics covered to a broad historical, social, and cultural context. 3 lec., 3 lab., 4 credits Prerequisites: M AT-011 or equivalent by appropriate placement as a result of the $N$ J Basic Skills Placement Test (Computational sections only).
Recommended Prerequisite: CHM-100 or a recent college-prep high school chemistry course.
IGeneral Education Course

C H M -COM
CHM-140 General Chemistry I is a study of the fundamental laws and theories of chemistry. Topics covered include units of measurement, dimensional analysis, stoichiometry, aqueous reactions, thermochemistry, electronic structure of the atom, periodicity, chemical bonding, molecular geometry and properties of gases.
3 lec., 3 credits
Prerequisite: M AT-032 or M AT-035 or equivalent by an appropriate placement as a result of the New J ersey
Basic Skills Placement Test and CHM -
100, or a passing score on the CHM -
100 challenge exam.
Recommended Co-requisite: CHM-141 and MAT-045
IGeneral Education Course

## CHM-141 General Chemistry

Laboratory $I$ is a course designed to familiarize the student with chemical laboratory techniques through prob-lem-solving experiments. It complements material covered in CHM-140. Written lab reports are required. 3 lab., 1 credit
Prerequisite or Co-requisite: CHM-140 IGeneral Education Course

## CHM-212 Organic and

Biochemistry is designed to give students an understanding of the principles of Organic Chemistry and of Biochemistry. The study of Organic Chemistry will emphasize a functional group approach. Topics studied will include hydrocarbons, alcohols, carbonyl compounds, and amines. Topics in Biochemistry will include carbohydrates, proteins, lipids, nucleic acids, bioenergetics, enzymes, and biosynthetic pathw ays. Acid-base chemistry will also be studied.
3 lec., 3 lab., 4 credits
Prerequisites: M AT-011, CHM-112 or CHM -140 or by permission of the Department Head

CHM - 240 General Chemistry II is the second course of a two-semester sequence of general chemistry. Topics covered include intermolecular forces, properties of solutions, chemical kinetics, equilibrium, thermodynamics, acids and bases, and electrochem-
istry. 3 lec., 3 credits
Prerequisite: CHM-140
Recommended Prerequisite: CHM-141
Recommended Co-requisite: CHM-241
IGeneral Education Course

CHM-241 General Chemistry
Laboratory II is a continuation of CHM -141, with greater emphasis on more sophisticated experiments and equipment. It complements the material covered in CHM -240. Written lab reports are required. 3 lab., 1 credit Prerequisite: CHM-140 and
CHM -141. Prerequisite or Co-requisite: CHM - 240
IGeneral Education Course
CHM-260 Organic Chemistry I is a study of the fundamental classes of organic compounds, with emphasis on the relationship of structure and reactivity. Electronic theory, energy relationships, stereochemistry, and reaction mechanisms are used to explain reactivity. Practical applications, including syntheses, are studied and carried out in the laboratory. 3 lec., 3 lab., 4 credits Prerequisites: CHM -240 and CHM-241

CHM-262 Organic Chemistry II is a continuation of CHM-260 and includes aromatic and organometallic chemistry, spectroscopy, and the chemistry of carbonyl compounds. The laboratory emphasizes more sophisticated experimental techniques and synthetic sequences, and includes a unit on the use of the chemical literature. 3 lec., 3 lab., 4 credits Prerequisite: CHM-260

## COM - MASS <br> COMMUNICATION

COM-101 Mass Media of Communication is a study of the print and broadcast media. The roles of media in society, a history of media, and the legal control of media are explored. 3 lec., 3 credits IGeneral Education Course

COM-105 Radio Production is a
hands-on course designed to give the student experience in writing, directing and producing a variety of radio formats. Radio commercials, dramas, musical programs, and actualities are considered in this course.
2 lec., 2 lab., 3 credits
COM-106 TV Production is a practical, hands-on course that is designed to give the student experi ence in writing, directing, and producing a variety of television programs. Students apply theories, principles and skills of TV and videotape techniques through camera usage, control room operations, and video-tape editing.
2 lec., 2 lab., 3 credits

## $\dagger$ COM-140 Introduction to

Multimedia is a course that introduces the student to the various applications of computer-based M ultimedia in industry, government, education, and entertainment. Hardware systems, videodisc design, flow charts, software tools, scripts, and production will be covered. Students will work in groups to design and prepare a multimedia presentation. 2 lec., 2 lab., 3 credits (Not offered during 2000-2001)

## COM-201 Introduction to

J ournalism is a study of the fundamentals of reporting with emphasis on the modern news story. Elements of news style, structure of news stories, news sources, ethics, and the mechanics of new spaper production is considered. 3 lec., 3 credits Prerequisite: WRT-101

## COM-203 Print J ournalism

Production is a hands-on course in which students apply principles and skills necessary for the production of new spapers and magazines. This course covers such topics as formatting, layout design and printing techniques. 2 lec., 2 lab., 3 credits Prerequisite: COM-201

## COM-205 Advanced Radio

Production is a hands-on course designed to produce broadcast quality programs. Directing, writing, technical, editing and voice utilization skills will be emphasized. 3 lec., 3 credits
Prerequisite: COM-105 or by permission by the Department Head

## COM-206 Writing for the M ass

Media provides a survey of media formats and writing techniques for print and broadcast. Students are introduced to the forms and methods used to prepare information for the various mass media including magazines, new spapers, radio, television and the W orld Wide W eb. Public relations writing and preparing advertising copy are also covered. 3 lec., 3 credits
Prerequisite: W RT-101
Co-requisite: COM-101
COM-207 TV Production II is a course that provides the student with an opportunity to refine existing skills through the production of a regularly scheduled Cable TV public affairs program. A functional aw areness of all factors involved in the production of a series on a regular basis is developed. 3 lec., 3 credits Prerequisite: COM-106 or by permission by the Department Head

COM-208 Directing for Television is an introduction to television directing and to the pre-production steps necessary to the creation of a television program. The theoretical development of formats, lighting, set determinations, and crew selection are considered. Students are required to direct a variety of television program formats.
3 lec., 3 credits
Prerequisite: COM-106 or by permission by the Department Head

COM-210 Public Relations is a study of the basic principles and practices of promotion including history, development, ethics, and media selection. Emphasis will be placed on preparing news releases, advisements for coverage, and press kits for target audiences.
3 lec., 3 credits
Prerequisite: W RT-101

## COM-211 Video Post-Production

is a hands-on course designed to train students in advanced post-production techniques utilizing interformat, time code and $A / B$ Roll editing. Audio sw eetening, computer graphics, and animation will be discussed. 3 lec., 3 credits
Prerequisite: COM -106 or by permission by the Department Head

## COM-461-464 Co-Op W ork

 Experience (Media) is a field work course in media production, planning, or programming on an individual basis. The student must attend weekly seminars and/or prepare reports or other projects as required by the departmental staff. Credit is based on work with an approved broadcast or non-broadcast organization, including television and radio stations, netw orks, production houses, and cable TV operations. Available for 1 to 4 credits. J ob placement assistance is available through the Co-Op office.COM-461 1 lec., plus 60 minimum hours work experience distributed over the semester, 1 credit
COM-462 1 lec., plus 120 minimum hours work experience distributed over the semester, 2 credits COM-463 1 lec., plus 180 minimum hours work experience distributed over the semester, 3 credits COM-464 1 lec., plus 240 minimum hours work experience distributed over the semester, 3 credits Prerequisites: COM-105 or COM -106 or by permission of the Department Head

## COM-471-473 Co-Op W ork

Experience (J ournalism) gives
students work experience in a news paper office and thereby gives them the opportunity to acquire and apply skills in news writing, photo journalism, layout and/or newspaper production. W orksites must be approved by the faculty coordinator. Co-Op job placement assistance is available through the Co-Op office. COM-471 1 lec., plus 60 minimum hours work experience distributed over the semester, 1 credit
COM-472 1 lec., plus 120 minimum hours work experience distributed over the semester, 2 credits
COM-473 1 lec., plus 180 minimum hours work experience distributed over the semester, 3 credits Prerequisite: COM -201 or by permission of the Department Head

## CRJ - CRIMINAL J USTICE

CRJ - 101 Introduction to Criminal J ustice analyzes the history, development, and function of the police in a free society. A primary concern in the course is the relationship betw een the various components of the criminal justice system and the effectiveness of the system as a mechanism for social control. 3 lec., 3 credits

CRJ-103 Criminal Law is a study of the philosophy and development of the law of criminal procedure and its constitutional provisions. Topics included in the course are principles of criminal law and the adversary system, police authority, relative to the laws of arrest, search and seizure, and a review of relevant U.S. Supreme Court decisions. 3 lec., 3 credits

## CRJ-105 Police Administration

 provides a review, analysis, and synthesis of the proactive, traditional scientific, and human relations approaches to police management. The basic of administering a police organization such as recruitment and selection of personnel, training, fiscal and planning operations, and auxiliary and staff functions are review ed. Changes relative to socioeconomic, political, and technological realities are explored.3 lec., 3 credits

CRJ-107 Criminology explores the criminal justice system with an emphasis on the structure and operation of its components and on the modes of societal responses to crime and criminals. It reviews the development, philosophy, and concepts of criminal law and analyzes the leading theoretical perspectives on criminal behavior and criminal typologies. 3 lec., 3 credits

## CRJ-109 Contemporary Issues in

 Policing explores the history and scope of the relationship betw een the police and the community. Community relationships are examined from psychological and sociological perspectives. The course analyzes police issues such as media relations; citizen grievances; civilian review boards; selection, training, and education of personnel; police professionalism; discretionary use of police authority; police unionism; crime prevention; and the role of women in police agencies. 3 lec., 3 credits
## CRJ-110 Basic Supervision

 (Criminal J ustice) examines the first line supervisor as an integral part of the total management team and as one of the cornerstones upon which successful operations rest. The course analyzes the role of the supervisor as a problem-solver and as a key link in the communication process. Topics explored in the course are the supervisor's expanded responsibilities for planning, training, developing, and motivating employees; counseling, performance appraisal; decision making; and leadership. 3 lec., 3 creditsCRJ -111 Criminal Investigation analyzes the essential elements of investigation as a science of inquiry with an emphasis on the legal significance of evidence. M ethods of searching for, collecting, preserving, and evaluating physical evidence and the techniques for locating and interview ing witnesses are explored. Organizational investigative functions and the development of an understanding of the crime laboratory and its role in a criminal investigation are also discussed. 3 lec., 3 credits

CRJ -112 Crime Prevention examines opportunity reduction strategy as a predictable and controllable variable in addressing the crime problem. The course emphasizes the role of police as community leaders and explores practical concepts and methods through which community involvement can deter crime. The limitations of the criminal justice system are analyzed and a variety of professional, occupational, and voluntary roles in crime prevention are explored. 3 lec., 3 credits

## CRJ -113 The J uvenile J ustice

Process examines the history, philosophy, and structure of the juvenile justice system with emphasis on changes fostered by U.S. Supreme Court decisions. The course includes an analysis of the nature and the scope of delinquency in terms of causal theories; issues affecting dependent, neglected, and abused children; juvenile crime prevention programs; and the strategic role of the police in developing community resources to serve as altematives to formal court referral. 3 lec., 3 credits

## CRJ - 125 Introduction to Security is

 an examination of the historical, philosophical, and legal bases of security. The course analyzes the role of security in today's society, the concept of professionalism, and the relationship between security and law enforcement functions. Such security concerns as unlawful intrusion, retail theft, internal theft, and other crimes, which seriously threaten the business community, are also discussed. The scope and nature of fire prevention and safety are reviewed in a non-technical manner. 3 lec., 3 credits
## CRJ -127 Principles of Loss

Prevention examines the application of the concepts and procedures that serve to prevent losses due to waste, accidents, error, crime, and unethical practices. The emerging professional status of the loss-control manager and his/her attendant responsibilities are discussed. Basic loss-control technology, electronic security systems, disaster planning, and fire protection and safety are also reviewed. 3 lec., 3 credits

CRJ -461-463 Co-Op Work Experience (Criminal J ustice) provides the student with practical, supervised work experience in the various areas of criminal justice work: police agencies, prosecutors offices, courts, sheriff's offices, and the correction field. Through on-the-job experience, students can acquire the practical expertise and knowledge needed to pursue a career in this field. Students are supervised by a faculty member, and job placement assistance is available through the Cooperative Education Office. CRJ - 4611 lec; plus 60 minimum hours work experience distributed over the semester, 1 credit CRJ -462 1 lec; plus 120 minimum hours work experience distributed over the semester, 2 credits CRJ - 4631 lec; plus 180 minimum hours work experience distributed over the semester, 3 credits Prerequisite: CRJ -101

## CRJ - 473 Co-Op Work Experience

 (Security and Loss Prevention) provides the student with practical, supervised experience in various areas of business and institutional security work. Through on-the-job experience, students acquire some of the practical expertise and knowledge needed to pursue a career in this field. Students are supenvised by a faculty member, and job placement assistance is available through the Cooperative Education Office.1 lec; plus 180 minimum hours work experience distributed over the semester, 3 credits.
Prerequisite: CRJ -125

## DAN - DANCE

DAN-102 Ballet is a study of the language of ballet as an art form with emphasis on traditional, academic, and technical steps and vocabulary. 3 lab., 1 credit

DAN-103 M odern Dance is a study of the technical and choreographic skills of modern dance. Students are assisted in being individually creative through movement. 2 lab., 1 credit

DAN-104 Tap Dance is an introduction to elementary tap skills, terminology and rotation, and beginning combinations and simple routines.
Purchase of tap shoes is required.
2 lab., 1 credit
DAN-105 J azz Dance is a study of various styles, techniques, and vocabulary in the idiom of jazz dance. 2 lab., 1 credit

D A N -D FT
DAN-108 Dance Improvisation is a guided discovery of the freedom of movement in a medium for the expression and development of ideas. Through the emphasis of space, rhythm, and quality, pieces of choreography are designed. 2 lab., 1 credit

DATA PROCESSING
(See Information Technology)

DHY - DENTAL HYGIENE
DHY-101 Oral Hygiene I is a study
of the services a dental hygienist renders to patients. Scaling and polishing techniques on typodonts and classmates are utilized. Medical and dental history taking, patient education methods, and office procedures are introduced. 1 lec., 6 lab., 3 credits Co-requisite: BIO-104

DHY-108 Dental and Oral Anatomy and Physiology is a study of the oral cavity, with emphasis on the functions of the teeth and related structures, including muscles, nerves, and blood vessels. Laboratory sessions include tooth carving, anatomy of the skull, and the study of occlusion. 1 lec., 4 lab., 2 credits

## DHY-109 Oral Embryology and

 Histology is a study of the structure of body cells, tissues, and organs as they relate to the oral cavity. The embryology of the oral apparatus will be studied, and the relationship between structure and function will be stressed. 2 lec., 2 credits
## DHY-200 Pharmacology for Dental

Hygiene introduces medications that are routinely prescribed for medical and dental conditions. Chemical and physical properties of drugs will be examined as well as indications for use, dosage, and adverse reactions. Local and general anesthetic agents used in dentistry will be emphasized. 2 lec., 2 credits
Prerequisites: DHY-101, DHY-201, and DHY-207

DHY-201 Oral Hygiene II is a study of the procedures a dental hygienist uses with patients in a clinical setting. These procedures are scaling and polishing of the teeth, patient education, general medical and dental history taking, sterilization procedures, and appointment desk duties and procedures.
1 lec., 8 lab., 3 credits
Prerequisites: BIO-104, BIO-109, DHY101, DHY-108, and DHY-109

DHY-202 Oral Hygiene III is a study of the clinical procedures introduced in Oral Hygiene II. It is a continuation and refinement of the clinical procedures a dental hygienist uses with patients, with emphasis on radiological procedures.
1 lec., 12 lab., 4 credits Prerequisites: BIO-104, BIO-209, DHY201, DHY-205, and DHY-207

DHY-203 Oral Hygiene IV is an advanced study of the clinical services the dental hygienist renders to the patient. The course is conducted in cooperation with national, state, county, and city agencies.
1 lec., 12 lab., 4 credits
Prerequisites: DHY-200, DHY-202,
DHY-204, and DHY-209
DHY-204 Dental M aterials is a comprehensive study of the science, technology, and application of dental materials. Various dental materials and their specific uses, along with related fundamental and specialty clinical dental hygiene skills, are presented through didactic, laboratory, and clinical components.
2 lec., 4 lab., 3 credits
Prerequisites: BIO-209, DHY-108, DHY-109, DHY-201, DHY-207 and CHM-110

## DHY-205 Dental Radiology is a

study of the basic principles of general and dental radiology. Radiography equipment, techniques, the hazards of radiation and dental landmarks are studied.
2 lec., 3 lab., 3 credits Prerequisites: BIO104, BIO-109, DHY101, DHY-108, and DHY-109

## DHY-206 Public Health and

Community Dentistry is a study of the history, development and present practice of public health procedures as they relate to dentistry, including epidemiological study. Opportunity will be provided for practice teaching in alternating health care settings. 3 lec., 3 credits
Prerequisites: BIO-209, DHY-108, and DHY-109

## DHY-207 General and Oral

Pathology is a study of diseases affecting the oral cavity and the responsibilities of the dental hygienist in the detection of abnormal conditions. 3 lec., 3 credits
Prerequisites: BIO-109, DHY-108, and DHY-109

DHY-209 Periodontology I is a detailed study of the principles and concepts of periodontal disease, including the tissues surrounding the teeth in both healthy and disease states. Preventive therapies will be introduced. 1 lec., 1 credit
Prerequisites: BIO-209, DHY-108, and DHY-205

## DHY-210 Oral Hygiene - Special

Clinic is designed to provide clinical experience for either the student who returns after an absence from the dental hygiene program or for the student in need of further development of clinical skills. 3 hours, 1 credit Prerequisites: DHY-108, DHY-109, DHY-201, and BIO-109

## DHY-214 Nutrition in Dental

Health explores basic nutrition as it applies to general and oral health. Nutritional concepts are applied to the science of preventive dentistry. 2 lec., 2 credits
Prerequisites: CHM-110 and DHY-202
DHY-219 Periodontology II is an advanced study of the disease process and treatment modalities for periodontal disease. Emphasis will be placed on the dental hygienist's role in initial therapy and in the maintenance of oral health. 1 lec., 1 credit Prerequisite: DHY-209

DFT - DRAFTING \& DESIGN


AIA Provider, Bergen Community College is registered as a Premier provider with the American Institute of Architects, Continuing Education System (AIA/CES). We are commited to offering quality education in accordance with the AIA/CES criteria. (Provider \#F162). These programs meet the AIA/CES criteria for Quality Level III. AIA members will receive the appropriate Learning Units, which will be reported directly to the AIA/CES.

DFT-107 Drafting I offers the student a theoretical basis for the development of drafting skills necessary to work in drafting, design, engineering, and technical professions. Emphasis is placed on terminology and procedures used in multiview projection, auxiliary and sectional views, intersections and developments, dimensioning, and pictorial drawing. Students are encouraged to develop an aw areness of proper drafting techniques, the geometry of technical drawing, and new technological advancements in the field of drafting. Computer Aided Drafting (CAD) is introduced. 1 lec., 3 lab., 2 credits

DFT-207 Drafting II introduces the student to basic theory and design techniques used in industrial drafting with emphasis on the development of the drafting skills necessary for producing drawings used by industry for the design, production, and promotion of various products. Computer Aided Drafting (CAD) is included. A semester project is undertaken in which the student produces all necessary drawings for the manufacture of a product. Topics covered include gears, threads, tolerancing, inking, perspectives, and advanced isometrics.
2 lec., 2 lab., 3 credits
Prerequisite: DFT-107

## DFT-208 Engineering Graphics I

is designed to acquaint the student with various types of graphic solutions to engineering and drafting problems. Special attention is given to orthographic projection as it relates to solving graphical space problems. Extensive problem-solving involving points, lines, and planes, and aids to students' visualization process for advanced drafting, engi neering design, and computer graphics applications are covered.
2 lec., 2 lab., 3 credits
Prerequisite: DFT-107
DFT-209 Engineering Graphics II offers the student the opportunity to apply the techniques introduced in Engineering Graphics I. Topics include revolution, developments, mining and civil engineering, and contour maps. CAD is used extensively in the solution of many engineering and design problems. Onsite visits to local industry are designed to show practical applications of the topics discussed. Special attention is given to advanced drafting, design, and engineering problems.
2 lec., 2 lab., 3 credits
Prerequisite: DFT-207, DFT-208 Drafting I introduces the use of computer aided drafting (CAD) on a PC computer using AutoCad software. This course is intended to familiarize the user with the skills necessary to use CAD as an effective drafting and design tool for mechanical, architectural, electrical, and other drafting and design professionals. Topics covered including drawing set-up, line drawing, editing, layer creation, display features, and dimensioning.
2 lec., 2 lab., 3 credits
Prerequisite or Co-requisite: DFT-107

## DFT-211 Computer Aided

 Drafting II continues the work of CAD I and covers intermediate and advanced level CAD skills. Included in this course will be file management, blocks, attributes, isometric draw ings, 3D with AutoShade, menu customization, LISP programming and architectural draw ings using AEC softw are. At the conclusion of this course the individual should have the general skills necessary to adapt to most CAD softw are.3 lec., 5 lab., 5 credits
Prerequisite: DFT-210

## DFT-212 Computer Aided

 Drafting III provides continued study of advanced CAD technologies, giving students a complete hands-on experience with three dimensional photorealistic and presentation graphics.2 lec., 2 lab., 3 credits
Prerequisite: DFT-211

## DFT-215 Mechanical

Building Systems I is an introduction to plumbing and HVAC equipment and systems. Nomenclature, specifications, layout draw ings, plans, details, sections, elevations, and isometric drawings are developed. 2 lec., 2 lab., 3 credits Prerequisites: DFT-207 and DFT-208

## S. DFT-216 Mechanical

Building Systems II continues the work of M echanical Building Systems I from the design point of view, with a study of the design procedures for a wide range of plumbing and HVAC systems.
2 lec., 2 lab., 3 credits
Prerequisite: DFT-215

## DFT-220 Electrical Drafting and

Design is intended for the student interested in the specializzd field of electrical drafting. The course introduces, from the design side, those considerations necessary to prepare draw ings for the construction of electrical systems over a broad range of applications.
2 lec., 2 lab., 3 credits Prerequisite: DFT-262

## DFT-262 Architectural

 Drafting is an introductory course that develops drafting procedures and detailing techniques using a residential project. Students will complete a set of architectural residential working drawings, which will include floor plans, elevations and detail drawings. Topics will include basic house framing, dimensions and specifications used in architectural drawing, cost estimating, building materials, and detailing structural aspects of a building. The use of architectural, engineering, and construction CAD packages will be covered. 2 lec., 2 lab., 3 credits Prerequisites: DFT-207 and DFT-208 Co-requisite: DFT-265

Design discusses design theory and principles. Commercial building and site design, analysis and develop ment are stressed and explored through case studies and building design projects.
2 lec., 2 lab., 3 credits Prerequisites: DFT-262 and DFT-265

## DFT-265 Architectural

Practice and Planning is designed to provide the student with basic practical and technical guidelines for working in a professional architectural and construction environment. Topics covered include design process, design development, site analysis and planning, zoning and building codes, and contracts and construction practices.
2 lec., 2 lab., 3 credits
Prerequisites: DFT-207 and DFT-208
Co-requisite: DFT-262 duces and discusses the construction process and its role in Architecture and Design. Major building component systems and methods and structural design theory are explored. 2 lec., 2 lab., 3 credits Prerequisite: DFT-262

## DFT-282 Technical Illustration

details the techniques used in the preparation of pictorial technical material for illustration and publication. Advanced drawing techniques in axonometric, oblique, and perspectives are covered, as well as basic shading methods used in illustration, including line shading, stipple shading, airbrush, and cast shadows. 2 lec., 2 lab., 3 credits Prerequisite: DFT-207

## DFT-461-463 Co-Op W ork

 Experience (Drafting and Design) are designed to provide drafting and design students with part-time work experiences so that they may learn and practice under professional guidance in college approved work environments. In addition, weekly seminars are conducted by a college faculty member. Students must apply for these courses through the Co-Op Office, which offers job placement assistance; this application must precede registration for $\mathrm{Co}-\mathrm{Op}$ courses. DFT-461 1 lec., plus 60 minimum hours work experience distributed over the semester, 1 creditDFT-462 1 lec., plus 120 minimum hours work experience distributed over the semester, 2 credits
DFT-463 1 lec., plus 180 minimum hours work experience distributed over the semester, 3 credits Prerequisite: DFT-207 or by permission of the Department Head

DMS - ULTRASOUND/DIAGNOSTIC MEDICAL SONOGRAPHY

DM S-101 Ultrasound Physics I is a course that reviews relevant fundamental physics and mathematics as a prelude to the discussion of acoustical physics and physical principles of ultrasound. M odes of operation, imaging and display techniques that relate to high frequency sound production will be stressed. Instruction inoperational standards and quality control will be presented.
2 lec., 3 lab., 3 credits

## DM S-102 Clinic al Medicine \&

Patient Care is a course that will enable the student to provide quality patient care while demonstrating the application of technical skills needed to perform ultrasound procedures. An understanding of pertinent emergency care will be presented.
2 lec., 2 credits

DMS-201 Ultrasound Physics II is a course that reviews basic principles from the previous semester in order to explain Doppler ultrasound, image artifacts, ultrasound bioeffects, safety, and quality assurance.
2 lec., 3 lab., 3 credits
Prerequisite: DM S-101

## DMS-202 Cross Sectional

Anatomy I is a course that involves the study of the structure and function of human anatomy in all body planes with particular emphasis on the cross sectional mode. The organs and system relationships are examined, particularly the abdomen, kidney, pelvis, liver, biliary, pancreas and female reproductive system. Fetal growth and development is also discussed. 2 lec., 3 lab., 3 credits Prerequisites: BIO-109 and M OA-140

## DMS-203 Cross Sectional

Anatomy II continues to explore human anatomy and the physiology of organs and body systems, both normal and abnormal states. Particular emphasis is placed on circulatory anatomy and physiology including gross and cross sectional cardiac anatomy, circulatory anatomy and physiology including gross and cross sectional cardiac anatomy, circulatory histology, and hemodynamics.
2 lec., 3 lab., 3 credits
Prerequisites: BIO-209 and DM S-202

## DMS-204 Introduction to Medical

Imaging provides an overview of the field of diagnostic medical imaging, including ultrasound. The topics addressed are imaging, laboratory, and testing procedures as they contribute to the clinical evaluation of disease and pathology.
2 lec., 2 credits
Prerequisites: BIO-109 and DMS-102

## DMS-205 Obstetric \&

Gynecological Sonography is a course designed to familiarize students with the pathophysiology of the female reproductive system, abdominal masses, gynecological anomalies and normal and abnormal obstetric patterns. Fetal stages of development and a discussion of amniocentesis is included. Obtaining quality examinations which demonstrate anatomical, pathological and/or physiological data for interpreting by physicians is stressed. The sonographic criteria for evaluation of the gravid uterus and fetus will be demonstrated.
2 lec., 3 lab., 3 credits
Prerequisites: DM S-202 and DM S204

D M S -EBS

DM S-206 Sonographic
Interpretation \& Technique I is a course that is designed to guide the student into an investigation of new and specialty techniques using ultrasound. Students are given independent learning assignments in specialty areas of ultrasound imaging. Topics include amniocentesis, endoscanning, and neonatal neurosonography.
Professional topics are also discussed. 1 lec., 3 lab., 2 credits
Prerequisite: BIO-209

## DMS-207 Sonographic

Interpretation \& Technique II continues to explore specialty areas of ultrasound. Students are given guided learning assignments in vascular scanning, professional topics, and other areas. 1 lec., 3 lab., 2 credits Prerequisite: DM S-206

DMS-208 Clinical Practicum I is an introduction to the Radiology and Ultrasound Departments of the hospital. The student is expected to observe ultrasound procedures, develop films, learn and participate in record-keeping, and assist with patient care.
1 credit, 40 hours per wk for $6 \mathrm{wks}=240$ hours.
Prerequisites: DM S-201, DMS 202,
and DM S-204

## DMS-209 Clinical Practicum II

requires the student to spend 2 days a week in an approved hospital
Ultrasound Department. Students perform routine procedures under the direct supervision of the supervising sonographer. Students are given specific learning objectives for the rotation. Progress is evaluated according to a competency based clinical education system.
1 credit, 240 hours, 2 days per wk for $15 \mathrm{wks}=240$ hours
Prerequisite: DM S-208
Co-requisite: DM S-205 and DM S-212

## DMS-210 Clinical Practicum III

requires the student to spend 2 days a week in an approved hospital
Ultrasound Department. Students perform routine procedures under the direct supervision of the supervising sonographer. Students are given specific learning objectives for the rota-
tion. Progress is evaluated according to a competency based clinical education system.
1 credit, 240 hours (2 days per wk for $15 \mathrm{wks}=240$ hours)
Prerequisite: DM S-209
Co-requisite: DM S-213 and DM S-214

## DMS-212 Abdominal Sonography

I is a comprehensive study of abdominal structures with an emphasis on specialty organ examinations. A knowledge of the diagnosis, history and physical finds, as they pertain to the pathophysiology of abdominal organs and systems is presented. Normal and abnormal tissue patterns are included within the discussions. 2 lec., 3 lab., 3 credits Prerequisites: DM S-202 and DMS204

## DMS-213 Abdominal Sonography

 II is a course that continues the comprehensive study of the abdominal structures with a stronger emphasis on abdominal medicine. Surgical implications are also presented. Interpretation of abdominal sonograms and scanning techniques specific to abdominal structures is also discussed. 2 lec., 3 lab., 3 credits Prerequisite: DM S-212DMS-214 Echocardiography is a course that will review cardiac anatomy and physiology. A descriptive and functional study of cardiac ultrasound using 2 dimensional and M -mode techniques will be discussed. The basic echocardiogram routine examination and practical scanning techniques are included in the lecture. Interpretation of normal studies and basic pathologies will be discussed. 2 lec., 3 lab., 3 credits Prerequisites: DM S-203 and DMS204

DMS-215 Ultrasound Pathology is an in-depth study of normal and abnormal physiology and pathophysiology demonstrated by ultrasonic modalities. Abnormal vascular patterns and their sonographic appearances are presented. The student must demonstrate a knowledge of the changes in sonographic appearance caused by various disease processes using Doppler, Real Time and Gray Scale Ultrasound. 1 lec., 1 credit Prerequisite: DM S-205 and DM S-212

## DMS-216 Clinic al Practicum IV

 requires the student to spend 5 days a week in an approved hospital Ultrasound Department. Students perform routine procedures under the direct supervision of the supervising sonographer. Students are given specific learning objectives for the rotation. Progress is evaluated according to a competency based clinical education system.2 credits, 480 hours, 5 days per wk for $12 \mathrm{wks}=480$ hours
Prerequisite: DM S-207, DMS-210, and DM S-215

## EBS - ENGLISH BASIC SKILLS

## EBS-014 Developmental

Skills I is the first course of a two course basic skills sequence designed to improve fundamental academic skills in the areas of reading and writing. Class instruction emphasizes the development of literal comprehension, sentence structure, grammar and punctuation, and vocabulary. This course requires concurrent enrollment in EBS-015 Skills Practicum .
3 lec., 3 credits (non-degree credit) Co-requisite: EBS-015

EBS-015 Skills Practicum I is the co-requisite of Developmental Skills I. The objective of this course is to provide an opportunity for the student to apply the skills leamed in Developmental Skills I. Instruction is individualized and lessons are drawn from the class activities of Develop mental Skills I. This course requires concurrent enrollment in EBS-014 Developmental Skills.
2 lec., 2 non-degree credits Co-requisite: EBS-014

## EBS-016 Developmental Skills II

is the final course of a two course basic skills sequence designed to improve fundamental academic skills in the areas of reading and writing. Class instruction emphasizes inferential and critical reading, paragraph organization and development, and vocabulary development through reading activities. Successful completion of this course permits enrollment in English Composition I. This course requires concurrent enrollment in EBS-017 Skills Practicum II. 3 lec., 3 non-degree credits Co-requisite: EBS-017

## EBS-017 Skills Practicum II

is the co-requisite of Developmental Skills II. The objective of this course is to provide an opportunity for the student to apply the skills learned in Developmental Skills II. Instruction is individualized and lessons are drawn from the class activities of Developmental Skills II. This course requires concurrent enrollment in $D$ EBS-016 Developmental Skills II. 2 lec., 2 non-degree credits Co-requisite: EBS-016

EBS-023 English Skills is a one semester developmental skills course designed to improve fundamental academic skills in the areas of reading, writing, and study skills. Class instruction emphasizes inferential and critical reading, paragraph organization and development, and vocabulary development through reading activities. Opportunities for word processing and individualized instruction in the Directed Studies Center in grammar, mechanics, and punctuation are provided. Successful completion of this course permits enrollment in English Composition I. This course requires concurrent enrollment in EBS-024 English Skills Practicum.
3 lec., 3 non-degree credits Co-requisite: EBS-024

## EBS-024 English Skills

Practicum is the co-requisite of English Skills. The objective of this course is to provide an opportunity for the student to apply the skills learned in English Skills. Instruction is individualized and lessons are drawn from the class activities of English Skills. This course requires concurrent enrollment in EBS-023 English Skills.
2 lec., 2 non-degree credits Co-requisite: EBS-023

## EBS-031 Directed Studies in

 Writing is a required course for students whose scores on the New J ersey Basic Skills Placement Test indicate a need for intensive instruction in writing. Personalized instruction designed to support the student's activities in English Composition I is offered in this course. 1 lec., 1 non-degree credit Co-requisite: W LT-101
## EBS-032 Directed Studies in

 Academic Skills reinforces reading, writing and study skills. Skills addressed in this course are: how to use the library and do research, how to take notes, how to write essay exams and take tests,how to approach college reading assignments, and how to use a variety of study aids. Instruction will occur through classroom lecture, discussion, and computer-assisted instruction.3 lec., 3 credits non-degree credits

## ECO-ECONOMICS

ECO-101 M acro Economics is the study of resources, scarcity, income, employment, banking, government involvement, international trade and international payments in the economy of the United States. This course explores the different macro economic theories that seek to explain economic behavior and the economic tools available to the government in its efforts to achieve full employment, stable prices, and economic grow th, and the equitable distribution of income. 3 lec., 3 credits - General Education Course

ECO-103 Consumer Economics is
the study of the consumers role in the market, their relationship with suppliers, and consumer sovereignty. Emphasis is placed on analytic thinking and rational decision making in a market economy. 3 lec., 3 credits

ECO-105 Labor Economics is an analysis of the United States labor market. The course examines labor market theory; the imperfections, structures, institutions, and programs that are part of the labor market today; and trends and innovations related to market performance and its matching of people with jobs. Topics discussed include employment, unemployment, government policy, labor and management interaction, and the relationship of the labor market to the performance of the larger economy. 3 lec., 3 credits

ECO-201 M icro Economics is the study of price theory, elasticity, factor markets, market power, competition, pollution, and intemational trade. 3 lec., 3 credits
Prerequisite: ECO-101
IGeneral Education Course

## ECO-461-463 Co-Op Work

 Experience (Economics) provides the student with practical work experience in the area of economics. Students are supervised by a faculty member, and job placement assistance is available through the Cooperative Education Office. Prerequisite: ECO-101ECO-461 1 lec; plus 60 minimum hours work experience distributed over the semester, 1 credit
ECO-462 1 lec; plus 120 minimum hours work experience distributed over the semester, 2 credits
ECO-463 1 lecture; plus 180 minimum hours work experience distributed over the semester, 3 credits

## EDU - EDUCATION

## EDU-101 Introduction to

 Education is a study of the social, historical, and philosophical principles and foundations of American education. 3 lec., 3 credits
## EDU-103 Principles and

 Practices in Education is an application of educational theory and research to classroom teaching situations. Group dynamics techniques, learning theories, methods of measurement and evaluation, and problem solving strategies are studied. 3 lec., 3 credits
## EDU-120 Early Childhood

Education I provides an overview of the basic principles and concepts of early childhood education. The needs and abilities of young children are analyzed, and directed observations are made in early childhood education programs. 3 lec., 3 credits

EDU-124 Curriculum M aterials and Methods is designed to assist the student in the creation, evaluation, and organization of curriculum materials appropriate for young children. Students plan and develop curricula in the languages and creative arts. 3 lec., 3 credits

## EDU-126 Developing and

 Implementing Curriculum is designed to provide students with the experience of planning a total curriculum in early childhood education. Students plan and develop curricula in mathematics, science, and social studies. 3 lec., 3 credits
## EDU-130 Infants and Toddlers in Early Childhood Education Settings

 surveys the psychological and educational development of infants and toddlers. Program development in the child care setting is explored. Existing program models in infant-toddler education are studied. 3 lec., 3 credits
## EDU-132 The Parenting of Very Young Children (Birth to 6 Years

 Old) is a study of parental involvement with children, the amount and quality of parent-child interaction, the psychosocial development of young children, personnel placement in early childhood programs, and school-home communication. 3 lec., 3 credits
## EDU-220 Early Childhood

Education II examines current and critical issues in the field of early childhood education. These issues are explored via current readings and specialized projects. 3 lec., 3 credits Prerequisite: EDU-120

## EDU-222 Supervised Field W ork

Experience $I$ is a weekly three-hour placement intem at an assigned school site. Training and supervision occur in basic curricular areas. The student intern assists the teacher with daily routines and assumes responsibility for planning curricular activities. This course must be taken in conjunction with Field W ork Seminar I. 3 lec., 2 credits
Co-requisite: EDU-124 and EDU-223

## EDU-223 Field Work Seminar I

serves as a forum for the discussion of student's field experience. Field experiences are critically evaluated by both students and supervising teachers. Attention is given to the necessary components of classroom management. 2 lec., 2 credits
Co-requisite: EDU-124 and EDU-222

## EDU-224 Supervised Field Work

Experience II is a continuation of
Supervised Field Work Experience I. The field placement is at a different site with a different age group than that assigned in Supervised Field Work I. This course must be taken in conjunction with Field Work Seminar II.
3 hours, 2 credits
Prerequisite: EDU-222
Co-requisite: EDU-225
EDU-225 Field Work Seminar II is a continuation of Field W ork Seminar I. Additional areas considered are certification, job placement, and educational options beyond the A.A.S. degree. 2 lec., 2 credits
Prerequisite: ED-223
Co-requisite: ED-224

## ELC - ELECTRICAL

 TECHNOLOGYELC-100 Introduction to Electrical Technology presents an orientation to the various sub-specialties within the field, their inter-relatinships, and their range of applications. The course also covers introductory topics in electrical and electronics drafting, comput-er-aided circuit analysis, and electronic fabrication. 1 lec., 2 lab., 2 credits ELC-101 DC-Circuit Analysis includes Ohm's and Kirchoff's law s for analysis of series, parallel, and series/parallel circuits, and Thevenin's and Norton's theorems for multipleloop circuits. Capacitance and inductance transient behavior is also studied, as well as branch, mesh and node analysis. 3 lec., 3 lab., 4 credits

## ELC-124 M edia M aintenance and

 Repair is a practical classroom course designed to acquaint students with the operation, maintenance and repair of TV monitors and receivers. VCRs. 16 mm projectors, overhead projectors, audio tape recorders, film strip projectors, slide projectors and computers.The proper use of various testing instruments is also discussed. 2 lec., 2 lab., 3 credits

## ELC-125 Audio/Video Servicing is a

 practical course designed to acquaint students with video/audio hardware, its operation, maintenance and repair. 2 lec., 2 lab., 3 credits
## ELC-126 Practical Electronics

 Troubleshooting is a course designed to acquaint students with essential troubleshooting techniques in audio and video systems. Reading schematics, D.C. troubleshooting and signal tracing for efficient repair and service of electronic equipment and devices, as well as maximum utilization of VOM s, oscilloscopes, generators, and other test equipment will be covered. 2 lec., 2 lab., 3 creditsELC-201 AC-Circuit Analysis introduces sinusoidal inputs and time response of RL, RC, and RLC circuits. Netw ork theorems for AC-circuits are covered, as well as resonance, filters, and pulse response of reactive circuits. 3 lec., 3 lab., 4 credits
Prerequisite: ELC-101
ELC-203 Electronics I is an introduction to the fundamental concepts and applications of solid-state devices.
3 lec., 3 lab., 4 credits
Co-requisite: ELC-201
ELC-204 Electronics II is the second course in a two-course sequence in electronics. It builds upon the first course with a study of solid-state voltage and pow er amplifiers, emitter followers, field-effect transistors and circuits, thyristors, frequency effects, and op-amps. 3 lec., 3 lab., 4 credits Prerequisite: ELC-203

ELC-214 Communication Systems I emphasizes the application of electronic communication theory to practical systems. This first course of a twocourse sequence covers AM and FM systems, television, and telephone. Digital and data communication will be introduced, and continued in Communication Systems II.
3 lec., 3 lab., 4 credits
Co-requisite: ELC-204

## ELC-215 Communication Systems

II follows the first course in this sequence, continuing work in digital and data communication, and then covers transmission lines, radio-w ave propagation, antennas, microwave systems, satellite communications, fiber-optic systems, and cellular communication systems.
3 lec., 3 lab., 4 credits
Prerequisite: ELC-214

## ELC-462 Co-Op W ork Experience

 (Electronics) provides the student with practical, supervised work experience in the field of electronic engineering technology. Through on-thejob experience, students can acquire valuable practical knowledge and skills to pursue a related career. Students are supervised by a faculty member and job placedment assistance is available through the Co-Op Office.1 lec., plus 120 minimum hours work experience distributed over the semester, 2 credits
Prerequisite: ELC-214 or by permission of the Department Head

## ENV - ENVIRONMENTAL TECHNOLOGY

ENV-108 Hazardous Waste Site Operations is a course that combines classroom and hands-on field work to teach the student how to operate safely and within the OSHA 1910.120 (HAZW OPER) regulations. The course examines occupational health and safety issues, medical surveillance programs, site health and safety plans, emergency response plans, adequate illumination and sanitation, hazard communication, and rights and responsibilities of employers and employees under OSHA and EPA laws. 3 lec., 3 credits

ENV-109 Environmental Policy Compliance and Regulation deals with environmental policy compliance, environmental studies, and public policy. This course provides insight into the workings of government that are necessary for the formation of public policy. The course examines environmental policy in the United States in air, water, land use, agriculture, industry, energy, waste disposal, and other areas and provides an introduction to the policy and decision making process. 3 lec., 3 credits

## ENV-112 Environmental Health

 addresses a wide range of environmental issues, including prediction and management of environmental impacts, management of renew able resources, protection or restoration of species and ecosystems and use of generic ecological studies to promote understanding of classes of environmental problems. Case studies will exemplify how laws, regulations and treaties impact with decisions made concerning environmental quality. 3 lec., 3 credits
## ENV-113 Human Environment

enables students to understand human interaction and impact on their environment. Students apply their skills and knowledge to understand more practical information about their environment. The context and interdisciplinary content of this hands-on course will be pow erful and can be used in a variety of ways. Students are able to apply practical knowledge of the environment to everyday personal, business and government related decisions. 3 lec., 3 credits

## ENV-114 Field Laboratory

Experience is a planned educational experience held at a regional Environmental Education Field Center. This course supports and supplements the theoretical and scientific foundations communicated in the Environmental Technology Program. Specific environmental issues or problems are addressed, experienced and analyzed on site. The course contributes to the development of more positive attitudes and values tow ards the environment. 1 credit, 15 hours

## ENV-121 Environmental

Microbiology is a course concerning bacteria and other microorganisms and their role in the environment. Topics include an introduction to microorganisms and their physiology, soil microbiology, cycles of the elements, aquatic microbiology, sew age treatment, bioremediation, and applied microbiology encompassing food microbiology, industrial microbiology and biotechnology. 3 lec., 3 lab., 4 credits

ENV-122 Environmental Chemistry introduces students to the fundamental principles in air pollution technology, water and waste water technology, and solid/ hazardous waste technology. Each area of study will be presented with an emphasis on the following operations: EPA/NJ DEP protocol in data collection and analysis, and the application of modem instrumentation to environmental systems. Current trends in environmental technology, such as natural attenuation, waste reduction and environmental engineering are discussed.
3 lec., 3 lab., 4 credits Prerequisites: CHM-100 or by permission of instructor

## ENV-461-464 Co-Op W ork

 Experience (Environmental Technology) provides the student with practical, supervised w ork experience in the various fields of environmental technology. Through on-thejob experience, students can acquire the practical expertise and knowledge needed to pursue a career in this field. Students are supervised by a faculty member, and job placement assistance is available through the Co-Op office.Prerequisites: W RT-101, BIO-101, CHM -100, TEC-180, or by permission of the Department Head
ENV-461 1 lec.; plus 60 minimum hours work experience distributed over the semester, 1 credit
ENV-462 1 lec.; plus 120 minimum hours work experience distributed over the semester, 2 credits
ENV-463 1 lec; plus 180 minimum hurs w ork experience distributed over the semester, 3 credits ENV-464 1 lec.; plus 240 minimum hours work experience distributed over the semester, 4 credits

## ESC - EARTH SCIENCE

ESC-111 Astronomy is a survey of the universe. Light, astronomical instruments and the historical development of Astronomy are topics studied to initiate a tour of the heavens, which includes the Earth as a planet, the Moon, the Solar System, stars, galaxies, quasars, black holes, and scientific theories of the creation of the universe. The possibility of life elsewhere is discovered throughout. Labs supplement the course material and include a visit to a local observatory. (Not open to students who have taken PHY-107 or the equivalent.) 3 lec., 3 lab., 4 credits IGeneral Education Course

ESC-112 Climatology is a study of the Earth's climate. Climate elements and atmospheric heat transfer processes will be studied and applied to climate classification schemes. The effects of climate on human activities will be considered. Special attention will be given to the greenhouse effect, El Nino, Ice Age theories, climate explanations for the extinction of the dinosaurs, and past and future climates. Laboratory w ork features simple analytical and statistical analysis of climate data. 3 lec., 3 lab., 4 credits IGeneral Education Course

ESC-113 Geology is a study of the solid Earth. Topics include minerals and rocks, weathering and soils, groundw ater, glaciers, deserts, earthquakes, and volcanism. Special attention will be given to mining and oil prospecting and their environmental effects, fossils and rocks, plate tectonics, analysis of the structure of the Earth's interior, and Geologic time and Earth History. Laboratory work includes mineral and rock analysis, soil and vegeta tion studies, topographic mapping, and review of the geologic calendar. (Not open to students who have taken PHY-106 or the equivalent.) 3 lec., 3 lab., 4 credits IGeneral Education Course

ESC-114 M eteorology is a study of weather. It begins with the origin, evolution, present composition, and vertical structure of the atmosphere. This leads to a comprehensive analysis of the weather elements temperature, humidity, fogs, clouds, pressure rain, snow and the development of air masses, fronts, anticyclones, cyclones, and severe storms. Special topics include pollution, the ozone layer, the urban heat island effect, lighting, and weather modification. Labs emphasize sun-weath-er- relationships, weather maps, and forecasting techniques. (Not open to students who have taken PHY-106 or the equivalent.)
3 lec., 3 lab., 4 credits
IGeneral Education Course

## GEO- GEOGRAPHY

GEO-101 Geography is a detailed study of topography, land usage, and natural resources as they directly and indirectly affect human, economic, historical and political interaction. 3 lec., 3 credits
IGeneral Education Course

## HIS - HISTORY

HIS-101 History of Western
Civilization to the Reformation is a study of the western world from ancient times to the Renaissance and Reformation. M ajor cultural, social, economic, political, and religious developments in the history of the west are surveyed. 3 lec., 3 credits IGeneral Education Course

## HIS-102 History of Western

 Civilization since the Reformation is a study of the westem world from the sixteenth century to the contemporary period. M ajor cultural, social, economic, political, and religious developments in modern western history are surveyed. 3 lec., 3 creditsIGeneral Education Course
HIS-105 Women in History is a study of women's roles from the classical age to the present. Various past societies are examined to determine their attitudes tow ards women as well as the causes and consequences of these attitudes. Particular attention is placed on studying women's roles in 19th and 20th century Europe and America. 3 lec., 3 credits
IGeneral Education Course
Diversity Course

HIS-106 History of M odern Europe to the French Revolution is an analysis of western European history from the late M iddle Ages to 1815. The course provides an overview of the major political, economic, and cultural developments which molded early modern Europe and culminates with an intensive examination of the French Revolution and the Napoleonic era. 3 lec., 3 credits
IGeneral Education Course
HIS-107 History of M odern Europe Since the French Revolution is an analysis of western European history from 1815 to present. The course provides an overview of the major political, economic, and cultural developments which characterize modern Europe and concludes with a comparative study of post-war Europe and America. 3 lec., 3 credits
IGeneral Education Course
HIS-111 United States History to Reconstruction is a survey of the history of America from the colonial era to the Civil War and Reconstruction period. Emphasis is placed on the origins of American political system and on the social, cultural, economic, and diplomatic development of the United States. 3 lec., 3 credits
IGeneral Education Course

## HIS-112 United States History

 since Rec onstruction is a survey of the history of the United States from the Reconstruction period to the present. Emphasis is placed on the American political system and on the social, economic, and diplomatic development of the United States. 3 lec., 3 credits IGeneral Education Course
## HIS-113 History of 20th Century

 United States to World War II is a study of the United States from the beginning of the 20th Century through the New Deal Era of the 1930s. Topics covered include Industrialism,Progressivism, the Great Depression, the New Deal, United States involvement in world affairs, W orld War I, and the political, social, economic, and cultural development of the United States during this period.
3 lec., 3 credits
IGeneral Education Course

HIS-114 History of 20th Century United States since W orld War II is a study of the United States from the Second World War to the present. Topics covered include W orld War II diplomacy, the Cold War, containment, the Vietnam era, detente, domestic reforms including Civil Rights, and the Great Society, Watergate, and other political, social, economic, and cultural developments in the United States from the 1940s to the present. 3 lec., 3 credits
IGeneral Education Course

## HIS-115 Themes in U.S. History

 (Recent American Foreign Policy) is an analysis of the way World War II altered the relationships betw een world and national powers and of how the turbulence of the period led to international tensions and conflict. The course examines the cold war; its underlying forces and trends, its principal events, and its participants. 3 lec., 3 creditsHIS-116 Themes in U.S. History (Women in American History) is a survey of the history of women from the colonial period to the present. Feminism, women's suffrage, and the advocacy of social and economic equality are the unifying themes of the course. 3 lec., 3 credits
IGeneral Education Course
Diversity Course

## HIS-117 Themes in U.S. History

 (New J ersey and Bergen County) is a study of New J ersey from the earliest recorded times to the present. The course examines suburban development, ethnic and minority groups, transportation, political and economic history, and the social and cultural heritage of the county and state.3 lec., 3 credits
HIS-121 M odern Asian History is a
study of modern China, India, and $J$ apan. The course focuses on these societies' traditional cultures and world views and on the alterations and disruptions in these societies as a result of the introduction of W estern values and ideas in the 19th and 20th centuries. 3 lec., 3 credits
IGeneral Education Course Diversity Course


HIS-126 M odern African History is a survey of African History from 1750 to the present. Emphasis is placed on the impact of slavery and western imperialism, the emergence of the new African states since the Second W orld W ar, and the social, cultural, political, and economic development of Africa. 3 lec., 3 credits IGeneral Education Course Diversity Course

HIS-130 Latin Americ an History to Independence is a study of the European and Indian heritage of Latin American civilization. The course examines the development of colonial culture, with special emphasis on its government and economy, and concludes with an analysis of the wars of independence.
3 lec., 3 credits
IGeneral Education Course Diversity Course

HIS-131 Latin American History since Independence is a study of Latin America since 1850. The course analyzes the development of the region's principal countries: Argentina, Brazil, Chile, Colombia, Cuba, and M exico. Regionalism, cultural development, the impact of American and world politics, dictatorships, land reforms, and constitutional issues peculiar to these countries are considered.
3 lec., 3 credits
IGeneral Education Course
Diversity Course

## HIS-135 History of the Middle

East analyzes the rise of Islam with an emphasis on its cultural, intellectual, and scientific contributions to M iddle Eastern civilization. Islam is examined as a religion, as a vast imperial political system, and as an advanced culture. Special attention is given to current mid-east conflicts and to the role of the United Nations in the region. International confrontation and collaboration in the region are examined.
3 lec., 3 credits

## HIS-140 History of the Labor

Movement is an introductory study of the history of the American labor movement. The course examines the origins, grow th, structure, and goals of craft and industrial union; the struggles that went into creating them; their impact on the contributions to society; their political roles; and their present-day efforts and concerns. 3 lec., 3 credits

H IS -H R M
HIS-144 Contemporary American Issues and Problems is a study in an historical context of selected political, social, economic, and diplomatic issues and problems facing the United States in the contemporary world. 3 lec., 3 credits
IGeneral Education Course
HIS-145 Anatomy of Peace is a study in an historical context of peace and war, particularly in the 20th century. Topics considered include diplomacy and peacemaking, arms control, world organizations, non-violence, conflict, and conflict resolution. Relevant ethical, economic, biological, social, political, and psychological issues are examined. 3 lec., 3 credits

HIS-195 Vietnam is a 13-hour television course on the history of American and French involvement in Indochina. Interviews with major figures and ordinary individuals are interspersed with the film footage from a dozen countries (including France and Vietnam) as well as from U.S. news and government archives. 3 credits

## HIS-461-463 Co-Op Work

Experience (History) offers students an opportunity for supervised work in the field of history. J ob assistance is available through the Co-Op office. HIS-461 1 lec., plus 60 minimum hours work experience distributed over the semester, 1 credit
HIS-462 1 lec., plus 120 minimum hours work experience distributed over the semester, 2 credits
HIS-463 1 lec., plus 180 minimum hours work experience distributed over the semester, 3 credits
Prerequisite: Any History course

## HRM - HOTEL/RESTAURANT/ HOSPITALITY

HRM-101 Introduction to Hospitality M anagement is a study of the fundamental principles of hotel, restaurant, and food service operations. Basic managerial and operating functions prevalent in the industry are considered in conjunction with the various job opportuni ties available. 3 lec., 3 credits

HRM-102 Food Protection introduces the principles involved in identification and prevention of food contamination; the role of state, federal and local Public Health regulations; accident prevention; and the safety practices and control measures used in the various food service operations. Students will take the FDA Food Protection Certification exam as part of the course.
2 lec., 2 lab., 3 credits

## HRM-103 Professional Food Preparation Techniques is the

 study of the techniques used in the preparation of such basic foods as vegetables, potatoes, eggs, fish, shellfish, and meats. Theories of grilling, frying, broiling, and sauteing, as well as demonstrations, lectures, and laboratory work on meat cuts and their utilization are included in the course. 1 lec., 4 lab., 3 credits
## HRM-104 Front Office Procedures

is a study of the principles of the organization and operation of public lodging facilities. Front office management and procedures covering duties of the manager, assistant manager, room clerk, night auditor, and cashier are discussed.
1 lec., 2 lab., 2 credits

## HRM-106 Menu Planning and

Nutrition is a study of the principles of menu planning for a variety of food service operations. The preparation of balanced menus to meet differing nutritional needs, the human digestive system, the importance of food and diet to health, and the values of nutrients and calories in maintaining good health are some of the subjects covered in the course.
1 lec., 1 lab., 1 credit

## HRM-108 Computer Applications for the Hospitality Industry intro-

 duces students to computerized recording, forecasting and other analytical procedures used by management to control food and beverage costs. 2 lab., 1 creditHRM-110 Introduction to Baking is a study of the basic theory of baking and the skill of producing baked products. The content of the course includes types of flour, leavening agents, scaling, and icings. Hands-on baking in a laboratory setting includes the production of breads, cakes, pastries, and cookies.
2 lec., 2 lab., 3 credits

HRM-201 Food and Beverage Cost
Control is a detailed study of the cost control procedures found within the hospitality industry. The content of the course includes the factors affecting purchasing, storage, issuing, receiving, and preparation.
1 lec., 1 lab., 1 credit
Prerequisite: HRM-101

## HRM - 202 Quantity Food

Production and Service is a course concentrating upon the student operation of a cafeteria-type food service facility under an instructor's supervision and includes the preparation and senvice of various menu items. Students experience all phases of an institutional food service operation through rotation laboratory assignments. 1 lec., 4 lab., 3 credits Prerequisite or Co-requisite: HRM-103

## HRM-203 Beverage M anagement

 is a study of the history, sources, production, uses, control, and legislation pertaining to alcoholic beverages. Bartending skills and mixology in hands-on laboratory settings are studied. 1 lec., 2 lab., 2 credits Prerequisite: HRM-101HRM-204 Food Purchasing is the study of the types and kinds of meat, poultry, fish, shellfish, fruits and vegetables. An analysis of specifications and techniques in purchasing fresh, frozen, and canned products from commercial purveyors is presented. 1 lec., 2 lab., 2 credits
Prerequisite: HRM-101

## HRM-205 Restaurant Service

Management introduces the principles and techniques of waiting tables and doing table set-ups, and the course includes an analysis of the service management responsibilities associated with the operation of restaurants. 2 lec., 2 lab., 3 credits Prerequisite: HRM-101

## HRM-206 Commercial Restaurant

 Operation is a course concentrating upon the preparation and service of complete menus by students under the direction of program instructors. Students participate fully in the management and operation of a full-service formal restaurant.1 lec., 4 lab., 3 credits
Prerequisite or Co-requisite: HRM-103 or HRM-202

HRM-207 Hotel Sales \&
Convention Planning is a study of the principles and techniques of group sales in the lodging industry. Topics of discussion include feasibility studies, advertising procedures, market development, identification of selling objectives, maximizing room occupancy, long term sales planning, and convention operations.
1 lec., 1 lab., 1 credit
Prerequisite: HRM-101
HRM-212 International Cuisine is a study of the recipes for the preparation of foods from various countries around the world. French, Italian, German, Chinese, J apanese, M exican, and American cuisine are considered.
2 lec., 2 lab., 3 credits
Prerequisite: HRM -103
HRM-213 Classical Garde-M anger
is a study of a wide variety of food decorating and garnishing techniques. Laboratory work includes fruit and vegetable decoration and the preparation of aspic, chaud, froid, hors d'oeuvres, and gelatins.
2 lec., 2 lab., 3 credits
Prerequisite: HRM -103

## HRM-214 Banquet \& Catering

M anagement introduces students to the skills necessary to be qualified, competent and creative foodservice specialists. 2 lec., 2 credits Prerequisites: HRM-101

## HRM-215 Food Service

Management familiarizes students with the responsibilities of a food service manager by allowing the student to select and to research an operating food service. By concentrating research efforts upon the selected site, students will learn of the interdependence among personnel and of the personal and professional relationships between personnel at each level of production and supervision. 2 lec., 2 credits
Prerequisite: HRM-101
HRM-216 Food Service Facilities Planning includes blueprint interpretation, principles of design, and layout rendering to redesign an existing food service facility. This course also focuses on the development of work analysis and flow charts for selection and placement of equipment in production, storage, and dining areas.
1 lec., 2 lab., 2 credits
Prerequisite: HRM-101

HRM-217 Issues in the Hospitality
Industry includes the evaluation of selected food service units; a discussion of current concerns and issues common to all food services; and contemporary trends in the application of advanced technology, menu implementation strategies, marketing strategies, beverage management, and personnel management.
2 lec., 2 credits
Prerequisite: HRM-101

## HRM-220 Advanced Baking

Techniques continues the theory of baking and the skill of producing baked products. Laboratory w ork includes elaborate cake and pastrymaking, show piece desserts, and delicate marzipan, sugar and chocolate presentations. 2 lec., 2 lab., 3 credits Prerequisite: HRM -110

## HRM-221 Contemporary Garde-

Manger is a continuation of the techniques of decorating, displaying and garnishing food, emphasizing contemporary foods for contemporary tastes. Laboratory w ork not only includes contemporary foods reduced in calories and fats but also planning and presentation of food for buffets and other functions in a wide variety of business and social settings, food modeling, and food photography.
2 lec., 2 lab., 3 credits
Prerequisite: HRM-103

## HRM-462 Co-Op Work Experience

 (Hotel/Restaurant/Hospitality) requires part-time employment by the student in a college-approved business organization to help the student gain insight into marketing and administrative practices of the industry. This paid work experience is supervised and coordinated by a faculty member. Hospitality industry related jobs are required and must be approved by a faculty coordinator. J ob assistance is available through the Co-Op office.1 lec., plus 179 minimum hours work experience distributed over the semester, 2 credits.
Prerequisite: HRM-101

## HRT - HORTICULTURE

## HRT-101 Fundamentals of

 Hortic ulture is designed to acquaint the student with the multi-faceted field of ornamental horticulture. Topics for examination include the historical role of horticulture from both the artistic and scientific perspectives, as well as its commercial and aesthetic significance and applications for the future. Discussion of current employment opportunities, trends and practices will be emphasized. Noted guest Ilecturers from all fields of horticulture will share their views and experiences.2 lec., 3 lab., 3 credits

## HRT-102 Plant and Soil Science

is designed to familiarize the student with the horticultural relationship of plants to botanical anatomy and function, including the limiting factors that influence plant grow th such as light, temperature, water and nutrients. The characteristics of soils, soil nutrient deficiencies, fertilizers and soil amendments, as well as their relationship to plant grow th will be covered.
3 lec., 3 lab., 4 credits

## HRT-103 Turf and Grounds

M anagement is the study of turf and plant practices on the residential and commercial sites. Emphasis is placed on the structure and grow th habit of commonly used species and cultivars including installation, renovation and maintenance practices. Exposure to grounds maintenance equipment commonly utilized in the installation and maintenance of the landscape is included. 2 lec., 3 lab., 3 credits

## HRT-104 Landscape Plants and

 Materials I is an introduction to the basic genera of the most commonly utilized trees, shrubs and ground covers in the landscape. In addition to identification, grow th form, color, texture and habitat requirements, and their uses in the residential and commercial sites will be studied.1 lec., 2 lab., 2 credits

## HRT-112 Pests of Ornamental

Plants introduces the student to the insects, diseases, and environmental disorders that affect plants. Identification of pests and methods of controlling them are emphasized. 3 lec., 3 lab., 4 credits

HRT-113 Principles of Land-
scaping is a study of the design and development of landscape plans from plot plans and site analysis studies. Instruction in drafting and mechanical skills is included.
2 lec., 3 lab., 3 credits
Prerequisite: HRT-104
HRT-115 Floral Design is a study of the plants, supplies, and design skills used in flower arranging. Laboratory experiences include seasonal and non-seasonal arrangements for a variety of occasions. 2 lec., 3 lab., 3 credits

HRT-119 Floriculture is a study of the management practices of field and greenhouse production of foliage and floral crops. Emphasis is placed on the commercial practices of purchasing, programming, cultural production, storage, handlling, and sales of cut flowers and potted plant crops. The chain-of-life concept is discussed as it relates to the consumer's aesthetic use of cut flowers and plants. 2 lec., 3 lab., 3 credits

## HRT-120 Interior Plantscaping

acquaints the student with interior plant materials, with emphasis on their cultural requirements, maintenance practices and key ornamental aspects. Basic business applications regarding installation and maintenance contracts are covered. Emphasis will be placed on selection of appropriate plants in environments calling for a balance of human needs and plant culture.
2 lec., 2 lab., 3 credits

## HRT-123 Introduction to

Horticultural Therapy acquaints students with the use of plants, greenhouses, gardens and other natural environments in the treatment and rehabilitation of special populations, including the elderly, physically, psychiatrically and emotionally challenged and developmentally disabled. Experiences include visits to community gardens and facilities utilizing horticulture therapy techniques. 2 lec., 3 lab., 3 credits

## HRT-130 Landscaping Contracting

 is a study of the basic requirements for developing landscape contracts and the writing of detailed specifications. Ethical practices and professional relationships among the client, consultant, contractor, other allied professions, and employees are also studied. Project costs and fee determination procedures are presented and simulated in the lab. 1 lec., 1 lab., 1 creditHRM-HRT
HRT-204 Landscape Graphics and
Design emphasizes the techniques for formulating, presenting, and drafting landscape designs. In addition, the basic design elements of planting , including form, texture, color, and sequence of bloom, and ecological associations will be studied.
1 lec., 2 lab., 2 credits
Prerequisite: HRT-104

## HRT-230 People/Plant

Relationships enables the student to design therapeutic horticulture programs for a wide range of settings and people populations. Specific disabilities are explored and students learn to set realistic client goals with the appropriate horticultural activities to meet them. Careers and professional registration is covered.
3 hours, 3 credits
Prerequisite: HRT-123
HRT-231 Nature Crafts teaches students methods for incorporating craft projects, using natural materials, into a horticulture therapy program.
Demonstrations into the use of dried flow ers, foliage and herbs in specialized craft projects, structured to meet the needs and capabilities of special populations, are stressed. Projects include instruction in necessary materials and methods for creating holiday items, soft sculpture, natural cosmetics, living w reaths and potpourri.
1 lec., 2 lab., 2 credits
Prerequisite: HRT-123

## HRT-232 Greenhouse

Management and Propagation is designed to familiarize the student with the techniques, facilities and materials needed for plant propagation in the greenhouse. Techniques of both vegetative and sexual reproduction of herbaceous and woody plants, as well as greenhouse crops and crops for the interior landscape will be covered. 3 lec., 3 lab., 4 credits Prerequisite: HRT-102

## HRT-233 Landscape Plants and

 M aterials II places emphasis on the identification, culture and use of both native and cultivated herbaceous materials used in the landscape and further continues with the identification and use of more specialized and unique woody plant materials. Laboratory and field exercises include studies and demonstrations of their applications and uses in both natural and designed settings.3 lec., 3 lab., 4 credits
Prerequisite: HRT-104 or by permission of Department Head

HRT-IN F
HRT-234 Commercial Floral Design and M anagement introduces the student to the production methods encountered in a commercial floral operation. Flow er selection, basic and specialized supplies and their uses in all phases of the commercial operation will be discussed and demonstrated. In addition to designs of special occasion arrangements, students will be exposed to various marketing aspects of the floral industry including purchasing, sales and profitability. 3 lec., 3 lab., 4 credits
Prerequisite: HRT-115 or by permission of Department Head

HRT-235 Landscape Site Analysis and Construction acquaints the student with the different sites encountered by the landscape contractor, emphasizing appropriate planning in the development of both residential and commercial properties. Construction considerations will include drainage, irrigation, structures and the selection of materials. The integration of site analysis and construction materials in student projects will be stressed.
2 lec., 3 lab., 3 credits
Prerequisite: HRT-104

## HRT-236 Hortic ulture M arketing

and Sales introduces the student to concepts relating to preparation for a career in horticulture. Field studies into horticultural businesses, group discussions and consultations with industry professionals assist in formulating effective strategies and planning for a profitable business. Included are discussions of basic principles of marketing, current industry trends and sales.
3 lec., 3 credits
Prerequisite: HRT-101

## HRT-462 Co-Op W ork Experience

(Horticulture) is a supervised work experience program which includes paid employment at an approved horticultural establishment and attendance at a weekly seminar. The course is designed to provide students with opportunities to learn and to practice skills under professional guidance. The area of placement will depend upon the students backgrounds and interests. J ob assistance is available through the Co-Op office.
1 lec., plus 168 minimum hours work experience distributed over the semester, 2 credits. Prerequisite: any HRT course

## INF - INFORMATION <br> TECHNOLOGY

(Formerly Data Processing)

## INF-101 Introduction to

 Information Technology is an overview of the principles and procedures of processing data using computers. Topics include principles of computer operations, input/output devices, storage facilities, computer systems, programming concepts, computerized business applications and the Internet. In the lab, students work with M icrosoft W indows-based business softw are packages.2 lec., 2 lab., 3 credits
(Students in Liberal Arts and Sciences should consider M AT-158 and M AT165)

## INF-107 M ini-Computer

Operations prepares the student to use the IBM AS/400 System. Topics include database concepts, display files control language commands, and source entry utility.
2 lec., 2 lab., 3 credits

## INF-108 PC Upgrade,

M aintenance and Diagnosis is for the microcomputer user with no technical background. Students assemble and upgrade a PC by adding memory, floppy/hard drives, tape backups, modems, monitors and controller cards. Students format disks, perform procedures to speed-up processing, make system configuration changes and communicate using modems. Student also perform maintenance, diagnostic, and troubleshooting procedures, and, are advised when and where to go for major repairs. 2 lec., 2 lab., 3 credits

## INF-112 Mic rosoft Window s is

designed to show students how to use this popular graphical users interface (GUI). Topics include: using the Windows interface, navigating the W indows environment, customizing W indows, organizing applications, managing files, directories, and disks. Additional topics covered are: writing with W indows-supplied word processor and using W indows Accessories. Some advanced W indows features may also be included. 2 lab., 1 credit

INF-114 M ic rosoft Office uses pro-ject-based exercises to teach the fundamentals of the M icrosoft Office suite - specifically, W ord (w ord processing), Excel (spreadsheeting), Access (database), and Pow erPoint (presentation). For more comprehensive instruction or M icrosoft certification, students should consider taking the individual courses OFF-116 or OFF-240 (W ord), INF-124 (Excel), INF151 (Access), or OFF-150
(Pow erPoint) instead.
2 lec., 2 lab., 3 credits

## INF-124 M ic rocomputer

Spreadsheet: EXCEL is a hands-on experience of a state-of-the-art electronic spreadsheet. The course will provide step-by-step instruction in the various commands necessary for spreadsheet creation and the manipulation and management of spreadsheets. All lab work is done on a M icrosoft W indows processing platform. 2 lab., 1 credit

## INF-140 Introduction to

Multimedia is a course that introduces the student to the various applications of computer-based multimedia in industry, government, education, and entertainment. Hardw are systems, videodisc design, flow charts, software tools, scripts, and production will be covered. Students will work in groups to design and prepare a multimedia presentation. 2 lec., 2 lab., 3 credits

## INF-141 Web Publishing with

 HTML introduces the basic concepts and techniques for developing world wide web (WW W) pages using Hypertext M arkup Language. Students learn the principles of the WW W including presentation, site, web page, and homepage as well as developing a storyboard. HTM L instruction will include generating web pages, creating links, using images, animation, sound and video files. M ore advanced HTM L concepts, such as frames, tables, and linked windows may also be discussed. 2 lab., 1 creditCo-requisite: INF-162 or by permission of the Department Head

INF-142 Window s NT provides an overview of the Windows NT processing environment. This includes the principles of the task bar, controlling window, and using the explorer. Students also learn customizing the system, managing disks, files, and printers as well as using the command window. Advanced NT concepts such as understanding the registry, controlling communications, effective networking and security will also be covered.
1 lec., 2 lab., 2 credits
(Students processing on a Microsoft Windows platform other than W indows NT need consider INF-112)

INF-143 Web Publishing with Front Page introduces the student to the principles involved in creating WWW home pages and web sites. Students leam how to use the various tools to make exciting and informative Web pages applying this popular M icrosoft Package. Exercises are given that allow students to design, develop and upload their Web pages onto the Internet without web-based programming. Web site management strategy are also discussed. 2 lab, 1 credit
Co-requisite: INF-162 or by permission of the Department Head

## INF-144 Window s NT Desktop

 Operations introduces the student to the basics of the Microsoft W indows NT W orkstation desktop. Topics include desktop composition and configuration within a multitasking environment; computer and disk management; file organization; interfacing with other M icrosoft products; mastery of various Windows accessories; embedding and linking objects; printers and fonts; and commanding end-user networking issues. 2 lab., 1 credit(Students processing on a M icrosoft Windows 95 or 98 platform need consider ! NF-112.)

## INF-145 Introduction to Visual

 Basic for Business provides effective hands-on instruction in an eventdriven, high level programming language, using a series of tools to design and control object-oriented graphical user interfaces in an integrated development environment. All lab work is done on a Microsoft W indows processing platform. 2 lec., 2 lab., 3 credits Co-requisite: INF-101, INF-150 or by permission of the Department HeadINF-146 Web Development Using HTM L uses Hypertext M ark-Up Ianguage in the development and composition of Web pages. Students author pages that ultimately include tables, forms, graphic elements, frames, and client side image maps. Stye sheets and embedding precoded applets into pages will also be covered. The student will develop and upload a completed Web site applying all concepts learned. This course assists in preparation for Level 1 CIW certification. 2 lec., 2 lab., 3 credits Co-requisites: INF161 or INF162 or INF163 or permission of the Department Head

## INF-150 Business Programming

Logic develops and reinforces the student's logical thought processes using proper design techniques and tools, especially flow charting. Topics include exploration of business programming considerations, such as input of data, output of information, accuracy and reliability, the use of objects and object-oriented programming, as well as data structures. Topics under data structures include linked-lists, hyper-linking, stacks, queues, trees, and traditional file structures. 2 lec., 2 lab., 3 credits Prerequisite: M AT-035 or by $M$ athematics testing Co-requisite: INF-101 or by permission of the Department Head

## INF-151 Microcomputer

Database: Access is a hands-on experience of a relational database management system. The course entails developing database management projects starting with the design of the structure of a database, entering and editing data, designing multitable queries, and creating forms and reports. Various techniques of database applications development will be implemented. All work will be done on a M icrosoft Windows processing platform. 2 lab., 1 credit

## INF-152 C/C++ Programming for

 Business provides the foundations of both the procedural C language and its C++subset. Students code business application programs applying C/C + operators, constructs, and functions. Topics covered include language version differences, definition of variables; math, relational, and logical operators; while and for loops; pointers; scope and passing values; as well as the language's various functions.2 lec., 2 lab., 3 credits Co-requisite: INF-150 or by permission of the Department Head

## INF-160 Netw orking Technologies and Data

 Communications offers a comprehensive coverage of netw orking and data transmission key terms, concepts, and development strategies. Topics include: the history of network development; netw ork media; netw ork protocols; netw ork/data transmission theory (OSI layers and IEEE standards); netw ork types; netw ork design; server/client configuration; netw ork administration; network remote access; wide area networks; and netw ork troubleshooting. The course prepares the student for the netw ork theory M CSE test offered by M icrosoft and assists in preparation for Level 1 CIW certification. 3 lec., 3 credits
## INF-161 Internet Research and Data Handling provides an in-

 depth view of the Internet and is designed to meet both professional and research needs. Topics include advanced searching strategies and techniques; data mining; information integrity and intellectual property; FTP sites ; dow nloads; file types and their integration into applications; and Telnet and connectivity issues. 2 labs., 1 credit
## INF-162 Introduction to the

Internet introduces the necessary skills to access the Internet using leading Internet browsers. Topics covered include the W orld W ide W eb, its components and organization; URL's; browsing W eb pages; Web management techniques; saving and printing; fundamental techniques for searching using various search engines; sending and receiving electronic mail; mail management techniques; reading and posting new sgroup articles, conversing and chatting; and popular W eb sites. 2 lab., 1 credit

## INF-163 Internet Concepts and

 Applications provides comprehensive coverage of the Intemet. Topics include the Internet's history; its composition and technologies; protocols; electronic mail systems; browser and W orld Wide Web concepts; source integrity; searching the Web for research and gaining market intelligence; commanding FTP, new sgroups, gopher, and Telnet; and objects, plugins and view ers. This course assists in preparation for Level 1 CIW certification. 2 lec., 2 lab., 3 creditsIN F-202 COB OL Programming provides effective hands on business application programming instruction using the COBOL language. Topics include defining, describing, and editing data, implementing selection and iteration structures, sorting and searching, table handling, as well as file access methods. Depending on availability, lab work will be done using either IBM -mainframe emulation or Microfocus COBOL W orkbench. 2 lec., 2 lab., 3 credits
Co-requisite or Prerequisite: INF-150 or permission of the Department Head (Computer Science, M ath, and
Science students take MAT-275)

## INF-208 Systems Analysis and

Design treats the effective use of equipment and management tech niques in meeting the information needs of the contemporary business world. The techniques of analysis, specifications, selection, and implementation tread the design of an optimal information system. 3 lec., 3 credits
Prerequisites: ACC-101, BUS-101, (INF-161 or INF-162), and (INF-145 or INF-202 or INF-152 or INF-242) or permission of the Department Head Computer Science students should take M AT-289

## INF-217 Database for Business

Applications focuses on database design, implementation, and administration. Topics of discussion include database development, database design, fundamentals of input/output, processing, file organization, as well as interfacing between application programming languages and a database management system (DBM S). 3 lec., 3 credits
Prerequisites: INF-208 or by permission of the Department Head

## INF-224 Advanced C++ <br> Programming for Business is a

continuation of $\mathrm{C} / \mathrm{C}++$ Programming for Business. Students code business application programs in a complete object-oriented environment applying advanced concepts such as templates, inheritance, polymorphism, C style input/output streams, object-pointers, functions, the persistence of objects, and attributes. 2 lec, 2 lab., 3 credits Prerequisite: INF-152 or pemission of the Department Head

INF-225 UNIX Operating System
presents a complete overview of the UNIX system. Students learn the concepts of UNIX-processes, multi programming, and interactive computing. By using a standard UNIX text editor with hands on practice, students learn major UNIX commands and how to interact with the UNIX command processor. 2 lab., 1 credit
Prerequisites: INF-101 or M AT-158 or by permission of the Department Head

INF-226 Advanced UNIX will present an in-depth view of UNIX. Topics include advanced shell programming, filters, advanced commands, communications, netw orking concepts, with discussions on the internal aspects of the UNIX operating system.
2 lab., 1 credit
Prerequisite: INF-225
INF-228 Advanced EXCEL is a continuation of Microcomputer Spreadsheet: EXCEL. It focuses on creating and using macros, linking files, databases, graphics and other advanced spreadsheet topics. All lab work is done on a M icrosoft Windows processing platform. 2 lab., 1 credit Prerequisite: INF-124 or by permission of the Department Head

INF-232 Window s NT provides the skills necessary to install, configure, customize, and troubleshoot M icrosoft Windows NT in a single-domain W indows NT-based netw ork. Students will learn how to integrate W indows NT and Novell NetW are Netw orks. This course prepares the student to meet certification requirements to become a Microsoft Windows NT Certified Professional. It is intended for those who support or administer the NT server and W orkstation 4.0 or who are on the M CSE W indows NT 4.0 Track. Issues relating to Windows 2000 will also be explored. The course will also assist in preparing to sit for MCP exams 70-073 and 70-067. 2 lec., 2 lab, 3 credits.
Prerequisite: INF-144 and INF-160 or by permission of the Department Head

INF-235 Advanced PC Upgrade, Maintenance and Diagnosis focuses on upgrading Pentium computers. Students install, configure and use a mouse, scanner, answer machine/FAX card, make cables, install video, configure pin connections, utilize printer caching and buffering techniques, and perform printer maintenance. Students apply advanced connectivity techniques by installing, configuring and using a local area netw ork..
2 lec.., 2 lab., 3 credits
Prerequisite: INF-108 or by permis sion of the Department Head

## INF-237 Introduction to Business

 Applications of Expert Systems is an overview of the concepts and business applications of expert systems. Topics include expert systems characteristics, components of expert systems, and methods of know ledge acquisition. Emphasis is placed on business applications and implementation issues. One or more microcomputer-based expert system shells will be demonstrated and use by students to create an expert system prototype(s) in the lab. 2 lec, 2 lab., 3 credits Prerequisite: INF-208 or by permission of the Department Head
## INF-239 Applications

Development is a capstone course using the case study approach to the design and implementation of an automated business system. Students w ork in groups to develop a logical and physical design for a contemporary application, from which the solution can be coded, programmed, and tested. The final project contains the full scope of systems and programming documentation.
2 lec., 2 lab., 3 credits
Prerequisites: INF-208, (INF-151 or INF-245), and (INF-243 or INF-246) or permission of the Department Head

## INF-241 J ava for Business

Applications provides effective hands-on instruction in this pow erful and versatile object-oriented language. Students develop standalone business applications as well as applets that run in J ava enabled environments such as Netscapes Navigator. Topics include fundamental syntax and J ava programming tools, working with objects, arrays, conditionals and loops, creating classes, threads, graphics, fonts, and color. Some advanced concepts such as animation, images, and sound may also be included.
2 lec., 2 lab., 3 credits Prerequisite: INF-162 or permission by the Department Head Co-requisite: INF-150 (Know ledge of another object-oriented programming language is helpful, not required)

## INF-242 RPG/400 Programming

 acquaints the student with the fundamental skills of a beginning RPG programmer. Students write programs using screen processing and structured programs using DO, DOU, DOW and IF/ELSE. 2 lec., 2 lab., 3 credits Prerequisite: INF-107 or by permission of the Department HeadCo-requisite: INF-150

## INF-243 Advanced RPG/400

Programming is a continuation of RPG/400. Topics include data validation, disk file maintenance, direct and add files. AS/400 files, and interactive processing.
2 lec., 2 lab., 3 credits Prerequisite: INF-242 or by permission of the Department Head

## INF-245 Database: SQL,

Struc tured Query Language, is a hands-on experience of IBM s state-of-the-art database management system. The course entails designing a data management project using techniques including entering and updating data; data retrieval; queries and subqueries; joining files; sorting; and using built-in database functions. 2 lab., 1 credit
Prerequisite: INF-101 or INF-124 or INF-151

## INF-246 Advanced Visual Basic

 for Business continues effective hands-on instruction in the event-driven, high level programming language, Visual Basic. Emphasis is on programming, using object-oriented graphical user interfaces in an integrated development environment. All work is done on a M icrosoft W indows processing platform. 2 lec., 2 lab., 3 credits Prerequisite: INF-145 or by permission of the Department Head
## INF-248 ActiveX Control Development Using Visual Basic

 provides the Visual Basic programmer with effective hands-on instruction in developing ActiveX controls and programming them for Web page applications and active documents. Topics include creating ActiveX clients, Active $X$ code components and controls. 2 lab, 1 credit Prerequisites: INF-162 or INF-262, INF-246
## INF-249 Visual C++ for Window s

with M FC provides the C+t programmer with effective hands-on instruction in developing Visual C+ applications using M icrosoft Foundation Class Library (M FC). This course introduces W indows programming concepts using W indows resource identifiers, dialog boxes, and controls. In addition, the course will cover the use of Visual C++for developing stand-alone interactive applications. 2 lec., 2 lab, 3 credits Prerequisite: INF-224 or by permission of the Department Head

## INF-251 Advanced Access will

focus on using the more powerful features of $M$ icrosoft Access including the organization of multiple data bases, advanced methods of query, programming, and data manipulation. All work will be done on a M icrosoft W indows processing platform. 2 lab., 1 credit
Prerequisite: INF-151 or by permission of the Department Head

INF-255 Netw ork Planning and Design provides students with a vendor-neutral approach to designing and implementing local and wide area netw orks. Topics include developing a netw ork plan for the organization; LAN/W AN interconnectivity issues; physical transmission equipment and options; bandw idth considerations; TCP/IP and its relationship to the netw ork design; and the advantages and disadvantages of netw ork protocol architecture implementation. 3 lec., 3 credits Prerequisites: INF-160 and INF-163 or permission of Department Head

## IN F-256 Topics In Netw orking

focuses on the latest advances in netw orking theory and administration. Students study topics that are of current relevance within this dynamic and fast growing field. As the topics will change each semes ter, emphasis will be on identifying changes in netw orking standards and protocols; media, architecture and hardw are; netw ork security; shifts in vendor product and market share; and future technologies. Students are expected to use the Internet as a key fact-finding resource. 3 lec., 3 credits Prerequisites: INF-160 and (INF-161 or INF-162 or INF-163) or by permission of the Department Head

## INF-257 Netw ork Trouble

Shooting establishes the methodologies and tools necessary to proactively troubleshoot computer netw orks. Topics covered include: methods for identification and repair strategies for network faults caused by user, hardw are, and softw are problems; disaster recovery and backup plans; netw ork management record keeping; configuration management; and patch/service release installation procedures.
2 lec., 2 lab., 3 credits
Prerequisite: INF-232 or by permission of the Department Head

INF-258 TCP/IP examines Transmission Control Protocol (TCP/IP) concepts with emphasis on planning, deploying and managing a TCP/IP netw ork. Topics include the configuration and logistics of TCP/IP netw orks; IP addressing and subnetting; M ulticast IP; M obile IP; IPv6; FTP and Remote Access Protocol (PPP and SLIP). Students will learn how to troubleshoot and manage TCP/IP networks using a packet sniffer, TCP/IP utilities, and protocols such as Internet Control M essage Protocol (ICM P).
2 lec., 2 lab., 3 credits.
Prerequisite: INF-160 or permission of the Department Head

## IN F- 260 Technic al Support

Operations introduces students to both the methodological and handson customer-service related world of end user support. Course topics include understanding the support profession and models; customer service; mission statements and service level agreements; implementing a help desk; troubleshooting; procurement; outsourcing; evaluation measurements; help desk certification. Lab topics include application installation; software and virus troubleshooting; call tracking; remote support; and support documentation. Students will complete an individual support project with documentation. 2 lec., 2 lab., 3 credits.
Prerequisite: INF-108, (INF-112 or INF-144), INF 161 or (INF-162 or INF163) or by permission of the Department Head

## INF-263 Programming the Internet

 develops Internet Computer Gatew ay Interface (CGI) applications used to process online transactions, provide animation and other dynamic elements using Perl programming language. Students will study the underlying concepts of CGI in addition to Perl basics, data structures, I/O, functions and reporting.2 lec., 2 lab, 3 credits Prerequisites: INF-161 or INF-162 or INF-163 or by permission of the Department Head

## INF-461-464 Co-Op Work

 Experience (Information Technology) are recommended electives designed to provide the INF student with part-time paid work experience in an office of his/her specialty. The student has the opportunity to learn and practice data processing skills under professional guidance in a college-approved work environment. Evaluation visitations are performed by a trained faculty member. All student appointments must be approved by the Co-Op Coordinator. J ob placement assistance is available through the Co-Op office.Prerequisite: INF-101 or by permission of the Department Head
INF-461 1 lec; plus 60 minimum hours work experience distributed over the semester, 1 credit INF-462 1 lec; plus 120 minimum hours work experience distributed over the semester, 2 credits INF-463 1 lec; plus 180 minimum hours work experience distributed over the semester, 3 credits INF-464 1 lec; plus 240 minimum hours work experience distributed over the semester, 4 credits

## IST - INTERDISCIPLINARY STUDIES

## IST-121 College Freshman

Seminar is a freshman year experience course which combines academic subject matter and substantial writing assignments in a discipline context established by the individual instructor. This course provides a learning opportunity for the new student which includes communication skills, critical reasoning, problem solving, study skills, time management, and goal setting. The objective of this course is to help students understand the value and benefits of higher education as a life experience. 3 lec., 2 credits

## IST-201 Patterns of Leadership

 explores the aspects of effective leadership. Students employ critical reasoning skills, problem solving, and communications in order to identify and develop their ow $n$ leadership philosophy. Topics of study include the concepts of leadership, historical perspectives, personal skill development, lleadership in organizations, and contemporary leadership. 3 lec., 3 credits Prerequisites: SPE-111 and W RT-101IN F-LA N IST-463 Internship-Disney College Training Program (CTP) is a work experience at Walt Disney W orld in Orlando, Florida. Students reside on the Disney property, attend weekly seminars, and are employed at Walt Disney W orld, Epcot, or M GM studios. Students will be assigned positions at various facilities, attractions, hotels, or restaurants. Students pursue learning objectives and assignments as required by BCC faculty coordinator. 180 minimum hours work experience distributed over the semester, 3 credits
Prerequisite: Acceptance by the Disney Corporation

## LAN - WORLD LANGUAGES \& CULTURES

Placement Policy for Students of World Languages and Cultures Students interested in studying a world language at Bergen Community College, may choose to either begin a new one or continue the language studied previously. Students who have studied a world language in high school and have received a grade of B or better, should enroll in the appropriate BCC course as follows:

Years of study Register In
Up to one year Level I courses
(i.e., French I)

Two years Level II courses (i.e., French II)

Three or more Level III courses (i.e.., Intermediate French I)

Check the BCC registration booklet for current course offerings

Native or near native speakers of Spanish must enroll in special courses designed for their needs: Elementary Spanish for Heritage Speakers and/or Intermediate Spanish for Heritage Speakers. Admission is by permission of the Academic Coordinator or the Dean of Arts and Humanities.

LAN-011 Directed Studies in French is a program of computer-assisted individualized instruction allow ing the student to concentrate on grammatical structures, vocabulary, syntax, orthography, and sentence structure. The course is designed for students who wish to supplement regular classroom instruction in French and may be taken prior to, concurrently with, or after basic courses.
1 hour, 1 non-degree credit

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LAN-104 French for Tourists is designed to equip the tourist with the basic vocabulary and idiomatic expressions essential to travel in France and French-speaking countries. Conversations develop audio-lingual skills and do not concentrate on formal grammatical problems. The course offers insight into the culture of Frenchspeaking countries in an effort to familiarize the tourist with the customs of these countries.
2 lec., 2 credits

## LAN-106 Spanish for Tourists is

 designed to equip the tourist with the basic vocabulary and idiomatic expressions essential to travel in Spanish speaking countries. Conversations develop audio-lingual skills and do not concentrate on formal grammatical problems. The course offers insight into the culture of Spanish-speaking countries in an effort to familiarize the tourist with the customs of these countries. 2 lec., 2 credits
## LAN-107 Italian for Tourists is

 designed to equip the tourist with the basic vocabulary and idiomatic expressions essential to travel in Italy. Conversations develop audio-lingual skills and do not concentrate on formal grammatical problems. The course offers insight into the culture of Italy in an effort to familiarize the tourist with the customs of the country. 2 lec., 2 creditsLAN-109 Culinary French provides initiation into authentic French pronunciation, practical vocabulary, and the technical terminology of the fine art of French cuisine. Students explore the cultural and theoretical foundations of the French way of preparing and serving food. The course offers guidance in reading cookbooks and menus to the aspiring French or continental cook. 2 lec., 2 credits

LAN-110 French I is an introduction to the pronunciation, basic comprehension, and communication of French through active class use of simple vocabulary, grammar, and syntax. This course is recommended for students who have had two or less (including no) years of previous high school study of this language. Students with more than two years prior study should consult with the Academic Coordinator of the Foreign Language Discipline for course placement guidance.
3 lec., 1 lab., 3 credits
IGeneral Education Course

LAN-111 German I is an introduction to the pronunciation, basic comprehension, and communication of German through active class use of simple vocabulary, grammar, and syntax. This course is recommended for students who have had two or less (including no) years of previous high school study of this language. Students with more than two years prior study should consult with the Academic Coordinator of the Foreign Language Discipline for course placement guidance.
3 lec., 1 lab., 3 credits
IGeneral Education Course
LAN-112 Italian I is an introduction to the pronunciation, basic comprehension, and communication of Italian through active class use of simple vocabulary, grammar, and syntax. This course is recommended for students who have had two or less (including no) years of previous high school study of this language. Students with more than two years prior study should consult with the Academic Coordinator of the Foreign Language Discipline for course placement guidance.
3 lec., 1 lab., 3 credits
IGeneral Education Course
LAN-113 Spanish I is an introduction to the pronunciation, basic comprehension, and communication of Spanish through active class use of simple vocabulary, grammar, and syntax. This course is recommended for students who have had two or less (including no) years of previous high school study of this language. Students with more than two years prior study should consult with the Academic Coordinator of the Foreign Language Discipline for course placement guidance.
3 lec., 1 lab., 3 credits
IGeneral Education Course
LAN-114 Russian I is an introduction to the pronunciation, basic comprehension, and communication of Russian through active class use of simple vocabulary, grammar, and syntax. This course is recommended for students who have had two or less (including no) years of previous high school study of this language. Students with more than two years prior study should consult with the Academic Coordinator of the Foreign Language Discipline for course placement guidance. 3 lec., 1 lab., 3 credits IGeneral Education Course

LAN-117 French for Business and Industry is designed for students, secretaries, and other personnel in the fields of international business and industry. It emphasizes practical vocabulary, technical terminology, and oral and written communication in the world of commerce and industry. Students learn professional translating techniques and the proper use of specialized dictionaries and other reference materials in English and French. 3 lec., 3 credits

## LAN-118 German for Business and Industry is designed for students,

 secretaries, and other personnel in the fields of international business and industry. It emphasizes practical vocabulary, technical terminology, and oral and written communication in the world of commerce and industry. Students learn professional translating techniques and the proper use of specialized dictionaries and other reference materials in English and German. 3 lec., 3 creditsLAN-120 J apanese I is an introduction to the pronunciation, basic comprehension, and communication of J apanese through active class use of simple vocabulary, grammar, and syntax. This course is recommended for students who have had two or less (including no) years of previous high school study of this language. Students with more than two years prior study should consult with the Academic Coordinator of the Foreign Language Discipline for course placement guidance.
3 lec., 1 lab., 3 credits
IGeneral Education Course
LAN-144 Irish I is an introduction to the pronunciation, basic comprehension, and communication of Irish through active class use of simple vocabulary, grammar, and syntax. This course is recommended for students who have had two or less (including) no years of previous high school study of this Gaelic language. Students with more than two years prior study should consult with the Academic Coordinator of the Foreign Language Department for course placement guidance.
3 lec., 1 lab., 3 credits
IGeneral Education Course

## LAN-150 Spanish for the Health

 Professions is designed to enable those people in health career programs/professions and members of the public to communicate in Spanish with health-care personnel, patients, and clients.3 lec., 3 credits

## LAN-203 Advanced French

Conversation promotes authenticity of accent and fluency in oral communication French via a multimedia approach that encourages in-depth discussion and study of current cultural and literary events in Frenchspeaking countries. Students receive individualized instruction in advanced syntax and vocabulary. 3 lec., 3 credits
Prerequisite: LAN-201 or equivalent placement

## LAN-206 French Literature of the

 19th Century is a study of the literary and theatrical works of the French symbolists, the pre-romantics,Baudelaire, and other 19th century French writers. 3 lec., 3 credits Prerequisite: LAN-201 or equivalent placement

## LAN-207 French Culture and

 Civilization surveys the unique geography, pertinent history, significant literary, and artistic movements, and the current socio-political role of France in the world. The course discusses contributions to world agriculture, industry and intemational trade. The course is taught in French using a variety of media and may provide out of-class learning opportunities.3 lec., 3 credits
Prerequisite: LAN-200 or equivalent placement

LAN-210 German II offers students an opportunity to enhance their skills in the speaking, reading, writing, and comprehension of German through active class use of vocabulary, grammar, and syntax.
3 lec., 1 lab., 3 credits
Prerequisite: LAN-111 or equivalent placement
IGeneral Education Course

## LAN-211 Intermediate German I

expands students German vocabulary and enhances their conversational ability. The course is conducted entirely in German and features extensive discussion of contemporary Germany and some grammar review. 3 lec., 3 credits Prerequisite: LAN-210 or equivalent placement
IGeneral Education Course
LAN-212 Intermediate German II is
conducted entirely in German and develops students' German communication skills through a study of the cultural history of Gemany.
3 lec., 3 credits
Prerequisite: LAN-211
IGeneral Education Course

## LAN-213 Advanced German

Conversation promotes authenticity of accent and fluency in oral communication in German via a multimedia approach that encourages in-depth discussion and study of current cultural and literary events in Germanspeaking countries. Students receive individualized instruction in advanced syntax and vocabulary.
3 lec., 3 credits
Prerequisite: LAN-211 or equivalent placement

## LAN-217 German Culture and

 Civilization surveys the unique geography, pertinent history, significant literary and artistic movements, and the current socio-political role of Germany in the world. the course discusses Germany's contributions to world agriculture, industry and intemational trade. The course is taught in German using a variety of media and may provide out-of-class learning opportunities. 3 lec., 3 creditsPrerequisite: LAN-210
LAN-220 Italian II offers students an opportunity to enhance skills in the speaking, reading, writing, and comprehension of Italian through active class use of vocabulary, grammar, and syntax. 3 lec., 1 lab., 3 credits Prerequisite: LAN-112 or equivalent placement
IGeneral Education Course

## LAN-221 Intermediate Italian I

 expands students Italian vocabulary and enhances their conversational ability. The course is conducted entirely in Italian and features extensive discussion of contemporary Italy and some grammar review.3 lec., 3 credits
Prerequisite: LAN-220 or equivalent placement
IGeneral Education Course
LAN-222 Intermediate Italian II is
conducted entirely in Italian and develops students Italian communication skills through a study of the cultural history of Italy. 3 lec., 3 credits Prerequisite: LAN-221
IGeneral Education Course

## LAN-223 Advanced Italian

Conversation promotes authenticity of accent and fluency in oral communication in Italian via a multimedia approach that encourages in-depth discussion and study of current cultural and literary events in Italy. Students receive individualized instruction in advanced syntax and vocabulary. 3 lec., 3 credits
Prerequisite: LAN-221 or equivalent placement

## LAN-224 Advanced Italian

Composition develops the students ability to write in Italian and emphasizes the relationship between the spoken and written idiom. Letters, reports, creative writing, and expository forms serve as the basis for an in-depth study of advanced Italian grammar. 3 lec., 3 credits Prerequisite: LAN-221 or equivalent placement

## LAN-227 Survey of Italian

Literature is a study of the development of Italian literature from the Middle Ages through the 20th Century. 3 lec., 3 credits Prerequisite: LAN-221

## LAN-228 Elementary Spanish for

Heritage Speakers is designed to address the needs of Hispanic/ Latino students who can communicate in Spanish but need to develop and/or improve their reading and writing skills. It addresses specific linguistic issues such as diction, orthography, and sentence structure. The course is conducted in Spanish and includes cultural discussions.
Recommended for students who speak Spanish but have had no formal Spanish language instruction.
4 lec., 3 credits
Pre-requisite: Permission of Academic Coordinator
IGeneral Education Course
LAN-229 Intermediate Spanish for Heritage Speakers is a continuation of Elementary Spanish for Heritage Speakers. It continues to develop reading and writing skills, and to address linguistic issues. The course is conducted in Spanish and includes cultural discussions. 3 lec., 3 credits
Prerequisite: LAN-228, equivalent placement, or by permission of the Academic Coordinator.
IGeneral Education Course
LAN-230 Spanish II offers students an opportunity to enhance their skills in the speaking, reading, writing, and comprehension of Spanish through active class use of vocabulary, grammar, and syntax.
3 lec., 1 lab., 3 credits
Prerequisite: LAN-113 or equivalent placement
IGeneral Education Course

LAN-231 Intermediate Spanish I expands students Spanish vocabulary and enhances their conversational and reading ability. The course is conducted entirely in Spanish and focuses upon more complex grammatical structures as well as upon discussions about the Hispanic culture.
3 lec., 3 credits
Prerequisite: LAN-230 or equivalent placement
IGeneral Education Course
LAN-232 Intermediate Spanish II is conducted entirely in Spanish and develops students Spanish communication skills through a study of the cultural history of Spain and Latin
America. 3 lec., 3 credits
Prerequisite: LAN-231
IGeneral Education Course

## LAN-233 Advanced Spanish

Conversation promotes authenticity of accent and fluency in oral communication in Spanish via a multimedia approach that encourages in-depth discussion and study of current cultural and literary events in Spanish-speaking countries. Students receive individualized instruction in advanced syntax and vocabulary. 3 lec., 3 credits
Prerequisite: LAN-231 or equivalent placement

## LAN-234 Advanced Spanish

Composition develops the students ability to write in Spanish and emphasizes the relationship between the spoken and written idiom. Letters, reports, creative writing, and expository forms serve as the basis for an in-depth study of advanced Spanish grammar. 3 lec., 3 credits
Prerequisite: LAN-231 or equivalent placement

## LAN-235 Survey of Spanish

Peninsular Literature is a study of
Spanish literature from the 12th cen-
tury to the present.
3 lec., 3 credits
Prerequisite: LAN-231 or equivalent placement

## LAN-236 Survey of Spanish-

American Literature is a study of
Spanish American literature from 1492
to the present.
3 lec., 3 credits
Prerequisite: LAN-231 or equivalent placement

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## LAN-237 Mexican Culture and

Civilization surveys the unique geography, pertinent history, significant literary and artistic movements, and the current socio-political role of M exico in the world. The course discusses M exico's contributions to world agriculture, industry and international trade. The course is taught in Spanish using a variety of media and may provide out-of-class learning opportunities. 3 lec., 3 credits
Prerequisite: LAN-231

## LAN-238 Spanish Culture and

 Civilization surveys the unique geography, pertinent history, significant literary and artistic movements, and the current socio-political role of Spain in the world. The course discusses Spain's contributions to world agriculture, industry, and international trade. The course is taught in Spanish using a variety of media and may provide out-of-class learning opportunities. 3 lec., 3 creditsPrerequisite: LAN-231

## LAN-239 Italian Culture and

 Civilization surveys the unique geography, pertinent history, significant literary and artistic movements, and the current socio-political role of Italy in the world. The course discusses Italy's contributions to world agriculture, industry, and international trade. The course is taught in Italian using a variety of media and may provide out-of-class learning opportunities. 3 lec., 3 creditsPrerequisite: LAN-221
LAN-240 Russian II offers students an opportunity to enhance their skills in the speaking, reading, writing, and comprehension of Russian through active class use of vocabulary, grammar, and syntax.
3 lec., 1 lab., 3 credits
Prerequisite: LAN-114 or equivalent placement
IGeneral Education Course
LAN-241 Intermediate Russian expands students Russian vocabulary and enhances their conversational ability. The course is conducted entirely in Russian and features extensive discussion of contemporary Russia and some grammar review.
3 lec., 3 credits
Prerequisite: LAN-240 or equivalent placement
IGeneral Education Course

LAN-244 Irish II offers students an opportunity to enhance their skills in the speaking, reading, writing, and comprehension of Irish, one of the Gaelic languages, through active class use of vocabulary, grammar, and syntax. 3 lec., 1 lab., 3 credits Prerequisite: LAN-144 or equivalent placement
IGeneral Education Course

## LAN-245 Intermediate Irish I

expands students Irish vocabulary and enhances their conversational ability in this Gaelic language. The course is conducted entirely in Irish and features extensive discussion of contemporary lrish-speaking regions in Ireland and some grammar review . 3 lec., 3 credits
Prerequisite: LAN-244 or equivalent placement
IGeneral Education Course
LAN-250 Hispanic Society is a study of the social, economic, political, and cultural histories of a variety of Spanish-speaking nations in Europe, America, and Africa. 3 lec., 3 credits
Prerequisite: Fluency in Spanish as determined by the W orld Languages faculty.

LAN-260 J apanese II offers students an opportunity to enhance their skills in the speaking, reading, writing, and comprehension of $J$ apanese through active class use of vocabulary, grammar, and syntax.
3 lec., 1 lab., 3 credits
Prerequisite: LAN-120
IGeneral Education Course

## LAN-261 Intermediate J apanese

I expands students J apanese vocabulary and enhances their conversa tional ability. The course is conducted entirely in J apanese and features extensive discussions of contemporary J apan and some grammar review. 3 lec., 3 credits Prerequisite: LAN-260
IGeneral Education Course
LAN-265 Korean II offers students an opportunity to enhance their skills in the speaking, reading, writing and comprehension of Korean through active class use of vocabulary, grammar and syntax. 4 lec., 3 credits Prerequisite: LAN-165
IGeneral Education Course

## LGL- LEGAL ASSISTANT

LGL-101 Fundamentals of Law is an introduction to the principles of substantive law in the fields of contracts, sales, torts, and secured transactions. 3 lec., 3 credits

## LGL-103 Legal Research and

Writing is an introduction to legal practice. Topics covered include law office systems, legal research, legal forms, and briefs. Computerized, online legal research techniques are taught. Research problems and case memo term papers are assigned.
2 lec., 2 lab., 3 credits
Prerequisite: W RT-101
LGL- 150 School Law is a study of New J ersey school laws, the rules and regulations of the New J ersey State Board of Education, the functions of the State Commissioner of Education, and the relationship of school district organization to other units of government.
3 lec., 3 credits
LGL- 165 Elder Law is a survey of the emerging law concerning the rights, duties, and responsibilities of persons over the age of 60 . Topics covered include incompetency procedures, guardianships and other protective arrangements, M edicare and M edicaid, long-term planning and strategies, protection of the home from creditors and family members, health benefits, social security, and special estate planning for the remarried elderly. 1 lec., 1 credit

## LGL-202 New J ersey and Federal

Courts is a study of the Rules of Court for the New J ersey Court System as they relate to pleadings, depositions, interrogatories, summary judgment, appellate practice, and rules of evidence. 3 lec., 3 credits Prerequisites: LGL-101, LGL-103, and LGL-203

## LGL- 203 Paralegalism and Legal

Procedure is a study of the role of a legal assistant in the public sector. Topics of discussion include methods of investigating cases and of preparing legal memoranda and other legal documents. 2 lec., 2 lab, 3 credits Prerequisites: LGL-101 and LGL-103 Co-requisite: W RT-201

LGL-205 Mechanics of Property Transactions is a study of New J ersey real estate legal practice and procedures concentrating on such topics as conveyancing, forms, and the theory and practice of real estate transactions. Sample cases are used to illustrate the legal assistants role in a real property conveyance.
Students examine case studies and prepare a sample problem from contract to closing. 3 lec., 3 credits Prerequisites: LGL-101, LGL-103, and REA-101

## LGL-206 Mechanics of

 Commercial Transactions is a study of legal forms, procedure and practice for organizing a business entity, sale of a business, equipment leasing, and other commercial transactions. Students examine case studies and prepare a sample problem for sale of a business. 3 lec., 3 credits Prerequisites: LGL-101 and LGL-103LGL-207 Wills and Administration is a study of the New J ersey law of wills, probate, and estate administration. Topics of discussion include the preparation of wills, probate procedures, and the preparation of New J ersey Inheritance and Federal Estate Tax forms. 3 lec., 3 credits Prerequisites: LGL-101 and LGL-103

LGL-208 Mechanics of Family Law is an introduction to New J ersey family law. Topics of discussion include divorce, annulment, equitable distribution of assets, child custody, alimony, and support and visitation of children. New J ersey forms and procedures are reviewed. Students examine case studies and prepare matrimonial pleadings and pre-trial memoranda. 3 lec., 3 credits Prerequisites: LGL-101 and LGL-103

LGL-230 Bankruptcy Law teaches paralegals the procedures, forms, and schedules used in bankruptcy cases.

## 1 lec., 1 credit

Prerequisites: LGL-202 and LGL-203 or permission of the Department Head

## LGL-231 Environmental Claims

teaches paralegals the practice and procedures in the specialized field of environmental claims-tort liability.
1 lec., 1 credit
Prerequisites: LGL-203 and LGL-205 or permission of the Department Head

LGL-232 Immigration Law teaches paralegals the practices and procedures in the emerging specialty of immigration law. 1 lec., 1 credit Prerequisite: LGL-203 or by permission of the Department Head

## LGL-233 Intellectual Property

teaches paralegals the practices and procedures used in the emerging specialty of filing and protecting intellectual property such as tradenames, patents and copyrights.
1 lec., 1 credit
Prerequisites: LGL-203 and LGL-206 or permission of the Department Head

## LGL-234 Personal Injury and

 Product Liability teaches paralegals the practice and procedures used in the developing specializations of personal injury and product liability torts. 1 lec., 1 creditPrerequisite: LGL-203 or by permission of the Department Head

LGL-235 Tax Law teaches paralegals the tax implications of common problems faced in law offices. Topics include business acquisitions and IRS employment regulations.
1 lec., 1 credit
Prerequisites: LGL-203 and ACC-103
or permission of Department Head
LGL-236 Employment Law is a course for employees and employers concerning hiring, managing, and terminating employees and special protections available to employers and employees under statutes and cases. The course emphasizes recent developments in the law. 2 lec., 2 credits Prerequisite: LGL-101 or by permission of the Department Head

LGL-237 Rules of Evidence is a review of the rules of evidence in court which include competency to testify, best evidence, hearsay, relevancy, impeachment of a witness, and other evidence rules. 1 lec., 1 credit Prerequisite: LGL-101 or by permission of the Department Head

LGL-462 Co-Op Work Experience (Legal Assistant) requires part-time student employment in a law office, banking institution, court or other law-related position and aims at giving students insight into the methods and procedures used by legal assistants. J ob assistance is available through the Co-Op office. 1 lec.; plus 179 minimum hours work experience distributed over the semester, 2 credits
Prerequisites: LGL-101 and LGL-202 and LGL-205 and LGL-208. Student must attain a C or better grade in English Composition I and II and all paralegal specialty courses.

## LIT - LITERATURE

*Literature courses need not be taken in sequential order.
*LIT-201 American Literature to
1880 is a study of representative American literature from its origins to the late nineteenth century. Students read selections from such areas as exploration narratives and Native American poetry, and from such authors as Bradstreet, Edw ards, Douglass, Emerson, Haw thorne, M elville, Dickinson, and W hitman. 3 lec., 3 credits
Prerequisite: W RT-101
IGeneral Education Course
*LIT-202 Americ an Literature 1880 to the Present is a study of representative American literature from the late nineteenth century to the present. Students read works by such authors as Twain, O'Neill, Hurston, Hemingway, Faulkner, Frost, W right, Ginsberg, and Rich. 3 lec., 3 credits Prerequisite: W RT-101
IGeneral Education Course
*LIT- 203 W orld Literature to 1650 is a study of world authors to the sixteenth century. Students read works such as Gilgamesh; selections from the Old and New Testaments, the Ramayana; and writings of such authors as Homer, Aeschylus, Li Po, Dante, Shakespeare, and SorJ uana. 3 lec., 3 credits
Prerequisite: WRT-101
IGeneral Education Course
Diversity Course
*LIT- 204 W orld Literature 1650 to the Present is a study of world authors from the sixteenth century to the present. Students read works by such authors as Wu Ch'Eng-En, Racine, Goethe, Flaubert, Tolstoy, Eliot, M ahfouz, and Achebe. 3 lec., 3 credits
Prerequisite: WRT-101
IGeneral Education Course
Diversity Course
*LIT- 205 English Literature to 1800
is a study of British literature from Anglo Saxon times to the late eighteenth century. Students read works such as Beow ulf and such authors as Chaucer, Kempe, Shakespeare, Milton, Dryden, Pope, and Swift. 3 lec., 3 credits Prerequisite: WRT-101
IGeneral Education Course
*LIT-206 English Literature 1800 to the Present is a study of British literature from the Romantic period to the present. Students read works by such authors as Blake, Wordsworth,
Austen, Hardy, Dickens, Yeats,
Lawrence, Woolf, and Thomas.
3 lec., 3 credits
Prerequisite: WRT-101
IGeneral Education Course
LIT-215 The Black Literary Voice
in America is a study of major African American authors. The course provides a literary, historical, and sociological survey of the AfricanAmerican experience. Students read w orks by such authors as W heatley, Douglass, Ellison, Hurston, Baldwin, M alcolm X, M orrison, and W alker. 3 lec., 3 credits Prerequisite: WRT-101
IGeneral Education Course
Diversity Course
*LIT-216 European Literature to 1650 is a study of European authors from Greco Roman times to the Renaissance. Representative works are studied in their historical context. The course includes selections from such works as the Bible, ancient Greek tragedies and comedies, medieval epics and dramas, and such authors as Sappho, Plato, Virgil, Dante, M arie de France, Shakespeare, and Milton. 3 lec., 3 credits Prerequisite: WRT101
IGeneral Education Course
*LIT-217 European Literature 1650
to the Present is a study of
European literature from the NeoClassical period to the present. Representative works are studied in their historical context. The course includes selections from such areas as Romantic and Victorian poetry, the nineteenth century novel, and existentialism, and such authors as Racine, Voltaire, Austen, Goethe,
Dostoyevsky, the Symbolists, Kafka,
Woolf, M ann, and the Post-M odems.
3 lec., 3 credits
Prerequisite: W RT-101
IGeneral Education Course

## LIT-218 American Ethnic

Literature examines the literature of America's ethnic groups. The course draws upon significant works of fiction, poetry, drama, and autobiography written by representatives of such groups as Native Americans,
Hispanics, Irish, J ews, Asians, Blacks, and Italians. 3 lec., 3 credits
Prerequisite: WRT-101
IGeneral Education Course
Diversity Course

## LG L-M AT

LIT-220 Social Aspects of Literature examines various concerns and issues that exist within human communities. The course allows students to explore social structures and the role of the individual within a larger social context, with the aim of developing a greater understanding of the interaction of self and society. Literary texts provide the foundation for discussion and analysis. 3 lec., 3 credits
Prerequisite: W RT-101
IGeneral Education Course
LIT-224 Topics in International
Literature is an exploration of major themes in the literature of various cultures. Each semester a specific theme is developed through the study of literary w orks that are representative of a number of nations and cultures. 3 lec., 3 credits
Prerequisite: WRT-101
IGeneral Education Course
Diversity Course
LIT-225 M odern Irish Literature is a study of the Irish literary revival of the nineteenth and tw entieth centuries. The works of such major Irish authors as Synge, Yeats, O'Casey and J oyce are discussed, with special emphasis upon their adaptation of Celtic mythological material and their reactions to the political, cultural, and social conditions of modern Irish society. 3 lec., 3 credits Prerequisite: W RT-101

LIT-228 W omen in Literature is a study of representative works by women writers in a variety of forms. The course provides a literary, historical, and sociological context for the study of this literature. Students read works by such authors as J ulian of Norwich, Dickinson, Chopin, W oolf, Emecheta, M orrison, and Tan. 3 lec., 3 credits
Prerequisite: W RT-101
IGeneral Education Course Diversity Course

## MAT - MATHEMATICS \& <br> COMPUTER SCIENCE

## M AT-010 B asic Mathematics

Support is a recitation class designed to provide additional instructional time for students enrolled in designated sections of M AT-011.
1 lec., 1 credit (non-degree) Co-requisite: M AT-011

M AT
MAT-011 Basic Mathematics is a study of the fundamental operations of arithmetic, intended for students whose placement examination indicates a need for review of arithmetic skills.
3 lec., 3 credits (non-degree)

## M AT-030 Algebra Review is

 designed for students who want a brief review of algebra. Students take practice tests. Review topics include: first and second degree equations, rational expressions, polynomials, factoring, graphing, systems of equations, and radicals. This course is intended for students with previous experience in high school level Algebra. While M AT 030 may help prepare students for placement testing, it does not replace the remedial Algebra required of students once they fall below the cut-off scores on the placement exam.1 lec., 1 credit (non-degree)
M AT-031 Algebra A; M AT-032
Algebra B is a two semester basic algebra course equivalent in content to and satisfying the requirements of MAT 035. These courses are designed for the student who has not studied algebra previously, or for the student who has found algebra to be a difficult subject. Students who are placed in M AT-035 may elect to enroll in the MAT-031 and M AT-032 sequence.
M AT-031: 3 lec., 3 credits (nondegree) Prerequisite: M AT-011 or equivalent by testing
M AT-032: 3 lec., 3 credits (nondegree) Prerequisite: M AT-031

M AT-033 Algebra A Support is a recitation class designed to provide additional instructional time for students enrolled in designated sec-
tions of MAT-031.
1 lec., 1 credit (non-degree)
Co-requisite: M AT-031
M AT-034 Algebra B Support is a recitation class designed to provide additional instructional time for students enrolled in designated sections of M AT-032.
1 lec., 1 credit (non-degree)
Co-requisite: M AT-032

M AT-035 Algebra is a basic algebra course for students whose placement examination indicates a need for review in algebra. Topics include signed numbers, variables, literal equations and formulas, square roots, integral exponents, polynomials, linear and quadratic equations, and rational expressions. 4 lec., 4 credits (non-degree) Prerequisite: M AT-011 or equivalent by testing

M AT-045 Intermediate Algebra is the study of polynomial and rational expressions, integral and fractional exponents, roots and radicals, linear and quadratic equations, functions, elementary curve sketching, inequalities. 4 lec., 4 credits (non-degree) Prerequisite: M AT-032 or M AT-035 with a grade of C or better or by proficiency examination.

## MAT-116 Technical

Mathematics I is designed to increase students mathematical knowledge and skills with an emphasis on applications in technological occupations. The course covers measurement analysis, algebraic and geometric topics, graphics, problem solving, logarithms, and an introduction to trigonometry and to computer techniques. M AT-116 is intended for students in Electrical Technology, and Drafting and Design Technology. 3 lec., 3 credits Prerequisite: M AT-032 or M AT-035 or equivalent by testing.

## MAT-130 Introduction to the

 Mathematical Sciences is a study of some of the fundamental concepts in mathematics and computers. Topics considered include number systems, symbolic logic, set the ory, principles of counting, probabili ty, and an introduction to computers and computer programming. Applications of these concepts in various fields of study are included in the course. 3 lec., 3 credits Prerequisite: M AT-032 or M AT-035 or equivalent by testing.IGeneral Education Course
M AT-150 Elementary Statistics is a study of frequency distributions, measures of central tendency and dispersion, probability, the normal distribution, sampling and sampling distributions, the central limit theorem, confidence interval estimation, and hypothesis testing.
3 lec., 3 credits
Prerequisite: M AT-032 or M AT-035 or equivalent by testing.
IGeneral Education Course

M AT- 155 Finite M athematics is an introduction to the solution of problems in the management, natural behavioral, and social sciences. Topics covered include mathematical models, matrices and linear systems, and linear programming. 3 lec., 3 credits
Prerequisite: M AT-032 or M AT-035
or equivalent by testing.
IGeneral Education Course

## M AT-158 Introduction to

Computer Science is intended for students who are interested in computers and their applications. Topics include terminology used in the computer field, introduction to computer systems and their applications. Students will work with various software packages on a microcomputer. Students who plan to major in Computer Science should instead register for MAT-165 C++ Programming I. 3 hours, 3 credits Prerequisite: M AT-011 or equivalent by testing. (Business students should take INF-101)

## M AT-163 Computer

Programming: QBASIC is an introduction to programming techniques using the QBASIC language. Students learn how to develop programs for various applications, and they obtain extensive hands-on experience in the operation and use of a microcomputer. The course is intended for students in the liberal arts and sciences. Students with prior programming experience should take M AT-266 Computer Programming: Visual BASIC. 2 lec., 2 lab., 3 credits Prerequisite: M AT-032 or M AT-035 or M AT-045 or equivalent by testing. IGeneral Education Course

## M AT-165 C++ Programming I is

 an introduction to computer systems and structured programming techniques. Topics considered include an introduction to the components of a computer system; problem solving and algorithm design; standard data types and declarations; input and output techniques; operators; library functions; fundamental control statements; arrays and strings; data sorting; and files. Applications are selected from various fields of study. 2 lec., 2 lab., 3 credits Prerequisite: M AT-032 or M AT-035 or M AT-045IGeneral Education Course
See also M AT-265 and M AT-271

M AT-180 Precalculus: College Algebra and Trigonometry is a study of coordinate geometry; functions and graphing; polynomial and rational functions; exponential, logarithmic, trigonometric, and inverse trigonometric functions; analytic geometry, and applications. 4 lec., 4 credits Prerequisite: M AT-045 with a grade of $C$ or better or by proficiency examination.
IGeneral Education Course

## M AT-222 Technical M athematics

II is an applied calculus course with emphasis in the technical areas. Topics include inequalities, limits, derivatives, differentials, antiderivatives, definite integrals, and derivative and integral properties of transcendental functions. 4 lec., 4 credits Prerequisite: MAT-116 or M AT-180.

## MAT-223 Calculus for the Managerial and Social Sciences

 covers the essential ideas of the Calculus: functions, limits, continuity, differentiation and integration. The course includes applications to problems in business, economics, psychology, the social sciences and mathematical modeling. 3 lec., 3 credits Prerequisite: M AT-045 or by proficiency examination.IGeneral Education Course
MAT-250 Statistical Analysis is an introduction to methods for the design of research studies and the interpretation of data that result from these studies. Topics considered include a brief review of elementary statistical concepts, additional cases of hypothesis testing and estimation, analysis of variance, analysis of enumerative data, linear regression and correlation, and non-parametric statistics. Laboratory assignments using a statistical software package are included in the course. 2 lec., 2 lab., 3 credits Prerequisite: M AT-150 or by permission of the Department Head IGeneral Education Course

MAT-265 C++ Programming II is a continuation of M A-165 C+ Programming I. Topics considered include functions; structured programming principles; pointer arithmetic; multi-dimensional arrays; fundamental sorting and searching algorithms; structures; unions; sequential and random access file processing algorithms; and the run-time behavior of programs. 3 lec.; 1 lab., 3 credits
Prerequisite: M AT-165 or by permission of the Department Head

## M AT-266 Computer Programming:

 Visual BASIC is an introduction to a programming tool for developing userfriendly W indows applications in the QBASIC programming language. It is intended for the student who has already learned the fundamental programming structures of a computer language. After a review of the fundamentals of QBASIC, Visual BASIC tools will be studied and incorporated into applications using modular programming techniques, arrays, sorting and searching techniques, and sequential and random access files.3 lec., 1 lab., 3 credits
Prerequisite: M AT-163 or M AT-165
IGeneral Education Course

## MAT-271 Computer Organization and Assembly Language I is a study

 of the interactions between hardware and softw are necessary for understanding the organization and application of computer systems. Topics to be considered include data representation, Boolean algebra and computer logic, the central processing unit and program execution, main memory, classes of machine language instruc tions, addressing formats, addressing modes, and the fundamentals of assembly language programming. 2 lec., 2 lab., 3 credits Prerequisites: M AT-165 or M AT-266 or MAT-272 or by permission of the Department Head
## MAT-272 FORTRAN Programming

 is an introduction to structured programming techniques using the FORTRAN language, with emphasis on mathematical, scientific, and engineering applications. Topics considered include data types and specifications, fixed and floating point arithmetic, input and output techniques, fundamental control structures, multi-dimensional arrays, external functions and subroutines. 2 lec., 2 lab., 3 credits Prerequisites: M AT-180 or by permission of the Department Head
## M AT-274 Computer Organization

 and Assembly Language II is a continuation of M AT-271. Topics considered include the assembly process; input and output instructions; branches and jumps; program segmentation; and linkage. 2 lec., 2 lab., 3 credits Prerequisite: M AT-271 or by permission of the Department HeadM AT-275 COBOL for Computer
Science is intended for computer science students who have prior programming experience and who want to become familiar with the COBOL programming language. Topics considered include structured techniques of algorithm design; COBOL program structure and design; conditional statements; sorting, searching, and merging techniques; table handling; the organization, design and processing of files; and modular programming techniques. Programming assignments are included in the course.
2 lec., 2 lab., 3 credits
Prerequisite: M AT-265 or M AT-266 (Information Technology students should take INF-202).

## M AT-277 Data Structures and

 Algorithms is a study of the representation and implementation of abstract data types and related algorithms that are used in computer science. Topics considered include lists, strings, stacks, queues, trees, graphs, networks, file structures, recursive functions, sorting techniques, searching techniques, hashing, and analysis of algorithms. 3 lec., 1 lab., 3 credits Prerequisite: M AT-265M AT-278 Database Systems is an introduction to the design and implementation of database systems. Topics considered include database architecture, physical data organization, the Entity-Relationship model, the hierarchical, network, and relational models of data, nomalization theory, data definition languages and query facilities, data integrity and security, and programming language interfaces. Students use a DBM S to develop an actual database.
3 lec., 1 lab., 3 credits Prerequisite: M AT-265 or M AT-266

M AT-280 Calculus I is a study of limits, continuity, the derivative of a function, differentiation of algebraic functions, sine and cosine functions, applications of a derivative, antidifferentiation, area under a curve, the definite integral, the fundamental theo rem of calculus, and applications. 4 lec., 4 credits
Prerequisite: M AT-180 with a grade of C or better or by permission of the Department Head IGeneral Education Course

M AT-281 Calculus II is a study of differentiation and integration of transcendental functions, methods of integration, applications of the integral, indeterminate forms, improper integrals, infinite series, and applications. 4 lec., 4 credits
Prerequisite: M AT-280 with a grade of C or better or by permission of the Department Head
IGeneral Education Course
MAT-282 Calculus III is a study of vectors, parametric equations, polar coordinates, partial differentiation, directional derivatives, gradients, line integrals, multiple integrals and applications. 4 lec., 4 credits
Prerequisite: M AT-281 with a grade of C or better or by permission of the Department Head
IGeneral Education Course

## M AT-283 Differential Equations

covers equations of order 1, linear equations with constant coefficients, non-homogeneous equations, variation of parameters, series solutions, equations with variable coefficients, Laplace transforms, convolutions, boundary value problems, Fourier transforms and applications. 4 lec., 4 credits
Prerequisite: M AT-282 with a grade of C or better or by permission of the Department Head

MAT-286 Linear Algebra is a study of finite dimensional vector spaces. Topics considered include vectors and vector spaces, matrices, determinants, systems of linear equations, linear transformations, quadratic forms, eigenvalues and eigenvectors, and applications. 4 lec., 4 credits Prerequisite: MAT-280 or by permission of the Department Head

## M AT-287 Object-Oriented

Programming in $\mathrm{C}++$ is an introduction to the object-oriented approach to program development and how it differs from the procedural approach. Topics considered include classes and objects, methods and message passing, function and operator overloading, access regions, friend functions, inheri tance, polymorphism and virtual functions. 3 lec., 1 lab., 3 credits Prerequisite: M AT-265

M AT-M FG
M AT-288 Discrete Mathematics for Computer Science is a study of the mathematical theory and techniques that underlie computer science. Topics considered include set theory, induction, counting techniques, relations and functions, recurrence relations, trees, graphs, Boolean algebra and circuits, grammars and an introduction to automata theory. Applications of these topics in computer science are included in the course. 4 lec., 4 credits
Prerequisite or Co-requisite: M AT-265 or by permission of Department Head

## MAT-289 Systems Analysis and

 Design for Computer Science is an introduction to the terminology, concepts, and tools for these two phases of the system development life cycle. Topics considered include preliminary investigation, information requirements analysis, project managment, data specification, data flow diagrams, logical data modeling, process specification, structure charts, design techniques, design criteria, and packaging. 3 lec., 3 creditsPrerequisite or Co-requisite: M AT-277 (Business students take INF-208)

## MFG - MANUFACTURING TECHN OLOGY

MFG-119 M anufacturing Design I
is a study of the basic functionality and use of Parametric Technology Corporation's Pro/ENGINEER 3D solid modeling software. Emphasis will be placed on the technology as well as the terminology in relation to this advanced tool. Lecture and lab will be used to teach not only how to use specific features of the software but also how to use it in design.
2 lec., 2 lab., 3 credits

## M FG-219 M anufacturing Design II

is a study of the intermediate to advanced functionality of Parametric Technology Corporation's Pro/ENGINEER 3D solid modeling softw are. Emphasis will be placed on the technology as well as the various design techniques in relation to this advanced tool. Lecture and lab will be used to teach not only how to use specific features of the software but also how to use it in design. 2 lec., 2 lab., 3 credits Prerequisite: M FG-119

M FG-220 M anufacturing Design III
is a study of the design and analysis techniques using Parametric
Technology Corporation's Pro/ENGINEER 3D solid modeling softw are and pro/M ECHANICA. Emphasis will be placed on the technology as well as the techniques available in relation to this advanced tool. Lecture and lab will be used to teach how to use specific features of the software in relation to product design. 2 lec., 2 lab., 3 credits Prerequisite: M FG-219

## M FG-221 M anufacturing Design IV

 is a study of the basic functionality and use of the manufacturing module of Parametric Technolology Corporation's Pro/ENGINEER 3D soldid modeling software. Emphasis will be placed on the technology as well as the terminology in relation to this advanced tool to manufacture products. Lecture and lab will be used to teach not only how to use specific features of the softw are but also how to use it in design.2 lec., 2 lab., 3 credits
Prerequisite: M FG-220
M FG-254 Robotics is an introduction to the principals and capabilities of modern robot technology. Topics considered include the evolution and future of computerized robots; robot intelligence; geometric sensors; computer controllers; and the design, assembly, adaption, programming maintenance, operation and applications of robots in industry. Laboratory assignments on robotic activities are included in the course.
2 lec., 2 lab., 3 credits
Prerequisite: M AT-163 or by permission of the Department Head
IGeneral Education Course
M FG-257 Introduction to Manufacturing Systems utilizing high tech hardw are (CNC lathe \& milling machines, vision inspection system, robotic arms, conveyors, etc.) and industrial softw are (CAM ) in order to control, manage, operate and monitor manufacturing processes.
2 lec., 2 lab., 3 credits
Prerequisite: By permission of the Department Head

## MLT - MEDICAL LABORATORY TECHN OLOGY

## M LT-160 M edic al Laboratory

Tec hnology I is an in-depth study of the sciences of hematology and urinalysis. It deals with the morphology of blood and blood-forming tissues, the composition of urine, and the functions of the urinary system. The physiology and pathology of both subjects are also studied. The laboratory component of the course is utilized to develop the skills and competencies required to perform laboratory analysis with instruction in the proper use of the various instrumentations involved in these studies.
3 lec., 6 lab., 5 credits
Co-requisite: CHM -100, M AT-130 or M AT-150 or M AT-155 or M AT-180

## MLT-201 Clinical Microbiology I is

 a study of microorganisms and their relationship to diseases. Discussion is centered on laboratory cultivation, methods of identification, antimicrobial susceptibility tests and serological diagnosis of microorganisms. Clinically significant aerobic bacteria are emphasized. The laboratory component of the courses develops the skills and competencies required to perform the diagnostic procedures. 3 lec., 3 lab., 4 credits Prerequisites: CHM -140, CHM-141, and M LT-263Co-requisites: CHM-240, CHM-241 M LT-261, and M LT-264

## MLT-202 Clinical Microbiology II

 is a continuation of study of microorganisms and their relationship to disease. The emphasis of this course is on anaerobic bacteria, mycobacteria, viruses, human parasites and fungi. The laboratory component is designed to develop the skills and competencies to isolate, identify and test for antimicrobial susceptibility of the microorganisms.3 lec., 3 lab., 4 credits
Prerequisites: CHM -240, CHM -241, M T-201, M LT-261, and MLT-264
Co-requisites: M LT-262 and M LT-266

## MLT-260 M edic al Laboratory

Technology II is designed to provide the student with a concise and thorough guide to transfusion practices and immunohematology. A problemoriented approach to the subject matter is incorporated to provide the student with a working knowledge of modern, routine blood banking. The laboratory component of the course is utilized to develop the skills and competencies required to perform blood banking procedures and to maintain records for the efficient operation of a blood bank. 3 lec., 6 lab., 5 credits Prerequisites: CHM -100, M AT-130 or M AT-150 or M AT-155 or M AT-180, M LT-160
Co-requisites: CHM-140 \& CHM -141

## MLT-261 Medic al Laboratory

Technology III is an in-depth study of analytical techniques utilized to measure the biochemical entities of blood and various body fluids. The correlation of test results to the body's physiology and pathology is also stressed. The laboratory segment of the course is used to develop the skills and competencies required to operate, standardize, and understand the instruments utilized in performing the analysis. The use of quality control procedures is emphasized. 3 lec., 6 lab., 5 credits Prerequisites: CHM -140, CHM -141, and MLT-263
Co-requisites: CHM-240, CHM-241, M LT-201, and M LT-264

## M LT-262 M edical Laboratory

Technology IV is a continuation of the in-depth study of clinical chemistry started in M T-261. M ore advanced and sophisticated procedures utilizing automated sequential multiple analysis instruments are studied. 3 lec., 6 lab., 5 credits Prerequisites: CHM -240, CHM-241, M LT-261, and M LT-264
Co-requisites: M LT-202 and M LT-266

## M LT-263 M edic al Laboratory

Externshipl is designed to introduce students to the medical laboratory in hospital setting. This externship takes place at the end of the freshman year, during Summer Session I. The experience provides students with an orientation to each department of the laboratory and with an opportunity to demonstrate and develop their skills and competencies. Each student rotates through each department of the laboratory and functions under the direct supervision and instruction of the laboratory staff instructors. 40 hours per week, 1 credit Prerequisite: M LT-260

## MLT-264 M edical Laboratory

Externship II is practiced at an affiliated hospital laboratory. This is the first half of the M LT-264/M LT-266 two semester sequence. This experience enables students to practice the skills they have learned and to learn new skills and competencies under the direction and supervision of the laboratory staff instructors. The student rotates through the blood bank, clinical chemistry, hematology, immunology/serology; microbiology and body fluid departments of the laboratory. 16 hours per week, 1 credit Prerequisites: CHM -140, CHM -141, and M LT-263
Co-requisites: CHM-240, CHM-241, M LT-201, and M LT-261

## MLT-266 M edical Laboratory

Externship III is the second half of the MLT 264/M LT-266 two-semester sequence. Emphasis is placed on the development in students of confidence in their competencies so they can function with minimal supervision of the laboratory staff instructors. Students rotate through the laboratory departments which were not covered in the first semester.
16 hours per week, 1 credit Prerequisites: CHM -240, CHM -241, M LT-261, and M LT-264
Co-requisites: M LT-202 and M LT-262

## MOA - MEDICAL OFFICE ASSISTANT

M OA-140 Medical Terminology provides an introduction to the basic structure of medical words, including prefixes, suffixes, roots, combining forms, and the formation of plurals. Emphasis is placed on the correct pronunciation, spelling, and definition of medical terms, allowing the student to build a professional vocabulary for working in the medical field. 3 lec., 3 credits

## M OA-141 Introduction to

 Medical Assisting is a study of the professional attitudes and behavior required of medical assistants. The fundamentals of meeting the special needs of patients are also studied. The fundamental principles of human relations and the importance of professional growth and communication skills are stressed. Additional emphasis is placed on development of medical science, health agencies, medical specialties, and common disease processes. 3 lec., 3 credits
## M 0A-145 Medical Office

Assisting: An Overview is offered to candidates for the Certified M edical Assistant Examination administered by the American Association of M edical Assistants. Subjects to be covered in the course are medical terminology, human relations, medical law and ethics, anatomy and physiology, administrative procedures, and clinical procedures. 3 lec., 3 credits

## M OA-200 Pharmac ology for

 Medical Office Assistants introduces the student to drug practices, procedures, and preparations utilized in ambulatory care settings. Topics include legislation, drug sources, classifications, and actions. Emphasis is placed on function of drugs, vitamins and minerals, and substance abuse, as well as the effects of medications on the various body systems. 2 lec., 2 credits Prerequisite: M OA-140
## M 0A-201 Diagnostic and

 Procedural Coding enables the student to develop competence in coding systems, diagnoses, and procedures for data collection and processing. The student will follow Federal regulations and guidelines for sequencing of diagnoses and processing activities. The laboratory component of the course is utilized to develop the skills and competencies to perform coding through both manual and computer-based methods. 3 lec., 3 lab., 4 creditsPrerequisite: M OA-140
M OA-218 Medical Economics is a study of various types of medical practice and medical care, fee determination, health and accident insurance programs, and government medical care programs. M edical law and ethics are also emphasized.
2 lec., 2 credits
Prerequisite: M OA-141

## M OA-240 Clinical Office

Practice enables the student to develop competence in examination room techniques. Special emphasis is placed on preparing the patient for examination, taking vital signs, preparing for sterilization and injection procedures, taking electrocardiograms, performing first aid and emergency procedures including CPR, and caring for supplies and equipment in the physician's office.
2 lec., 4 lab., 4 credits
Prerequisites: M OA-140 \& M OA-141

## M OA-241 Clinical Laboratory

Technology enables the student to develop competence in the techniques of laboratory procedure commonly performed in a physician's office. Procedures studied include urinalysis, hematology, bacteriology, immunology, and basal metabolism. 3 lec., 3 lab., 4 credits
Prerequisite: M OA-240

## M OA-243 Medical Office Assistant Externship I provides

 the student with 120 hours of directed experience in a physician's office or other relevant medical facility. Attendance is required at scheduled seminars. 1 creditPrerequisite: M OA-141
Co-Requisites: M OA-241 \& OFF-211

## M OA-244 Medical Office

Assistant Externship II enables the student to continue with 120 hours of directed experience in an assigned physician's office or other relevant medical facility. Emphasis is on refinement of skills and performance of all administrative and clinical tasks. Attendance is required at scheduled seminars.
1 credit
Prerequisite: M OA-243

## MUA - APPLIED MUSIC

M UA-111 Piano I (Non-M ajors) provides instruction in piano designed to develop the student's level of proficiency. The student attends one lesson per week. Lesson times are arranged during the first week of classes.
1 lec., 1 lab., 1 credit

## M UA-115 Applied Music Piano I

(M ajors) provides instruction in piano designed to develop the student's level of proficiency. The student attends one lesson per week. Lesson times are arranged during the first week of classes. 1 lec., 1 lab., 1 credit

## MUA-116 Voice I (Non-Majors)

 provides instruction in voice designed to develop the student's level of proficiency. The student attends one lesson per week. Lesson times are arranged during the first week of classes. 1 lab., 1 creditM UA-117 Voice I (Majors) provides instruction in voice designed to develop the student's level of proficiency. The student attends one lesson per week. Lesson times are arranged during the first week of classes.
1 lab., 1 credit

## M UA-118 Guitar I (Non-Majors)

provides instruction in guitar designed to develop the student's level of proficiency. The student attends one lesson per week. Lesson times are arranged during the first week of classes. 1 lab., 1 credit

M UA-119 Guitar I (Majors) provides instruction in guitar designed to develop the student's level of proficiency. The student attends one lesson per week. Lesson times are arranged during the first week of classes. 1 lab., 1 credit

## M UA-212 Piano II (Non-Majors)

 provides instruction in piano designed to develop the student's level of proficiency. The student attends one lesson per week. Lesson times are arranged during the first week of classes. 1 lec., 1 lab., 1 credit Prerequisite: MUA-111M UA-213 Piano III (Non-M ajors) provides instruction in piano designed to develop the student's level of proficiency. The student attends one lesson per week. Lesson times are arranged during the first week of classes. 1 lec., 1 lab., 1 credit Prerequisite: M UA-212

## M UA-214 Piano IV (Non-Majors)

 provides instruction in piano designed to develop the student's level of proficiency. The student attends one lesson per week. Lesson times are arranged during the first week of classes. 1 lec., 1 lab., 1 creditPrerequisite: MUA-213
M UA-216 Applied Music Piano II
(Majors) provides instruction in piano designed to develop the student's level of proficiency. The student attends one lesson per week. Lesson times are arranged during the first week of classes.
1 lec., 1 lab., 1 credit
Prerequisite: MUA-115

## M UA-217 Applied Music Piano III

(Majors) provides instruction in piano designed to develop the student's level of proficiency. The student attends one lesson per week. Lesson times are arranged during the first week of classes. 1 lec., 1 lab., 1 credit Prerequisite: MUA-216

## M UA-218 Applied Music Piano IV

 (M ajors) provides instruction in piano designed to develop the student's level of proficiency. The student attends one lesson per week. Lesson times are arranged during the first week of classes. 1 lec., 1 lab., 1 credit Prerequisite: M UA-217M UA-219 Voice II (Non-M ajors) provides instruction in voice designed to develop the student's level of proficiency. The student attends one lesson per week. Lesson times are arranged during the first week of classes. 1 lab., 1 credit Prerequisite: M UA-116

## M UA-220 Voice III (Non-Majors)

 provides instruction in voice designed to develop the student's level of proficiency. The student attends one lesson per week. Lesson times are arranged during the first week of classes. 1 lab., 1 creditPrerequisite: MUA-219

## M UA-221 Voice IV (Non-M ajors)

provides instruction in voice designed to develop the student's level of proficiency. The student attends one lesson per week. Lesson times are arranged during the first week of classes. 1 lab., 1 credit
Prerequisite: MUA-220
MUA-222 Voice II (M ajors) provides instruction in voice designed to develop the student's level of proficiency. The student attends one lesson per week. Lesson times are arranged during the first week of classes. 1 lab., 1 credit
Prerequisite: M UA-117
M UA-223 Voice III (Majors) provides instruction in voice designed to develop the student's level of proficiency. The student attends one lesson per week. Lesson times are arranged during the first week of classes. 1 lab., 1 credit
Prerequisite: M UA-222
MUA-224 Voice IV (Majors) provides instruction in voice designed to develop the student's level of proficiency. The student attends one lesson per week. Lesson times are arranged during the first week of classes. 1 lab., 1 credit Prerequisite: M UA-223

## M UA-225 Guitar II (Non-M ajors)

provides instruction in guitar designed to develop the student's level of proficiency. The student attends one lesson per week. Lesson times are arranged during the first week of classes. 1 lab., 1 credit Prerequisite: M UA-118

M UA-226 Guitar III (Non-M ajors)
provides instruction in guitar designed to develop the student's level of proficiency. The student attends one lesson per week. Lesson times are arranged during the first week of classes. 1 lab., 1 credit Prerequisite: M UA-225

## M UA-227 Guitar IV (Non-M ajors)

provides instruction in guitar
designed to develop the student's level of proficiency. The student attends one lesson per w eek. Lesson times are arranged during the first week of classes. 1 lab., 1 credit Prerequisite: MUA-226

M UA-228 Guitar II (M ajors) provides instruction in guitar designed to develop the student's level of proficiency. The student attends one lesson per week. Lesson times are arranged during the first week of classes. 1 lab., 1 credit
Prerequisite: M UA-119
M UA-229 Guitar III (Majors) provides instruction in guitar designed to develop the student's level of proficiency. The student attends one lesson per week. Lesson times are arranged during the first week of classes. 1 lab., 1 credit
Prerequisite: M UA-228
M UA-230 Guitar IV (Majors) provides instruction in guitar designed to develop the student's level of proficiency. The student attends one lesson per week. Lesson times are arranged during the first week of classes. 1 lab., 1 credit
Prerequisite: MUA-229

## MUS - MUSIC

MUS-101 Music Appreciation is a study of the materials and basic components of music, primary musical forms and major musical styles, and of the development of music from the pre-Baroque period to the present.
3 lec., 3 credits
IGeneral Education Course
M US-103 Fundamentals of M usic is a study of such rudiments of music as notation, the structure of scales, intervals, keys, triads, and simple harmonic progressions. 3 lec., 3 credits

M US-105 A History of J azz in America is a study of the historical development of jazz from its origin as a form of Black American folk music to its acceptance as a major expression of American art. 3 lec., 3 credits

M US-107 Music History I is a study of the historical and stylistic development of music from the Gothic period through the Baroque period.
3 lec., 3 credits
IGeneral Education Course
M US-108 Music History II is a
study of the historical and stylistic development of music from the Classical period to the present. 3 lec., 3 credits
IGeneral Education Course

## M US-110 M usic, Art and Drama is

 designed to promote an understanding and appreciation of the human cultural heritage and concentrates upon major developments in music, art and drama during the Baroque, Classical, Romantic, andContemporary periods.
3 lec., 3 credits
IGeneral Education Course
M US-118 Vocal Workshop is an introduction to the basic principles of vocal production. Application of correct vocal techniques is introduced through a series of group and solo singing activities. 3 lab., 2 credits

M US-121 Chorus I requires students to study and to perform standard and contemporary choral literature for mixed voices and to participate in concerts for college ceremonies and functions. 2 lec., 1 credit

M US-122 Chorus II requires students to study and to perform standard and contemporary choral literature for mixed voices and to participate in concerts for college ceremonies and functions. 2 lec., 1 credit

M US-123 Chorus III requires students to study and to perform standard and contemporary choral literature for mixed voices and to participate in concerts for college ceremonies and functions. 2 lec., 1 credit

M US-124 Chorus IV requires students to study and to perform standard and contemporary choral literature for mixed voices and to participate in concerts for college ceremonies and functions. 2 lec., 1 credit

M US-125 Orchestra I requires students to study and to perform standard and contemporary instrumental literature and to participate in con certs for college ceremonies and functions. 2 lec., 1 credit

M US-126 Orchestra II requires students to study and to perform standard and contemporary instrumental literature and to participate in concerts for college ceremonies and functions. 2 lec., 1 credit

M US-127 Orchestra III requires students to study and to perform standard and contemporary instrumental literature and to participate in concerts for college ceremonies and functions. 2 lec., 1 credit

M US-128 Orchestra IV requires students to study and to perform standard and contemporary instrumental literature and to participate in concerts for college ceremonies and functions. 2 lec., 1 credit

M US-131 Class Piano I is an introductory course designed to provide fundamental piano instruction. 1 lec., 2 lab., 2 credits

M US-132 M usic Theory I is a study of elementary diatonic harmony. It includes the study of major scales, natural, harmonic, and melodic forms of minor scales. Also included is the study of interval and triad construction, the figured bass, cadences, plus bass and soprano harmonizations. 3 lec., 2 credits

## MUS-133 M usic Dictation and

 Sight Reading is an introduction to score reading, the rudiments of conducting, musical dictation, and other areas essential to an understanding of music. 3 lec., 2 credits
## M US-134 Ear Training and

Musicianship is a basic course designed to develop a comprehension of musical structure and styles through sight singing and musical dictation. 3 lec., 2 credits

MUS-137 Guitar in the Classroom is a systematic approach to basic guitar technique and an introduction to contemporary music. 2 lec., 2 credits

M US-140J azz Orchestra I requires students to study and to perform jaz, rock, and popular music. Special attention will be given to the technical problems of these musical styles. 2 lec., 1 credit

MUS-141J azz Orchestra II requires students to study and to perform jazz, rock, and popular music. Special attention will be given to the technical problems of these musical styles. 2 lec., 1 credit

## MUS-142 J azz Orchestra III

 requires students to study and to perform jaz, rock, and popular music. Special attention will be given to the technical problems of these musical styles. 2 lec., 1 creditMUS-143J azz Orchestra IV requires students to study and to perform jaz, rock, and popular music. Special attention will be given to the technical problems of these musical styles. 2 lec., 1 credit
Prerequisite: M US-159
MUS-150 Electronic Music I introduces students to the concepts of computer utilization in the manipulation of music. These concepts include composing, arranging, editing and gaining understanding of and developing skills in electronic music from theoretical, aesthetic and practical perspectives. Essential topics to be included when exploring the use of computers and music will be music sequencing and MIDI (Musical Instrument Digital Interface); creating sounds and music with digital audio; computer music and the internet; and desktop music notation.
3 lec., 3 credits

## M US-151 Computer-Based

 Recording I is a systematic approach to sound, music, and multimedia production. The student will be involved with all phases of hard disk-based recording, editing, synchronization technologies, hardware and softw are systems, digital signal processing techniques, and in creating digital audio and MIDI-based music. Whether the projects will be on DAT, a CD-ROM, DVD, or any desktop audio, this class will develop the ability to record and playback multiple tracks of digital audio. 3 lec., 3 creditsM US-152 M usic Business I is a course designed to provide students with important skills and knowledge that will enhance their abilities for a career in fields combining music and business. Basic concepts of how the music industry works and how music is created and marketed will be presented along with discussions of numerous career options. Topics discussed will provide an overview of the record, radio, video, film, television, and advertising industries and how each uses music.
3 lec., 3 credits

M US-231 Class Piano II provides continuing piano instruction for any student who fulfills the prerequisite for the course. The course includes the study of piano literature from the Baroque period to the present and emphasizes the further development of the student's piano technique. 1 lec., 2 lab., 2 credits Prerequisite: M US-131 or by permission of the Department Head

MUS-232 Music Theory II is a study of harmonizations and harmonic progressions. The course includes the study of six-four chords, non-harmonic tones, modulation, and the dominant seventh chord.
3 lec., 2 credits
Prerequisite: MUS-132
MUS-241 Class Piano III is a course designed to develop skills in sight reading, transposition, harmonization styles, and improvisation techniques. Included is the study of piano literature from the Baroque to the present. The emphasis is on good pianist technique.
1 lec., 2 lab., 2 credits
Prerequisite: M US-231
MUS-242 Class Piano IV is a course designed to further develop skills in sight-reading, transposition, harmonization styles, and accompaniment techniques. Included is further study of piano literature from the Baroque to the present. There is continued emphasis on good pianistic technique. 1 lec., 2 lab., 2 credits Prerequisite: M US-241

MUS-250 Electronic Music II is a further study and application of synthesizers, computers, and sequencing. It includes MIDI (M usical Instrument Digital Interface) devices used for notation, arrangement, composition, and performance of music. The topics covered are selected to give a student the background and technical skill necessary to create compositions and sound works. This course is a continuation of Electronic Music I with a focus upon the further development of musical projects utilizing advanced digital techniques. 3 lec., 3 credits Prerequisite: M US-150

## M US-251 Computer-Based

Recording II is a further study and application of both theoretical and applied concepts in studio automation, digital recording, and advanced audio skills in the all digital studio. Students will be provided with hands-on experience and training in digital music technology, synthesizers, samplers, automated mixing, SM PTE time code and MIDI. 3 lec., 3 credits Prerequisite: M US-151

MUS-252 Music Business II provides further study of the music industry for students who wish to seek employment in fields combining music and business. This course will provide an in-depth study focusing upon topics including music publishing, national and international copyright law, live performance, managers and agents, music organizations, recording agreements, music publishing, film and television music production, music merchandising, and other contractual obligations. 3 lec., 3 credits
Prerequisite: M US-152

## NUR - NURSING

## NUR-181 Physic al Assessment

focuses on taking a nursing history including a psycho-social assessment and performing a basic systematic head-to-toe physical assessment of adults using selected techniques. At the end of this course students will be able to perform a beginning level physical assessment. 2 lab., 1 credit
Prerequisite: Admission to the Department
Co-requisites: NUR-182, NUR-183, BIO-109, and PSY-101

## NUR-182 Pharmacology for

 Nurses introduces the student to the drug classification system. Students will learn basic actions and side effects of drugs and drug regulations. M athematical calculations necessary to the practice of nursing are taught, and students must achieve a passing score on a medication calculations test in order to pass this course. 1 lec., 1 credit Prerequisite: Admission to the DepartmentCo-requisites: NUR-181, NUR-183, BIO-109, and PSY-101

NUR-183 Basic Concepts and Skills of Nursing is a foundation course in the nursing program. Concepts developed throughout the program are introduced. Orem's nursing model is presented as the organizing framew ork of the curriculum. The nursing process is introduced as a problem solving technique. Students will be required to pass performance tests and are expected to practice these skills to perfect techniques. Students will plan and implement nursing care in a variety of health care settings. 2 lec., 12 lab., 6 credits Prerequisite: Admission to the Department
Co-requisites: NUR-181, NUR-182, BIO-109, and PSY-101

NUR-281 Adult Health Nursing A is a second level course in the nursing sequence which focuses on the health care of individuals and families who have needs related to fluid and electrolytes, oxygenation and circulation. Students will use the nursing process in a variety of health care settings to assist individuals, families and groups achieve optimum health. This course runs for half the semester concurrently with NUR-282. 4 lec., 12 lab., 7.5 weeks, 4 credits
Prerequisites: NUR-181, NUR-182, NUR-183, BIO-109, and PSY-101 Co-requisites: BIO-209, PSY-106, and NUR-282

## NUR-282 Adult Health Nursing B

is a second level course in the nursing sequence which focuses on the health care of individuals and families who have needs related to nutrition and elimination. Students will use the nursing process in a variety of health care settings to assist individuals and families achieve optimum health. This course runs for half the semester concurrently with NUR-281. 4 lec., 12 lab., 7.5 weeks, 4 credits Prerequisites: NUR-181, NUR-182, NUR-183, BIO-109, and PSY-101 Co-requisites: BIO-209, PSY-106, and NUR-281

NUR-284 M aternal-Child Health Nursing is a third level course in the nursing sequence which focuses on family units, reproduction, childbearing, and the health care needs of infants, children and adolescents to meet universal self-care requisites. Students will use the nursing process in a variety of health care settings to assist individual families and groups achieve optimum health. 6 lec., 12 lab., 7.5 weeks, 5 credits Prerequisites: NUR-281 \& NUR-282 Co-requisites: BIO-104, SOC-101, and NUR-285

NUR-285 Mental Health Nursing is a third-level course in the nursing sequence which focuses on adaptive and maladaptive psycho-social behaviors. Concentration is on the inter- and intrapersonal relationships for infants, children, adolescents and adults. Students will use the nursing process in a variety of health care settings to assist individuals and families achieve optimum health. 4 lec., 12 lab., 7.5 weeks, 4 credits Prerequisites: NUR-281 \& NUR-282 Co-requisites: BIO-104, SOC-101, and NUR-284

NUR-290 Adult Health Nursing C
is a fourth level course in the nursing sequence which focuses on the health care of individuals, families and groups who have self-care deficits related to mobility and neuro-sensory problems. Students will use the nursing process in a variety of health care settings to assist individuals, families and groups achieve optimum health. Professional Role $M$ anagement content will be integrated within this course during clinical conference time. Students will examine principles and skills inherent in advanced nursing practice, case management, health care economics and leadership. Critical thinking exercises, patient care scenarios, role play and discussion will be utilized.
4 lec., 12 lab. x 7.5 wks., 4 credits Prerequisites: NUR-284 \& NUR-285 Co-requisite: NUR-291

N UR-O F F

NUR-291 Adult Health Nursing D is a fourth level course in the nursing sequence which focuses on the health care of individuals and families who have self care deficits related to cellular regulation, sexual practices and endocrine and immune function. Students will use the nursing process in a variety of healthcare settings to assist individuals, families and groups achieve optimum health. Professional Role $M$ anagement content will be integrated within this course during clinical conference time. Students will examine principles and skills inherent in advanced nursing practice, case management, health care economics and leadership. Critical thinking exercise, patient care scenarios, role play and discussion will be utilized. 4 lec., 12 lab. x 7.5 wks., 4 credits
Prerequisites: NU-284 and NU-285 Co-requisite: NUR-290

## OFF - OFFICE SYSTEMS TECHNOLOGY

OFF-101 Keyboarding I provides introductory instruction on the computer keyboard. Speed and accuracy is developed through use of the touch method. The course content introduces memos, e-mail, letters, reports, and manuscripts; the timed writing component requires at least 25 words a minute with three or less errors in order to pass the course. This course can be waived for students who demonstrate proficiency in a credit-by-examination test. 4 lec., 3 credits

## OFF-103 Business

Communications is a course in the communications skills of writing, speaking and listening, with particular application to the field of business. Emphasis is placed on effective techniques to be used in interviews and meetings. Students learn how to prepare business letters, memos, and reports. Oral presentations are included. 3 lec., 3 credits

## OFF-104 Introduction to Office

 Automation is a study of the general concepts of word/information processing in organizations and their relationship to developing job opportunities in the word/ information processing industry. 3 lec., 3 creditsOFF-105 Speedw riting I presents the principles of the alphabet-based Speedwriting shorthand system. As students learn and apply the Speedwriting principles to words commonly used in business, they build dictation speed and develop their transcription skills. Related transcription skills of vocabulary, spelling, and punctuation are also included. 2 lec., 2 lab., 3 credits

## OFF-116 M icrosoft Word for

 Window s-Fundamentals provides basic-level hands-on instruction in this popular word processing program. The course entails preparation of documents such as letters, reports, and tables. This course is not intended to train one for a position in word processing; students who desire a more comprehensive course and who have a keyboarding skill should take OFF-240 instead. 2 lab., 1 credit
## OFF-119 WordPerfect-

Fundamentals provides basic level "hands-on" instruction in this popular word processing program. The course entails preparation of documents such as letters, reports, and tables. The course is not intended to train one for a position in word processing; students who desire a more comprehensive course and who have a keyboarding skill should take OFF- 209 instead. 2 lab., 1 credit

## OFF-123 Business

Communications for Legal
Assistants is a course in the communications skills of writing, speaking, and listening, with particular applications to Paralegals. Emphasis is placed on effective techniques to be used in interviews and meetings. Students learn how to prepare letters, memos, and reports. Oral presentations are included. 3 lec., 3 credits

## OFF-135 Desktop Publishing -

 Microsoft PUBLISHER is a handson experience in the integration of text and graphics using the M icrosoft PUBLISHER softw are and a laser printer to design, edit, and produce a variety of business documents. Know ledge of word processing is helpful. 2 lab, 1 credit
## OFF-140 WordPerfect

Presentations for Window $s$ is a hands-on experience using a presentations graphics program. The course provides instruction in preparing clear, colorful graphics and charts that can be presented as printed pages, overheads, or an interactive slide show displayed directly from a desktop or laptop computer. A knowledge of W INDOWS is not essential but is helpful. 2 lab., 1 credit

## OFF-150 PowerPoint for MS

 Windows is an introduction to the graphics program of Microsoft Office. Users of Pow erPoint will have the ability to create professional-looking, computer-generated presentations. Topics include using a design template and style check to create a presentation; using outline view and clip art to create an electronic slide show; using embedded visuals to enhance a slide show; and creating a presentation containing interactive OLE documents. 2 lab., 1 creditOFF-201 Keyboarding II offers continued development of previously acquired computer keyboarding skills. Students apply their keyboarding skills to the preparation of business letters, memos, e-mail, tables, reports, manuscripts, and preparing mailable copy from rough draft; the timed writing component requires at least 40 words a minute with three or less errors in order to pass the course. This course can be waived for students who demonstrate proficiency in a credit-by-examination test. 4 hours, 3 credits
Prerequisite: OFF-101
OFF-205 Speedw riting II focuses on increasing vocabulary and speed to enable the student to use Speedwriting for taking dictation in addition to using it for note-taking purposes. Proficiency in allied skills of spelling, grammar and punctuation is emphasized. 2 lec., 2 lab., 3 credits Prerequisite: OFF-105

## OFF-207 Administrative Office

Practice is a study of the operational functions required of the secretary and the administrative assistant. Topics covered include information transmittal services, records management, travel and conferences, research and organization of business data, and financial and legal office procedures. 2 lec., 2 lab., 3 credits Prerequisite: OFF-201

## OFF-209 W ordPerfect-

Comprehensive provides basic level "hands-on" instruction in this popular word processing program and progresses to more advanced applications such as macros, mail merge, and the spreadsheet/table feature. Primarily for students intending to work in word process ing positions, it is also applicable for those who desire a more thorough understanding of the program for personal use. Students who do not have the prerequisite keyboarding skill should consider OFF-119 instead. 2 lec., 2 lab., 3 credits Prerequisite: OFF-101

OFF-210 M achine Transcription is designed to help students become proficient transcribers by providing them with realistic experience in transcribing a variety of business documents from prerecorded tapes. Students are also provided with a review of basic language skills nec essary to the production of correct transcripts. 1 lec., 2 lab., 2 credits Prerequisite: OFF-101 (or equivalent) or by permission of Department Head

## OFF-211 M edical Assistant

 Administrative Procedures I provides a comprehensive medical office simulation. Students are trained in machine transcription and are given basic instruction in word processing operations. 2 lec., 2 lab., 3 credits Prerequisite: M OA-140 and OFF-209 (Restricted to M edical Office Assistant curriculum students).
## OFF-212 Medical Assistant

 Administrative Procedures II provides advanced training in medical office procedures and management. special emphasis placed on medical transcription and medical written communications.2 lec., 2 lab., 3 credits
Prerequisite: OFF-211
(Restricted to M edical Office Assistant curriculum students).

## OFF-220 Business Communica-

 tions - Multimedia is a course which will allow students to learn the component skills of developing a multimedia presentation. A discussion of available softw are as well as the development and completion of a multimedia business presentation will be included.1 lec., 2 lab., 2 credits
Prerequisite: OFF-103 (or equivalent)

## OFF-231 Desktop Publishing -

Pagemaker is a "hands-on" experience in the integration of text and graphics using the desktop publishing dedicated softw are of PAGEM AKER and a laser printer to design, edit, and produce a variety of business publications electronically and with color. Knowledge of word processing is needed. 2 lec., 2 lab., 3 credits Prerequisite: OFF-116, OFF-119, OFF209 or OFF-240 or by permission of the Department Head

## OFF-240 M ic rosoft W ord for W indow s-Comprehensive pro-

 vides basic level "hands-on" instruction in this popular word processing program and progresses to more advanced applications such as advanced tables, mail merge, and Autotext. Primarily for students intending to work in word process ing positions, it is also applicable for those who desire a more thorough understanding of the program for personal use. Students who do not have the prerequisite keyboarding skill should consider OFF-116 instead. 2 lec., 2 lab., 3 credits Prerequisite: OFF-101
## OFF-461-464 Co-Op W ork

 Experience (Office Systems Technology) are recommended electives designed to provide the Office Systems Technology student with work experience in an office of his/her specialty. Opportunity for student to learn and practice secretarial skills under professional guidance in a college-approved work environment. Evaluation visitations are performed by a trained faculty member. All student appointments must be approved by the Co-Op Coordinator. J ob placement assistance is available through the Co-Op office.OFF-461 1 lec., plus 60 minimum hours work experience distributed over the semester, 1 credit
OFF--462 1 lec., plus 120 minimum hours work experience distributed over the semester, 2 credits OFF--463 1 lec., plus 180 minimum hours work experience distributed over the semester, 3 credits OFF--464 1 lec., plus 240 minimum hours work experience distributed over the semester, 4 credits Prerequisite: OFF-201

## PHR - PHILOSOPHY \& RELIGION

PHR-101 Introduction to
Philosophy is a study of the basic problems and methods of philosophical inquiry, concentrating on the work of such major thinkers as Plato, Aristotle, Augustine, Aquinas, Descartes, Hume, Kant, Hegel, M arx, Kierkegaard, and Sartre. Topics of discussion include the nature and limits of human knowledge, the existence of God, the differences betw een right and wrong conduct, the nature of the good life, and the meaning and value of human existence. 3 lec., 3 credits IGeneral Education Course

PHR-102 Ethics is an introduction to the basic problems of moral philosophy and to the major moral controversies of the contemporary world. Topics of discussion include ethical theory and its application to contemporary moral issues; abortion and euthanasia; the death penalty; violence, terrorism, and warfare; sexual morality; pornography and censorship; and racial and sexual discrimination. 3 lec., 3 credits IGeneral Education Course

PHR-103 Basic Logic is an introduction to the principles and methods of correct reasoning. Topics of discussion include the relationship betw een logic and language; the distinction betw een formal and informal logic; the detection and avoidance of formal and informal fallacies; the formulation and evaluation of deductive arguments; the differences betw een traditional and modern (symbolic) logic; and the nature, scope, and limits of inductive reasoning. 3 lec., 3 credits
IGeneral Education Course
PHR-104 Topics in Philosophy is an introductory study of major themes in both traditional and modern philosophical literature, concentrating on such topics as the human condition; the scope and limits of human freedom; the human experience of death; the nature of truth, beauty, and goodness; the relationship betw een liberty, equality, and justice; and the human search for the meaning of life. 3 lec., 3 credits IGeneral Education Course

PHR-105 Ethics in Business and
Society is an introductory study of major philosophical and moral issues arising within modern business and social systems. Topics of discussion include the nature of economic and social justice; private property and the profit motive; the social and moral responsibilities of business organizations; the ethics of investment, production, and advertising; and governmental regulation of business. 3 lec., 3 credits IGeneral Education Course

PHR-106 Eastern Philosophy is an introduction to the major philosophical traditions of China and India, concentrating on the work of such major thinkers as Lao Tzu, Confucius, Nagarjuna, Vasubandhu, Shankara, and Ramanuja. Topics of discussion include the nature, problems, and methods of eastern phi losophy; the nature of ultimate reality; the nature of the self; the nature and existence of God; the nature and limits of human know ledge; human nature and the human condition; the meaning and value of life and death; the nature of the good life; and the search for enlightenment. 3 lec., 3 credits IGeneral Education Course Diversity Course

## PHR-110 Introduction to M oral

 Philosophy is a study of the basic problems and methods of western moral philosophy, concentrating on the work of such major thinkers as Plato, Aristotle, Aquinas, Hobbes, Kant, M ill, and Rawls. Topics of discussion include such moral theories as utilitarianism, Kantianism, contractarianism, and natural law theory; the nature of moral reasoning; the nature of the good life; free will, determinism, and moral responsibility. 3 lec., 3 credits IGeneral Education Course
## PHR-120 Introduction to Religion

is a study of major themes in religious and theological thought. Topics of discussion include the nature and existence of God; the relationship between God, humanity, and the universe; human nature and the human condition; religious responses to the problems of human existence; and the relationship between religion and society. 3 lec., 3 credits IGeneral Education Course

## OFF-PHR

PHR-121 Religions of the World is a comparative study of the history, basic beliefs, and characteristic practices of such major religious systems as Hinduism, Buddhism, Taoism, Confucianism, J udaism, Christianity, and Islam. Some attention is also given to the religions of ancient M iddle Eastern and M editerranean peoples, to ancient and modern tribal religions, and to contemporary sectarian and cultic movements.
3 lec., 3 credits
IGeneral Education Course Diversity Course

## PHR-122 Women and Religion

 analyzes the relationship of women to the major religious traditions of the world, including J udaism, Christianity, Islam, Hinduism, Buddhism, and others. The course examines such issues as religious statements about the nature of women, religious codes of behavior for women, and the extent and nature of women's religious participation within the various traditions. 3 lec., 3 creditsIGeneral Education Course Diversity Course

## PHR-124 The Bible and

 Christianity is a study of traditional (Roman Catholic, Eastern Orthodox, and Protestant) and modern (evangelical, fundamentalist, and liberal) Christian perspectives on the theological content of the Old and New Testaments. 3 lec., 3 creditsPHR-125 The Bible andJ udaism is a study of traditional and modern $J$ ew ish interpretations of the Hebrew Bible. The relationship betw een the Bible and the Talmud is also discussed. 3 lec., 3 credits

PHR-203 Intermediate Logic is a second level course in logic for those students who are interested in studying advanced systems of logic and their philosophical foundations. Topics covered include the nature of formal deductive systems; sentential logic (advanced problems and methods); predicate logic and quantification theory; and issues in the philosophy of logic. 3 lec., 3 credits Prerequisite: PHR-103 or M AT-130 IGeneral Education Course

PHY - PHYSICAL SCIENCE
PHY-185 Introduction to Physics covers a series of topics: New tons Laws of M otion, mechanical energy, work and power, heat and heat transfer, electricity and magnetism, light, sound, atomic structure, and radioactivity and relativity.
Conceptual principles are emphasized without dwelling on the rigorous mathematical aspects of the topics studied. Although no math is required, some principles are developed and used. Application of principles to environmental and health problems included. 3 lec., 3 lab., 4 credits

## IGeneral Education Course

PHY-186 General Physics I is the first half of a two-semester, algebra based physics sequence, and is a study of mechanics (motion, forces, and the conservation laws), waves, sound, and fluids. It covers kinematics, dynamics, energy, momentum, rotation, and the mechanical properties of matter. The laws of physics are investigated and applied to problem solving. 3 lec., 3 lab., 4 credits Prerequisite: M AT-045 with a grade of C or better. Recommended prerequisite: High School Trigonometry and one year of High School Physics or PHY-185
IGeneral Education Course
PHY-190 Physics I is the first semester of a three-semester, calculus based physics sequence, and is a study of mechanics (motion, forces, and the conservation laws). It covers kinematics, dynamics, statics, energy, momentum, oscillations, gravity, and the properties of solid matter. The laws of physicsar e investigated and applied to problem solving. 3 lec., 3 lab., 4 credits Prerequisite: M AT-180 with a grade of $C$ or better.
Co-requisite: M AT-280
Recommended prerequisite: PHY-185 or one year of High School Physics IGeneral Education Course

PHY-286 General Physics II is the continuation of PHY-186 General Physics I, and is a study of heat, electricity and magnetism, light, and modern physics. It covers thermodynamics, electrostatics, magnetic fields and forces, capacitance and inductance, electrical and electronic circuits, geometrical and physical optics, relativity, and quantum theory. 3 lec., 3 lab., 4 credits Prerequisite: PHY-186 with a grade of $C$ or better.
IGeneral Education Course

PHY-290 Physics II is the continuation of PHY-190 Physics I, and is primarily a study of electricity and magnetism. It covers electrostatics, electrical circuits, magnetic fields and forces, capacitance and inductance, M axw ell's equations, and the properties of fluids.
3 lec., 3 lab., 4 credits
Prerequisites: M AT-280, PHY-190 with grades of C or better. Co-requisite: M AT-281
IGeneral Education Course
PHY-291 Physics III is the continuation of PH-290 Physics II, and is a study of waves, heat, and modern physics. It covers sound and light, geometrical and physical optics, thermodynamics, relativity, and quantum theory.
3 lec., 3 lab., 4 credits
Prerequisites: M AT-281, PHY-29, with grades of C or better.
Co-requisite: M AT-282
IGeneral Education Course

## PHY-294 Engineering Mechanics

 is a study of the state of rest or motion of bodies under the action of forces. This course builds a founda tion of analytic capability for the solution of a great variety of engineering problems. Topics covered include the statics and dynamics of particles and rigid bodies. 4 lec., 4 credits Prerequisites: M AT-282 and PHY-291 with grades of $C$ or better.
## POL - POLITICAL SCIENCE

POL-101 Americ an Government
is the study of the American national political system and the uses, options, patterns, and limitations of public power. The course examines the theoretical roots of government, the American adaptation of the W estern political tradition, the Constitution, decision making structures, the role of the people in government, political parties, and civil rights. Current political problems are analyzed and discussed.
3 lec., 3 credits
IGeneral Education Course
POL-102 International Relations is an examination of the basic elements and processes of the modern nation-state system. Political power, nationalism, diplomacy, international law, international organizations, bal-ance-of-power strategies, imperialism, regionalism, polycentrism, and current world issues are analyzed. 3 lec., 3 credits IGeneral Education Course

## POL-103 M odern Political

Ideologies focuses on the ideologies that have dominated contemporary world politics. Such theories as Socialism, Communism, Fascism, and Democracy are studied. 3 lec., 3 credits IGeneral Education Course

## POL-104 State and Local

Government is the study of state, county, and municipal political systems. The course examines the making and enforcement of public policy and the political roles of the people, political parties, political machines, and pressure groups. intergovernmental relations and evolving patterns of metropolitan government are analyzed with an emphasis on New J ersey and Bergen County. 3 lec., 3 credits
IGeneral Education Course
POL-106 Themes in U.S. History (M odern Americ an Presidency) is an analytical and historical examination of the development of the office and powers of the modern American presidency. Emphasis is placed on studying the roles of the president as described in the Constitution, the relationship of the executive with the other branches of government, presidential views of the office, the presidential election system, and presidential character and personality. 3 lec., 3 credits

POL-107 Introduction to Politics is a survey of the basic concepts and methodologies of political science. Topics considered include power, comparative and international politics, the state, government, forms of representation, and methods of social science analysis. 3 lec., 3 credits IGeneral Education Course

POL-116 Labor Law is a study of the laws that govern labor unions and of labor-management relations, union organizing, collective bargaining, contract enforcement, job security and opportunities, working conditions, union members' rights, and labormanagement disputes. Emphasis is placed on understanding the National Labor Relations Act and its amendments, the National Labor Relations Board, and Supreme Court decisions relevant to labor law. Extensive use of case-studies is made. 3 lec., 3 credits

POL-122 Collective B argaining is
an introduction to the theory and practice of collective bargaining, including the legal basis, the goals, the structure, and the content of labor management contracts, grievance and arbitration, the responsibilities and obligations of the parties to collective bargaining, and the costs, strategies, and other considerations involved in reaching collective bargaining agreement. The emphasis in the course is on the private sector, and it introduces the student to actual contract negotiations and enforcement. 3 lec., 3 credits

## POL-461-463 Co-Op Work

 Experience (Politic al Science) provides a student with practical, supervised work experience in the area of political science. This program is under professional guidance in a collegeapproved work environment. J ob placement assistance is available through the Cooperative Education Office.POL-461, 1 lec., plus 60 minimum hours work experience distributed over the semester, 1 credit
POL-462, 1 lec., plus 120 minimum hours work experience distributed over the semester, 2 credits
POL-463, 1 lec., plus 180 minimum hours work experience distributed over the semester, 3 credits
Prerequisite: Any Political Science course

## PSY - PSYCHOLOGY

PSY-101 General Psychology is an analysis of human behavior with special reference to thinking, learning, memory, perception, emotion, individual differences in intelligence, psychotherapy, and personality. The scientific nature and practical relevance of psychological investigations and research findings are discussed.
3 lec., 3 credits
IGeneral Education Course
PSY-102 Abnormal Psychology is an examination of psychological adjustment and of the prevention and treatment of psychological disorders. The course focuses on the framework established by the Diagnostic and Statistical M anual of $M$ ental Disorders. Topics of discussion include community mental health problems, stress and coping mechanisms, anxiety disorders, sexual variations and dysfunction, and the more severe disorders such as schizophrenia.
3 lec., 3 credits
IGeneral Education Course

## PSY-103 Educational Psychology

introduces the student to psychology as applied to the teaching-learning process. Topics of discussion include the varieties of human learning, the physical, social, and cognitive development of the learner, the teacher's use of the environment to influence learning, the teacher's role in education, and education self direction. 3 lec., 3 credits

## PSY-104 Psychology of Human

Relations is designed to encourage the active participation of each student in a series of activities and lectures that promote increased selfaw areness and self-concept. Source materials in the psychology of human relations, communications, group behavior, adjustment, and leadership are studied and discussed.
3 lec., 3 credits

## PSY-106 Developmental

Psychology is a survey course that provides an ovenview of the psychological development of the individual through the lifespan. The changes during the childhood, adolescent, adult and elderly periods are studies via theories applied to the whole human lifecycle. Theories about psychosocial, moral, and language development as well as the effect of work, gender, intelligence, personality, health, and other factors on human development are examined.
3 lec., 3 credits
IGeneral Education Course
PSY-108 The Psychology of Aging reflects the interdisciplinary character of contemporary gerontology. The focus of the course is on psychological issues associated with the last third of the human life cycle. Topics of discussion include theories of aging, the psy-cho-social characteristics of an aging population, how to deal with psychobiological changes, changes in mental functions, mental disorders and their treatment, pre-retirement counseling, parent-child relations, sex differences in the aging process, cross-cultural perspectives on aging, and life review through oral history and autobiography. 3 lec., 3 credits

PSY-109 Industrial Psychology is a study of organizational behavior focusing on psychological theories, techniques, and procedures relevant to the work place. Topics discussed include the characteristics of job related behavior, personnel selection, personnel training, job satisfaction, work motivation, job enlargement, and leadership on the job. 3 lec., 3 credits

PSY-110 Psychology of Sexuality emphasizes the changing concepts in human sexuality. Of importance are socialization, deviance, treatment, and psychotherapy in the field of sexuality. Of major interest are the paraphilia, victimization, homosexuality, gender identity, and the psychodynamics involved in sexual expression. 3 credits, 3 hours

## PSY-115 Behavior M odification

 focuses on changing problem behavior by using techniques derived from learning theory. Topics of discussion include assertiveness training, biofeedback, hypnosis, controlling reinforcement contingencies, aversive conditioning, modeling, and systematic desensitization. The use of behavior modification in industry, hospitals, schools, and prisons is considered. 3 lec., 3 credits
## PSY-121 Comparative

 Psychology (The Relationship Betw een Birds, People and the Natural Environment) uses Bergen County as an environmental laboratory. Birds are studied in their natural habitat and used as a barometer of the changes that have developed in our immediate psychological environment. Behavioral comparisons are made betw een human and animal behavior. Such topics as the quality of life experience, psychophysiology, group or single living disturbances, sexual behavior, territoriality and self-preservation are discussed. 3 lec., 3 credits
## PSY-122 Ethology and Environmental Psychology

 emphasizes the interaction of the fields of ethology and environmental psychology. Ethology is the study of natural behavior in natural environments, and environmental psychology is the study of the effects of environmental change of human behavior. Topics considered include territoriality, mobbing activity, sexual rituals, habitat destruction, and internal physical and environmental structures. This course is offered at offcampus sites (e.g., The Florida Everglades). See instructor before registering. 3 lec., 3 credits
## PSY-123 Cross-Cultural

Psychology is an analysis of psychological development in a variety of cultural settings. The course explains the similarities and differences in personality between people with different cultural backgrounds. Topics included in the course are childbearing, abnormal and normal behavior, sex roles, attitudes toward authority, and moral/religious traditions in various cultures. 3 lec., 3 credits

PSY-127 Stress M anagement is a study of stressful tension and of its psychological and physiological management. Students practice several techniques of coping with stress including problem solving, relaxation techniques, biofeed-backup, exercise, and work strategies. Personal stress management approaches are emphasized. 3 lec., 3 credits

## PSY-201 Child Psychology is

designed to help the student understand the significant stages of motor, cognitive, linguistic, emotional, and social development of the child as these are influenced by genetic, cultural, and individual forces from the prenatal period through middle childhood. 3 lec., 3 credits
Prerequisite: PSY-101
IGeneral Education Course

## PSY-202 Psychology of

 Adolescence is the study of human development from late childhood to adulthood. The course examines the physical, psychological, sexual, and social development of adolescents, the development of identity and selfconcept, relationships with parents, and the maturation process. 3 lec., 3 creditsPrerequisite: PSY-101

## PSY-203 Psychology of

Personality is an introduction to the most influential theories of personality. The focus of the course is on the contemporary relevance of various theoretical approaches. Students have the opportunity to apply personality theory to the understanding of case history material. 3 lec., 3 credits Prerequisite: PSY-101

PSY-206 Adult Development is the study of human behavior from adolescence through early, middle, and late adulthood. Developmental tasks, psychological crises and coping processes appropriate to each state are examined. Several theoretical perspectives on aging, current research on adult development, and the foundation of a flexible approach to the understanding of the whole person are discussed. 3 lec., 3 credits Prerequisite: PSY-101

PSY-207 Psychology of Women is an in-depth examination of the psychology of women. The course ana lyzes the interplay of biological and cultural factors as they affect gender roles. "Typical" female behaviors are examined and assessed in terms of these factors in an attempt to understand the bases of social similarities as well as differences.
3 lec., 3 credits
Prerequisite: PSY-101
IGeneral Education Course
Diversity Course

## PSY-461-463 Co-Op W ork

Experience (Psychology) provides the student with the opportunity to gain human relations work experience in social institutions that relate to his/her career goals. The program is under professional guidance in a college approved work environment. Students are supervised by a faculty member, and job placement assistance is available through the Cooperative Education Office.
PSY-461 1 lec., plus 60 minimum hours work experience distributed over the semester, 1 credit
PSY-462 1 lec., plus 120 minimum hours work experience distributed over the semester, 2 credits
PSY-463 1 lec., plus 180 minimum hours work experience distributed over the semester, 3 credits
Prerequisite: PSY-101 or by permission of the Department Head

PTA - PHYSICAL THERAPIST ASSISTANT

PTA-101 Introduction to Physical Therapist Assistant introduces the student to the role of the PTA in the health care delivery system and in the field of rehabilitation. The team approach to care and service delivery and the complimentary functions of team members will be emphasized.
Issues such as licensure, professional organization and legal and ethical parameters of practice will be considered. Content will include medical terminology, documentation, reimbursement, and psycho-social aspects of disability. Students will volunteer and observe physical therapy treatments and practice in participating clinics. 2 lec., 3 lab., 3 credits
Co-requisite: BIO-109, PHY-185, PTA-122

## PTA-122 Physic al Therapist

 Assistant Procedures I teaches fundamentals of patient care including body mechanics, positioning, bed mobility and exercise, wound healing and infection control, range of motion, measurement for assistive devices and gait training. Patient assessment modalities such as vital signs and goniometry are also included as well as introduction to therapeutic exercise. 4 lec., 6 lab., 6 creditsCo-requisites: PTA-101, BIO-109, PHY-185

PTA-201 Kinesiology is the study of human movement and the neuromusculoskeletal structures and their function in relation to activity. Topics include biomechanics, muscle physiology, physical laws and principles of leverage, posture, and gait. Students will be taught manual muscle testing and challenged to problem solve and analyze basic exercises and movements. 3 lec., 3 lab., 4 credits Prerequisites: BIO-109, PHY-185, PTA101, PTA-122
Co-requisite: PTA-222, BIO-209

## PTA-222 Physical Therapist

 Assistant Procedures II teaches the basic theory of the physiology and application of heat, cold, light, electricity, sound, compression, and traction. Modalities used in physical therapy treatments such as hot/coldpacks, ultrasound, electrotherapy, hydrotherapy, and mechanical traction are practiced in the laboratory.
3 lec., 6 lab., 5 credits
Prerequisites: BIO-109, PHY-185, PTA-
101, PTA-122
Co-requisites: BIO-209, PTA-201

PTA-223 Physical Therapist Assistant Procedures III teaches the fundamentals of therapeutic exercise and treatment guidelines that are most commonly used in treating musculoskeletal injuries and disorders. Exposure to exercise equipment, treatment protocols, exercise modifications, and teaching home exercise programs are offered in the laboratory. 4 lec., 6 lab., 6 credits Prerequisite: BIO-209, PTA-201, PTA222, PTA-245
Co-requisites: PTA-231, PTA-241

## PTA-224 Physical Therapist

 Assistant Procedures IV covers the impairments, functional limitations, and physical therapy treatments of patients with neurological disorders, amputations, and burns. The course also covers the considerations for treating geriatric, pediatric, and cardiopulmonary patients. 4 lec., 3 lab., 5 credits Prerequisites: PTA-223, PTA-231, PTA-241Co-requisites: PTA-232, PTA-242

## PTA-231 Clinic al Educ ation I is

 assignment to physical therapy clinic sites where the student practices technqiues previously or currently learned in the academic setting under the supervision of a licensed physical therapist or physical therapist assistant.16 clinical hours, 2 credits.
Prerequisites: BIO-209, PTA-201,
PTA-222, PTA-245
Co-requisites: PTA-223, PTA-241

## PTA-232 Clinic al Education II the

student continues to be supervised by a licensed physical therapist or physical therapist assistant in assigned clinical sites. Emphasis is on continued development of proficiency in patient treatments and documentation.
24 clinical hours, 2 credits
Prerequisites: PTA-223, PTA-231, PTA-241
Co-requisites: PTA-224, PTA-242

## PTA-233 Clinical Education III

allows the student under the supervision of a licensed physical therapist or physical therapist assistant to continue developing proficiency of entrylevel physical therapy and patient care skills in assigned clinical sites. 40 clinical hours, 2 credits Prerequisites: PTA-224, PTA-232, PTA-242 Co-requisites: PTA-243

## PTA-241 Clinic al Seminar I

addresses the student's experience in the clinic including the role of various health care practitioners, physical therapy documentation, and reimbursement issues. Special topics will be discussed including current practice issues. Didactic and clinical experiences are incorporated in case study presentations by students.
1 lec., 1 credit
Prerequisites: BIO-209, PTA-201, PTA-222, PTA-245
Co-requisite: PTA-223, PTA-231

## PTA-242 Clinic al Seminar II

addresses the student's experience in the clinic and begins to prepare the student for licensure and employment. Special topics will be discussed including employment preparation skills and current licensure issues. Didactic and clinical experiences are incorporated in case study presentations by students.
1 lec., 1 credit
Prerequisites: PTA-223, PTA-231, PTA-241
Co-requisites: PTA-224, PTA-232
PTA-243 Clinic al Seminar III prepares the student for licensure examination and entry-level practice as a physical therapist assistant by discussion, presentations by students, and speakers on physical therapy topics of interest. Comprehensive examination will be given to help the student assess his/her readiness for taking the PTA licensing exam.
1 lec., 1 credit
Prerequisite: PTA-224, PTA-232, PTA-242
Co-requisite: PTA-233
PTA-245 Disease and Impairment introduces the student to disease and injury of the various systems of the human body. Disease etiology, pathophysiology, clinical symptoms, impairment, and treatment considerations will be studies. Emphasis is placed on the diseases and injuries most commonly treated in physical therapy. 3 lec., 3 credits
Prerequisites: BIO-209, PTA-201, PTA-222

## RAD - RADIOGRAPHY

## RAD-180 Introduction to

 Radiography is a study of the basic aspects of the health care system, the profession of Radiography and patient care. Topics will include moral, legal, and professional responsibilities of a radiographer, communication techniques, medical \& surgical asepsis, vital signs, communicable diseases, and medical emergencies.2 lec., 2 credits
RAD-181 Radiography I introduces the study of radiography and the ethical considerations of this medical field. The theory and application of positioning, dark room chemistry, radiation protection techniques, and radiographic exposure with associated film critiques and laboratory experiments are covered in the course. 3 lec., 6 lab., 5 credits

RAD-182 Radiography Clinical I is designed to introduce the student to the physical layout and operation of a department of radiology. This course requires the performance of some routine examinations under the direct supervision of a registered radiographer and a college clinical instructor. The student rotates throughout three affiliated hospitals during this experience. 8 lab., 1 credit

RAD-183 Radiographic Pathology is a survey of medical and surgical diseases designed to acquaint the student with changes caused by disease which have a relation to Radiography. Emphasis is placed on pathogenesis, signs, symptoms, diagnosis and treatment. Student projects, associated film presentations, and critiques are also included.
2 lec., 2 credits
Prerequisite: RAD 281

## RAD-184 Special Procedures

 and Imaging Modalities I introduces the student to advanced radi ographic examinations of the brain, spinal column, vascular system, lungs, reproductive organs, skeleton, and other body systems. In addition, specialized imaging modalities and advances in imaging systems and equipment are discussed.3 lec., 3 credits

RAD-250 Cross Sectional Anatomy for Specialty Imaging is a course that involves the study of the structure and function of human anatomy in the cross sectional mode. Among the topics included are abdomen, thoracic, neck and cranial imaging. The course content will be presented through lectures, discussion and laboratory exercises. Anatomy identification plates and a workbook will be utilized in this course.
3 lec., 3 lab., 4 credits
Prerequisite: Registered Radiologic Technologist and NJ License

RAD-251 Computer Tomography presents the concepts, content and technology of CT imaging. Topics to be presented include patient care, principles of operation; image processing and display, system components; image procedures and image quality. Clinical application related to neurological, cardiac, abdominal and musculoskeletal imaging will be discussed. This course meets eligibility requirements for the specialty certification examination in Computerized Tomography. 3 lec., 3 credits Prerequisite: Registered Radiologic Technologist and NJ License

RAD-252 Magnetic Resonance Imaging begins with the very basic including the physical principles, artifacts, image contrast; image quality, clinical application and safety issues. The student will then move into the more intricate physical principles of $M R$, including rapid imaging, fast spin echo, K-space, contrast agents as well as the principles and clinical applications of MRA and spectroscopy. In addition, imaging concerns such as positioning tips, compensation for artifacts, dynamic and functional imaging and interventional procedures will be discussed. This course meets eligibility requirements for the specialty certification in $M$ agnetic Resonance Imaging. 3 lec., 3 credits
Prerequisite: Registered Radiologic Technologist and NJ License

## RAD-253 Magnetic Resonance

 Imaging Clinical Practicum is a 75 hour clinical experience in a neighboring hospital or specialty imaging center. The student will perform routine (M RI) examinations on patients under direct supervision of a specialty technologist. Clinical records will be maintained and monitored by faculty.75 lab., 1 credit
Prerequisite: RAD-252

## RAD-254 Computerized

 Tomography Clinical Practicum is a 75 hour clinical experience in a neighboring hospital or specialty imaging center. The student will perform routine (CT) examinations on patients under direct supervision of a specialty technologist. Clinical records w ill be maintained and monitored by faculty. 75 lab., 1 creditPrerequisite: RAD-251
RAD-275 Special Procedures and Imaging Modalities II presents the advanced imaging techniques required for nuclear medicine, mammography, tomography, and CT scanning. In addition, the basic concepts and principles of radiation therapy are discussed. 2 lec., 2 credits
Prerequisite: RAD-184, RAD-276

## RAD-276 Radiographic Health and

Protection describes the various types of ionizing radiations, their origins, and their effect on biological materials. M ethods of practice that afford greater protection from ionizing radiation for both patient and practitioner are also covered in detail.
3 lec., 3 credits
Prerequisites: BIO-109, RAD-181

## RAD-280 Image Production and

 Evaluation is a study of the theoretical and practical aspects of radiographic equipment and image recording systems. The photographic and geometric characteristics of a diagnostic radiographic image are presented. Evaluation of changes caused in the radiographic image through the use of different types of imaging equipment and recording systems are demonstrated and discussed. Also included in the course are the basic concepts of the origin and effects of ionizing radiations on a patient and a radiographic image. These topics are supported through the performance of laboratory experiments and radiography based computer softw are. 3 hours, 3 credits Prerequisites: RAD-276, RAD-281, RAD-283
## RAD-281 Radiography II reinforces

 basic concepts presented in Radiography I. The major topics covered include the upper extremities, technique conversions, film quality, the skull, spinal procedures, sterile technique, basic first aid with associated terminology, and various laboratory experiments.3 lec., 3 lab., 4 credits
Prerequisite: RAD-180, RAD-181, and RAD-182

RAD-282 Radiography Clinic al II requires students to spend two clinical days a w eek in a radiology department where students will perform routine as well as some complex examinations under the direct supervision of a registered radiographer and a college clinical instructor. Procedures performed are evaluated on the basis of a competency based clinical education system.
16 lab. 1 credit
Prerequisite: RAD-182

## RAD-283 Intermediate

 Radiography Clinical provides extensive training in the operation of a department of radiology as well as practical experience in patient handling and routine examinations under the direct supervision of a registered radiographer and a college clinical instructor. Students spend 12 thirtytwo hour weeks meeting established requirements for competency based clinical education. 384 lab., 2 credits Prerequisites: RAD-281 and RAD-282
## RAD-285 Radiography III is a

 study of the anatomy, positioning, and radiography of the bones of the cranium and face; pediatric, portable and trauma radiography; basic medical techniques and patient care; and medical terminology. Included in the course is structured practice in evaluation and improvement of radiographs of all parts of the body. 3 lec., 3 lab., 4 credits Prerequisites: RAD-281 and RAD-283RAD-286 Radiography Clinical III requires the performance of routine, complex, and advanced X-ray procedures under the supervision of a registered radiographer and college clinical instructor in a Radiology Department. Students spend 16 hours a week for 15 weeks meeting the established requirements for competency based clinical education. 16 lab., 1 credit Prerequisite: RAD-282 and RAD-283

RAD-288 Radiography IV incorporates two major areas of study. The first portion of the course is a comprehensive presentation of radiation detection and protection principles and quality control with appropriate laboratory experiments. The second half is devoted to hands-on experience with computers and computer software. A continuation of the study of medical terminology is also included. 3 lec., 3 lab., 4 credits Prerequisite: RAD-276, RAD-285, and RAD-286

## RAD-REA

RAD-289 Radiography Clinical IV requires the performance of routine, complex, and advanced $X$-ray procedures under the supervision of a registered radiographer and a college clinical instructor in a radiology department. Students spend 24 hours per week for 15 weeks meeting the established requirements for competency based clinical education. Rotations into specialty areas and elective rotations are also begun.
24 lab., 2 credits
Prerequisite: RAD-276, RAD-285, and RAD-286

## RAD-290 Senior Student Seminar

 requires the performance of routine, complex and advanced X-ray procedures under the supervision of a registered radiographer and a college clinical instructor in a radiography department. Students spend 32 hours per week for 15 weeks meeting the established requirements for competency based clinical education. Specialty clinical elective rotations continue. The student will also attend a series of 12 four-hour lectures. The lectures are designed to amplify the students entry level skills as a radiographer. Upon completion of the required 1834 clinical hours and all course work, the student becomes ARRT eligible. 480 lab., 3 creditsPrerequisites: RAD-182, RAD-276, RAD-282, RAD-283, RAD-286, and RAD-289

## REA - REAL ESTATE

REA-101 Principles of Real Estate I is an introduction to real estate law. Topics covered include property rights, title concepts, liens, contracts, mortgages, deeds, and other property instruments. Students must complete this course and REA-201 to qualify for the New J ersey Real Estate Salesperson's Examination. 3 lec., 3 credits

## REA-201 Principles of Real Estate

 II is a structured review of real estate law with emphasis on leases, land-lord-tenant relations, business opportunity sales, appraisals, the law of agency, the License Act and Regulations, and other state and municipal laws and regulations. Students must complete this course and REA-101 to qualify as a candidate for the New J ersey Real Estate Salesperson's Examination.3 lec., 3 credits

RSP - RESPIRATORY THERAPY

## RSP-119 Introduction to

 Respiratory Therapy provides the student with an in-depth understanding of medical gas administration, humidity and aerosol therapy, safety systems, and infection control. Students will learn the application of mechanical devices utilized to maintain patent airways and emergency cardiopulmonary resuscitation. The gas laws, physiology, and medical equipment terminology is taught. The laboratory exercises provide students with an opportunity to develop their skills in oxygen administration, CPR, and airway management.3 lec., 3 lab., 4 credits

## RSP-121 Respiratory Therapy

 Clinical Externship I introduces the student to the hospital environment. The student studies the relationship of the respiratory therapy department with other medical departments in the hospital. The student learns charting, patient rounds, equipment, and medical ethics during this rotation. 16 hours per week, 2 creditsRSP-122 Clinical Medic ine offers the student an opportunity to study the various disease entities and their effect on the cardiopulmonary system. The pathophysiology, diagnosis, and treatment of pulmonary disease are covered in this course.
3 lec., 3 credits

## RSP-200 Pharmacology for

 Respiratory Therapists introduces the student to the medications uti lized in the treatment of patients with acute and chronic cardiopulmonary disorders. 2 lec., 2 credits Co-requisites: RSP-119 and RSP-121
## RSP-222 Cardiopulmonary

Anatomy and Physiology places special emphasis on the structure and function of the respiratory and circulatory systems. The laboratory segment of the course consists of demonstrations of these two systems and the application of medical physiological techniques.
3 lec., 3 lab., 4 credits
Prerequisite: BIO-109
Co-requisite: BIO-209

## RSP-225 Respiratory Therapy

## Clinical Externship II provides the

students with an opportunity to administer aerosol therapy treatments, perform cardiopulmonary resuscitation, and evaluate infection control. 16 hours/ week (224 hours) 2 credits Prerequisites: RSP-119, RSP-121, and RSP-200

RSP-226 Respiratory Therapy Clinical Externship III gives the student a further opportunity to develop clinical skills of airway management, cardiopulmonary resuscitation, aerosol therapy, and patient evaluation rounds. 40 hours/week ( 6 weeks, 240 hours), 2 credits Prerequisite: RSP-222 and RSP-225

## RSP-227 M anagement in Health

Care provides the student with an opportunity to learn the skills necessary to supervise a respiratory thera py department. Emphasis is placed on interpersonal relationships, scheduling employees, budgeting, purchasing equipment, cost effective management, and computer technology development. Computer skills are required and students will be given opportunities to work on computer programs in the allied health computer lab. 2 lec., 2 credits Prerequisite: RSP-231

## RSP-229 Mechanical Ventilation

 provides the student with the skills necessary to evaluate patients in need of ventilatory support, to select mechanical ventilatory parameters, and to monitor the patient laboratory exercises, provide the student with an opportunity to operate ventilators, to change ventilator modalities, and to repair ventilators. 3 lec., 3 lab., 4 credits
## RSP-231 Respiratory Therapy

 Clinical Externship IV provides the students with clinical experiences in the complete cardiopulmonary assessment of the patient. Emphasis of clinical training is in the critical care areas. 2 lab., 2 credit Prerequisite: RSP-226Co-requisite: RSP-229 and RSP-240

## RSP-235 Respiratory Therapy

 Clinical Externship V enables the student to continue training in the critical care areas, pulmonary function laboratory and pulmonary clinical. Emphasis is placed on patient evaluation and decision making skills. 16 hours/week (224 hours), 2 credits Prerequisite: RSP-231RSP-240 Diagnostic M onitoring and Patient Assessment provides the student with an understanding of logical therapeutic interventions based upon pulmonary and hemodynamic procedures utilized in the collection, analysis, and the interpreta tion of this data in diagnosis and evaluation of treatment of the patient. Attention is given to funda mental physiological concept because these concepts provide a foundation for discussion of cardiopulmonary pathophysiology and common cardiopulmonary abnormalities that occur in patients.
3 lec., 3 lab., 4 credits
Prerequisites: RSP-222 \& CHM-112
RSP-241 Neonatal and Pediatric Respiratory Care is a comprehensive overview of pediatric and neonatal respiratory care. Special considerations of respiratory care practice unique to pediatrics and neonatology are discussed. Topics include pediatric anatomy and physiology, fetal development, clinical assessment, oxygen therapy, airw ay management, mechanical ventilation, resuscitation, cardiopulmonary pathophysiology and disorders specific to this specialty.
2 lec., 2 lab., 3 credits
Prerequisite: RSP-229

## SOC - SOCIOLOGY

SOC-101 Sociology is an examination of the culture and structure of human societies. The course focuses on social groups and institutions, their norms and controls, and how and why they change. Topics of discussion include the family, education, deviance, race and ethnicity, gender roles, social change, and social inequalities. 3 lec., 3 credits IGeneral Education Course

## SOC-102 Introduction to Human

 Services is an analysis of social service systems in the United States. The course provides an overview of educational, mental health, child care, and recreational social service agencies. Through group participation, lectures, roleplaying, and field trips, students learn to recognize the common aspects of helping within the broad field of human services.3 lec., 3 credits

SOC-103 Sociology of the Family
is a study of the oldest and most fundamental social institution. This course analyzes various types of courtship, parenting, human sexuality, marital breakup, and family patterns. Family life is view ed from the perspective of society and of the individual. Students are encouraged to examine their own family patterns in relation to the broad range of possibilities that are discussed.
3 lec., 3 credits
IGeneral Education Course
SOC-105 Urban Sociology is an analysis of the modern urban community. Topics of discussion include the history of the city, urban institutions, urban behavior patterns, urban problems and social dislocation within metropolitan areas, community planning, and urban renew al. Field trips to major urban centers are an integral part of the course. 3 lec., 3 credits

SOC-107 Death and Dying is a study of the sociological, psychological, and biological information that relates to dying, death, and the adjustment to death. Topics of discussion include euthanasia, abortion, bereavement, and attitudes tow ard death in our society and around the world. The intention of the course is to help students come to an understanding of a reality that we must all confront.
3 lec., 3 credits

## SOC-120 Sociology of Gender

 Roles is a study of the changing roles of men and women in contemporary society. Topics of discussion include the biological bases for differentiation in gender roles, male and female roles in a cross -cultural perspective, changing expectations for men and women in work and sports, the sexual revolution, and the consequences of gender role change. 3 lec., 3 credits IGeneral Education Course Diversity CourseSOC-121 The Changing Roles of Women is an introductory, interdisciplinary study of the changing roles of women today. Topics of discussion include women's roles in a cross-cultural and historical perspective, the influence of biology, sexuality, and psychology on the roles of women, women in the w ork force, women as portrayed in literature, the impact of religious beliefs on women, women's changing family roles, and traditional and presentday feminism. 3 lec., 3 credits IGeneral Education Course Diversity Course

SOC-201 Social Problems is a study of contemporary social issues and problems in the United States. Various theoretical perspectives are utilized in an effort to understand why particular issues become defined as "problems," to determine the origin of social problems, and to critically assess proposed solutions to these perceived problems. Topics of discussion can include, but are not limited to, crime and delinquency, poverty, family violence, overpopulation, war, AIDS, sexual assault, mental illness, racism, sexism, and classism (social inequality).
3 lec., 3 credits
Prerequisite: SOC-101
IGeneral Education Course

## SOC-222 Ethnic and Minority

Group Relations is a study of the diverse ethnic and multicultural structure of the United States. Particular attention is given to Native Americans, Hispanic Americans, Asian Americans, African Americans, Italian Americans, Irish Americans, and $J$ ewish Americans. Topics include social, economic, and familial structures of various ethnic groups, the dislocation of new immigrants, prejudice and discrimination, and the life styles of various minority groups. 3 lec., 3 credits
Prerequisite: SOC-101
IGeneral Education Course
Diversity Course

## SOC-461-463 Co-Op W ork

Experience (Sociology) are courses that provide a student with the opportunity to gain human relations work experience in social institutions that relate to his/her career goals. This program is under professional guidance in a collegeapproved work environment.
Students are supervised by a faculty member, and job placement assistance is available through the Co-Op office.

SOC-461 1 lec., plus 60 minimum hours work experience distributed over the semester, 1 credit
SOC-462 1 lec., plus 120 minimum hours work experience distributed over the semester, 2 credits
SOC-463 1 lec., plus 180 minimum hours work experience distributed over the semester, 3 credits Prerequisite: S0-101 or by permission of the Department Head

## SPE - SPEECH COMMUNICATION

SPE-001 Speaking/Listening I for International Students is designed for beginning students whose native language is not English. The course aims at developing comprehension of the spoken language, greater fluency, and intelligibility in speaking American English. This course should be taken in conjunction with American Language I.
3 lec., 3 credits (non-degree credits) Prerequisites: ALP-005, ALP-006, ALP-007, ALP-009 or CELT placement Co-requisites: ALP-041, ALP-042, ALP-043, and ALP-044

## SPE-002 Speaking/Listening II for International Students is

 designed for intermediate students whose native language is not English. The course aims at extending and reinforcing students' skills in listening comprehension, pronunciation, and fluency through extensive practice in using spoken American English. This course should be taken in conjunction with American Language II.3 lec., 3 credits (non-degree credits) Prerequisites: SPE-001, ALP-041, ALP-042, ALP-043 or CELT placement Co-requisites: ALP-051, ALP-052, ALP-053, and ALP-054

## SPE-003 Speaking/Listening III

 for International Students is designed for students for whom English is not a native language. This course seeks to expand students' listening skills, language comprehension, and speech fluency and to develop their confidence in the speaking of English. This course should be taken in conjunction with American Language III.3 lec., 3 credits (non-degree credit) Prerequisites: SPE-001, SPE-002, ALP-051, ALP-052, ALP-053, ALP-054 or CELT placement Co-requisites: ALP-061, ALP 062, ALP-063, and ALP-064

SPE-005 Basic Communication is a practical course specifically designed to improve general communication skills. The course provides usable techniques in speaking and listening skills.
3 lec., 3 credits (non-degree credits)

## SPE-006 Americ an Language

Pronunciation is a course designed to help the non-native speakers of English improve their American pronunciation. Basic drill material on all the individual sounds, the more important combinations of the English sound system, and the study of intonations and stress in ordinary speech patterns will be provided for practice.
2 lab., 1 credit (non-degree credit)

## SPE-009 Americ an Language Foundations: Speaking and

 Listening is a course for international students with little or no exposure to English. It provides them with instruction in basic expression and understanding simple oral language, including following instructions. They will learn to use vocabulary in everyday speaking situations. 3 hours, 3 non-degree credits
## SPE-111 Speech Communication

guides students through the methods of organizing, delivering, and evaluating the spoken word in vari ous speech situations. Intrapersonal and interpersonal communication in conjunction with public address are studied. Students placed in the AIM S program must take SPE-005 before taking SPE-111.
3 lec., 3 credits
IGeneral Education Course

## SPE-112 Voice and Articulation

 is designed to improve the vocal and articulatory components of speech. Areas of study and practice include pronunciation, vocal production, and the sounds of standard American English. Speaking assignments provide the students with practice in the skills that are necessary for effective verbal communication. 2 lec., 1 lab., 3 credits†SPE-114 Intercultural Communication provides the student with practical information regarding the problems present in communicating with people of other cultures. It also explores cross-cultural differences in the communication process in order to learn how to communicate effectively with one another across cultural boundaries.
3 lec., 3 credits
(Not offered during 2000-2001)
†SPE-116 Interpersonal Communications is a study of the way people communicate in the process of developing and maintaining relationships. Class activities include the analysis of communica tion in dyadic and small group situations. The following topics are examined with respect to their effects on interpersonal communication: self-aw areness, shyness and assertiveness, listening, attraction, conflict, loneliness, and love.
3 lec., 3 credits
(Not offered during 2000-2001)
$\dagger$ SPE-119 Effective Speaking for Business and Professional
Personnel is a practical course designed for business and professional personnel who wish to have communication skills in dyadic and group presentations relevant to their professions and fields of employment. 3 lec., 3 credits
(Not offered during 2000-2001)
$\dagger$ SPE-122 Argumentation and
Debate is a course in the methods of effective argumentation, persuasion, and educational debate, with emphasis on rational decision-making. This course is designed for students who want preparation for participation in a democratic society. 3 lec., 3 credits
(Not offered during 2000-2001)

## $\dagger$ SPE-213 Small Group

Discussion is an introduction to the various discussion forms. M ajor topics include the applicability of specific discussion forms to particular situations, the responsibilities of a discussion leader, and practical experience in the use of these forms in controlling the quality and discipline by which a discussion moves in a positive direction tow ard a specific goal. 3 hours, 3 credits
Prerequisite: SPE-111
(Not offered during 2000-2001)
$\dagger$ Not Offered during 2000-2001)

## SUR - SURGICAL <br> TECHNOLOGY

SUR-101 Principles of Surgical Technology I is a study of the surgical technologist's role as a member of the surgical team. Surgical principles, technique, and procedures are taught. The laboratory segment consists of demonstrations and retum demonstrations of performance skills.
5 lec., 3 lab., 6 credits
Co-requisite: SUR-102, 103, 104

S UR-THR
SUR-102 Surgical Technology Externship I introduces the student to the operating room environment. Approximately six weeks are spent on campus in a pre-clinical segment, during which time the student is exposed to background information and practice of entry level skills. The remaining time is spent in the clinical area with directed experience in surgical procedures and operating room practice. 16 hours per week, 2 credits Co-requisite: SUR-101, 103, 104

SUR-103 Surgical Terminology is a study of the basic structure of medical and surgical words, including roots, combining forms, prefixes and suffixes. Emphasis is placed on correct pronunciation and definition of surgical terms, allow ing the student to build a professional vocabulary for working in the operating room. 1 lec., 1 credit
Co-requisite: SUR-101 and SUR-102

## SUR-104 Microbiological

Applications in Surgery is a study of microorganisms and their relationship to disease. This overview of the fundamentals of Microbiology includes historical aspects, cell structure, and the functions of microorganisms. Emphasis is placed on infectious disease, modes of transmission, infection control and their clinical application in surgery. Discussion is centered on the role of the Surgical Technologist regarding operating room techniques, infection control and sterilization, and disinfecting of supplies, instruments and the environment. 2 lec., 2 credits
Co-requisite: SUR-102, 103, 104

## SUR-201 Principles of Surgical

Technology II is an in depth study of specialty surgical procedures with emphasis on common diseases and surgical procedures in relation to the various body systems.
5 lec., 5 credits
Prerequisites: SUR-101 and SUR-102 Co-requisite: SUR-202

## SUR-202 Surgic al Technology

Externship II gives the student the opportunity for further directed experience in the operating room. The student will scrub for procedures in general and specialty areas surgery. A study of surgical instrumentation and equipment is also included in this course. 24 hours per week, 2 credits Prerequisites: SUR-101 and SUR-102 Co-requisite: SUR-201

SUR-203 Surgic al Technology Externship III enables the student to continue with directed experience in the operating room. Emphasis is on refining skills and scrubbing for a wide variety of surgical procedures. 40 hours per week, 1 credit Prerequisite: SUR-201 and SUR-202

## TEC - TECHNOLOGICAL SCIENCES

TEC-180 Problem Solving Using Technology is a "hands-on" course using computers and graphic calculators to solve problems related to various industrial and engineering technologies. 3 lec., 3 lab., 4 credits

## TEC-190 Introduction to

 Geographic Information Systems (GIS) introduces the student to the basic underlying principles of geography that deal with measurements and analysis of the earth's surface and the field of geographic information systems. The critical underlying issues of GIS will be discussed in the context of the learned principles and promote critical thinking by the student. Students will learn the fundamentals of computer generated GIS by using the leading GIS software product, ArcView. 2 lec., 2 lab., 3 credits
## TEC-191 Introduction to M apping

 and Cartography introduces students to the science of cartography including a history of the discipline and its current practices. Topics include basic map use and analysis, the display of quantitative and qualitative information, and map production techniques.2 lec., 2 lab., 3 credits

## TEC-201 Science Laboratory

Tec hnology I is designed to give students a working know ledge of the instrumentation used in the modern chemical and biochemical laboratory. Emphasis will be placed on the study of techniques that have the broadest range of applications. Topics studied will include enzyme purification, DNA sequencing, spectroscopic techniques, chromatography and computer interfacing of laboratory instruments. 8 lab., 4 credits
Prerequisite: CHM - 212 or by $p$ ermission of the Department Head

## TEC-202 Science Laboratory

Technology II is designed to give students a working knowledge of the instrumentation used in the modern physics laboratory. Emphasis will be placed on the study of techniques that have the broadest range of applications. Topics will include lasers and other optical techniques as well as materials science and scanning/probe techniques. 8 lab., 4 credits Prerequisites: PHY-186 and TEC-201 or by permission of Department Head

## TEC-203 W ork B ased Learning for Science Technologies is

 designed to give students experience in on-the-job laboratory situations to which they can apply the lessons of their interdisciplinary, advanced laboratory-based science technology courses. Students in this course will be counseled by industry and faculty mentors. 4 lab., 1 credit Prerequisites: TEC-201 Co-requisite: TEC-202 or by permission of the Department Head
## TEC-292 Introduction to Remote

Sensing explores the topics of satellite imagery and aerial photography. Students gain an understanding of how digital satellite images and air photos are created and used in geology, environmental management and civil engineering.
2 lec., 2 lab., 3 credits
Prerequiste: TEC-191 or by permission of the Department Head

## TEC-293 Advanced Geographic

 Information Systems broadens understanding of GIS and includes discussions of cartographic data formats, cartographic representations, computer programming for GIS, database management and Internet-based mapping. The laboratory section will focus on use of advanced functions of ArcView GIS including all extensions, GISprogramming with Avenue and M ap Objects. Students learn the principles of GIS project management and data documentation.2 lec., 2 lab., 3 credits
Prerequisite: TEC-190 or by permission of the Department Head

[^38]THR-110 Basic Acting Techniques utilizes practical exercises to aid the beginning actor in developing technique from which to build self confidence and believable characterizations. The course stresses the importance of self-discipline in developing creativity and freedom in voice and movement. Assignments include the presentation of scenes from various works during the semester. 2 lec., 2 lab., 3 credits

## THR-111 Oral Interpretation of

 Literature explores the development of performance and vocal techniques in the oral presentation of all types of literature. The use of variety in pitch, volume, tempo, and attitude is stressed in communicating the author's meaning through the reader to the audience. Following specific guidelines, most of the literature is selected directly by each student. 3 lec., 3 credits
## THR-113 M ovement for the

 Performing Artist is a practical course in directing the student to experience, explore, and visualize movements. The aim of the course is to help the actor become a more physically secure and expressive performer. 3 hours, 2 creditsTHR-114 Audition Techniques is a practical course which helps the student investigate, select, and prepare audition material appropriate to the individual and the audition call. The course includes exercises in handling "cold" readings and in learning to look at auditions from the casting director's point of view. 2 lec., 2 credits

## THR-116 Theatre Production

 Workshop is a practical course that produces a selected dramatic work as a result of collective class involvement in casting, set design and construction, lighting, costuming, make-up, promotion, rehearsal, stage management, and performance. The workshop culminates in a public performance of the project.4 lec., 4 credits

## THR-117 Theatre Performance and

 Production is a practical course in which students are introduced to acting and/or technical production. As a part of the course, students will actually be involved in theatre productions. 2 hours, 2 creditsTHR-120 Stage Makeup provides a practical approach to makeup techniques for theatre and related arts. Through practical experience, students investigate basic, character, and stylized makeup. 1 lec., 1 lab., 1 credit

THR-124 Dance Experience is a practical and critical introduction to various dance forms. By attending performances, tracing the development of the particular form, studying the demands the art form makes upon its performers, discussing critics' views, and evaluating the experience, students are exposed to broad representation of dance experiences. 3 hours, 3 credits

THR-131 Introduction to Stagecraft and Lighting introduces the student to the theory and practice of stagecraft. It includes study in scene design, practice in construction of sets, and the setting and control of lighting. 2 lec., 2 lab., 3 credits

THR-132 Stage Management is an analysis of the techniques and responsibilities of the stage manager in the various forms of the performing arts. Areas of study include stage management in the theatre, concerts, and television. 1 lec., 1 credit

## THR-136 Stage Electrics is

 designed to familiarize the student with the fundamental skills requisite to actualizing lighting and sound designs. Emphasis is given to the identification, use, and maintenance of equipment, as well as to basic electronics theory and practice. Special attention is given to basic theories and aesthetics of light and sound as design elements. 4 hours, 3 credits
## THR-140 Introduction to the

Cinema is a study of film as an art form. The course is designed to aw aken a more sensitive and critical response to the cinema through an understanding of its form, content, development, and criticism. Films are screened to demonstrate these elements. 2 lec., 2 lab., 3 credits IGeneral Education Course

## THR-150 Summer Theatre

Workshop is an intensive, practical course in the requisite skills in producing a live theatrical production.
Students will be exposed to all areas of the theatre crafts. A selected play will be completely produced for public presentation. This will be accomplished through collective class involvement in play selection, casting, rehearsal, stage management, makeup, set design and construction, lighting, costuming, promotion, and performance. 6 hours, 6 credits

THR-210 Scene Study includes advanced work in characterization, vocal and body control, and exercise in the development of style and technique relevant to scenes and plays selected for study and presentation. 2 lec., 2 lab., 3 credits Prerequisite: THR-110

THR-236 Lighting Design is a practical course in the principles and actual techniques of lighting design. Course work includes lectures, demonstrations, and lab sessions on equipment, color optics, and the setting and control of lighting for all forms of stage performance. A portion of the course is devoted to the contemporary lighting techniques used in clubs and rock concerts. 3 hours, 3 credits
Prerequisite: TH-136

## THR-240 The Classic Cinema is

 an in-depth study of the style, philosophy, and significance of selected directors and films. 3 lec., 3 credits Prerequisite: TH-140
## THR-464 Co-Op W ork Experience

 (Stage Technology) is a field work course in pre-production, production, and/or shop work arranged on an individual basis by the student. The student must attend periodic seminars and/or prepare reports or other projects as required by the Theatre Arts faculty. Credit is based on a pre-determined number of hours/weeks worked in an approved theatre shop, or other entertainment facility. J ob placement assistance is available through the Co-Op office. 1 lec., plus 240 minimum hours work experience distributed over the semester, 4 credits.Prerequisite: Permission of the Department Head

## TRV - TRAVEL \& TOURISM

TRV-101 Introduction to Travel and Tourism is an introductory course which helps to familiarize the student with the impact of travel and tourism in our country and abroad. Students gain an over-all view of the various phases of tourism in the U.S. and around the w orld. Latest developments in airlines, cruises, rail and ground transport are studied. This course is not travel-agent specific.
3 lec., 3 credits

TRV-103 Travel Area Studies is a global course geared to the travel and tourism student. Time zones and IATA (International Air Transport Association) conferences throughout the world, and resort/regional mapwork in the United States and worldwide will be included. Students read regional/global research materials and plan itineraries for specified destinations. Destination video tapes are viewed. 3 lec., 3 credits

## TRV-104 Travel-Electronic

 Ticketing SABRE is a hands-on course utilizing a frame-by-frame, lesson-by-lesson program simulation. The course includes creating PNRs (Passenger Name Records) on the computer and booking reservations off-line. A computer printer is used for practice in printing of tickets. 2 lec., 2 lab., 3 credits Co-requisite: TRV-101 or by permission of the Department Head
## TRV-204 Travel Planning and

 Marketing explores the world of corporate, group, incentive, resort, and vacation travel and tourism. Students review corporate travel policies/manuals, develop/package group tours, discuss incentive travel used for employee motivation and organization fund raising. Prime vacation locations/properties are examined. Students explore a vari ety of techniques used in the industry to attract visitors to the most popular destinations. Students develop several domestic, international, resort, and special-interest vacations from original concept to conclusion. 3 lec., 3 credits Prerequisite: TRV-101
## TRV-205 Travel Documentation

Lab offers the student a course in the detailed documentation work in travel agencies. ARC (Airline Reporting Corporation) manuals guide the preparation of reconciliation reports, other required forms and agency documents such as M COs (M iscellaneous Charge Orders) and Ticket (REN) Exchanges. Students gain actual hands-on experience using non-validated training materials for the work of this course. Students must be able to touch type. 2 lab., 1 credit Prerequisite: OFF-101 and TRV-101

## TH R-TR V

TRV-206 Travel and Tourism Management-Electronic is a course designed for students planning to become professionals in the travel and tourism industry. Computer software covers backoffice streamlining and offers the student the opportunity to learn quick and easy ways to read computer run-offs for keeping track of commissions from airlines, hotels, car rental agencies, and transfer transportation.
1 lec., 2 lab., 2 credits
Prerequisite: OFF-101 and TRV-101

## TRV-207 Travel and Tourism

Study-Abroad combines classroom instruction with foreign field study. Ten hours of classroom study are devoted to an investigation of the social/cultural/ tourism aspects of the destination. The subsequent one-w eek field study-abroad includes visits to tourism related industries at the destination. 3 credits
Prerequisite: TRV-101
TRV-210 Corporate Travel discusses topics specific to corporate travel and familiarizes the student with different types of travel delivery. Topics include corporate accounts, specialized services, operating a corporate travel department and international corporate travel. 3 lec., 3 credits Prerequisite: TRV-101 or by permission of the Department Head

## TRV-461-464 Co-Op W ork

 Experience (Travel) enables the student to learn and practice travel industry skills under professional guidance in a college approved work environment. The students work is supervised by a trained faculty member. All student appointments must be approved by the Co-Op Coordinator. Co-Op job placement assistance is available through the Co-Op office.TRV-461 1 lec., plus 60 minimum hours work experience distributed over the semester, 1 credit
TRV-462 1 lec., plus 120 minimum hours work experience distributed over the semester, 2 credits TRV-463 1 lec., plus 180 minimum hours work experience distributed over the semester, 3 credits TRV-464 1 lec., plus 240 minimum hours work experience distributed over the semester, 4 credits Prerequisite: TRV-101

## VET - VETERINARY <br> TECHNOLOGY

VET-102 Introduction to Veterinary
Technology introduces the student to the profession of veterinary technology through a study of the duties and responsibilities of the graduate verterinary technician and available career opportunities. In addition, other basic issues such as occupational safety and health, membership in professional organizations, certification and licensing, professional standards and behavior, the human-companion animal bond, and introductory animal restraint and handling will be covered. The course is the prerequisite to all other VET courses. 1 lec., 1 credit Co-requisite: VET-103

## VET-103 Veterinary M edic al

 Terminology introduces the student to prefixes, suffixes, and word roots used in the language of veterinary medicine. Topics include veterinary medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems in the various species. Upon completion, students should be able to pronounce, spell, and define medical terms as related to body systems and their pathological disorders. 1 lec., 1 credit Co-requisite: VET-102
## VET-104 Research Animal

Technology is an introduction to the handling, husbandry, and nursing care of the common laboratory animals. In addition, classroom study will cover the principles and ethics of animal research, as well as the laws that regulate the use of animals to ensure that they are treated humanely. Laboratory sessions provide hands-on training in restraint, drug administration, sample collection, anesthesia and research techniques. Dissection is required. 2 lec., 3 lab., 3 credits Prerequisite: VET-102, VET-103 and admission to the professional component of the program

VET-110 Nutrition and Principles of Feeding is designed to introduce the fundamentals of nutrition. M aterials cover the six classes of nutrients (w ater, protein, carbohydrates, lipids, minerals, and vitamins); their general functions, deficiencies, and toxicities; general digestion, absorption, utilization, and excretion of these classes in domestic animals. We will cover the feeding of animals in health and disease during various stages of the life cycle. Of primary concem will be the dietary management of specific diseases that affect domestic animals. 2 lec., 2 credits
Prerequisites: VET-102, VET-103 and admission to the professional component of the program

## VET-112 Veterinary Pharmacology

is a study of pharmacology and its practical applications. This course is designed to give the student a basic understanding of drugs and other substances used in the treatment of disease. Emphasis is on classification of drugs based on their effects and therapeutic usage, sources of drugs, standards and regulations, weights and measures, conversions, labeling, and pharmacy maintenance. In addition, the student studies possible toxicological effects of these drugs and other toxic plants and substances.
3 lec., 3 credits
Prerequisites: VET-102, VET-103 and admission to the professional component of the program

VET-203 Veterinary Nursing I will furnish the skills and considerations necessary for the nursing duties of the veterinary technician. Topics include general animal care, handling and restraint, administration of medications and bandaging techniques. Special emphasis will be placed on safety of both patient and handler. Includes laboratory demonstrations and practice on live animals. 2 lec., 3 lab., 3 credits Prerequisites: VET-102, VET-103, VET-110, VET-112, BIO-115, BIO-215

## VET-205 Clinical Laboratory

Procedures I deals with the examination of blood, urine, and other body substances for diagnostic and prognostic purposes in veterinary practice. Students will learn to perform complete blood counts, blood chemistries, serological tests, and urinalysis. Lecture periods will cover the theories on which the tests are based and the relevance of laboratory results in the evaluation of the health of animals. 2 lec., 3 lab., 3 credits Prerequisites: VET-102, VET-103, BIO115, BIO-215

VET-207 Diagnostic Imaging is an introduction to basic radiology, ultrasound and associated diagnostic techniques. The student will learn how to correctly position a patient, calculate exposure values, expose radiographic film, and process radiographs of diagnositc quality, both manually and automatically, for the veterinarian to examine. Special emphasis is placed on the potential hazards of radiation and occupational safety. Laboratory experiences provide skills practice in radiographic technique.
2 lec., 3 lab., 3 credits
Prerequisites: VET-102, VET-103, BIO115, BIO-215

VET-214 Veterinary Nursing II is a continuation of Veterinary N ursing I. Principles of emergency care, intensive care, administration of drugs and fluids, shock therapy, oxygen therapy and the application of indw elling catheters will be discussed. This course will include a general study of diseases, their defi nition, etiology, pathogenesis, clinical signs, diagnosis, prevention, and treatment. Intensive care nursing will include hands on experience with animals and models. 2 lec., 3 lab., 3 credits Prerequisite: VET-203

## VET-216 Veterinary Office

M anagement is designed to introduce the student to modern veterinary hospital business practices. A study of management techniques, inventory procedures, basic marketing, accounting and computer skills, medical records, personnel management, and psychology of client and staff relations. Emphasizes professional ethics. 3 lec., 3 credits Prerequisite: VET-102 and VET-103

## VET-217 Clinic al Laboratory

Procedures II will cover basic parasitology, cytology, histology and necropsy techniques. The student will study the life cycles, pathogenesis, identification, prevention, control and public health concerns of internal and external parasites in domestic animals. Cytological specimens will be collected and processed. A necropsy prosection will be performed, with the collection of specimens and preparation of histology slides for examination by the veterinarian.
2 lec., 3 lab., 3 credits
Prerequisite: VET-205

## VET-218 Farm Animal Nursing

is designed to teach the student the skills associated with assisting the large animal practitioner. The essential tasks relating to handling, restraint, treatment, venipuncture and blood collecting, anesthesia and administration of drugs and fluids to farm animals will be covered. A study of diseases of these animals with emphasis on disease control, prevention, treatment, and immunization will be given. Common surgical procedures, as well as specimen collection and preservation. 2 lec., 3 lab., 3 credits Prerequisites: VET-110, VET-112

VET-219 Surgical Assistance and Anesthesia includes in-depth discussion and hands on experience with hygiene of the surgical suite and surgical prep room, asepsis, surgical instruments, and sterilization. The student will learn the basics of animal anesthesia as used in surgical procedures. It includes drugs and equipment for anesthetic administration, recovery, and emergencies, along with management of these preparations. We will also provide the student with in-depth coverage of preoperative and postoperative patient care. 2 lec., 3 lab., 3 credits Prerequisite: VET-203

## VET-220 Veterinary Technology

 Externship is a clinical experience providing the student with the opportunity to refine technical skills in areas such as handling and restraint, nursing care and treatment, surgical assistance, radiology, anesthesia, dental prophylaxis, diagnostic laboratory procedures, practice management and client education. Students will spend 12 weeks in a pre-approved small animal hospital, animal research facility, or other allied animal health facility within the metropolitan area. Students train under the supervision of licensed veterinarians and graduate veterinary technicians. 2 credits, 384 hours ( $32 \mathrm{hrs} / \mathrm{wk} \times 12$ $w \mathrm{ks}=384 \mathrm{hrs})$Prerequisites: Completion of all other VET courses and by permission of the instructor.

## WEX - WELLNESS \&EXERCISE SCIENCE

WEX-101 Dynamics of Health and Fitness is a theory based study of exercise and its effects on humans. Topics investigated are lifestyle issues in wellness including cardiovascular function, weight management and nutrition, strength, flexibility, stress management and principles/programs of exercising. 2 lec., 1 lab., 2 credits IGeneral Education Course

W EX-104 Aquacise is an opportunity for the student to increase fitness through selected aquatic activities such as in-the-w ater stretching, running, and calisthenic movements. A comfortable exercise program will be adapted to each person's tolerance level. No swimming ability is required. 2 lab., 1 credit

W EX-105 Fitness Center Plus is a physical activity which provides students with the opportunity to participate in personal conditioning programs. Fitness evaluations and computer prescribed exercise programs are generated for each student. The Nautilus and aerobic equipment in the Fitness Center is employed to develop and maintain these individualized fitness programs.
2 lab., 1 credit

## W EX-106 Nutrition for Exercise

 and Fitness is a course that explores concepts of nutrition as they apply to exercise and performance. Topics include bioenergetics, thermodynamics and the energy equation, ergogenic aids, supplements and computerized diet analysis. Required for Exercise Science Certificate and Degree.3 lec., 3 credits

## WEX-125 Introduction to

Recreation is an historical and philosophical study of leisure and recreation and of the agencies and institutions that serve the recreational needs of society.
3 lec., 3 credits
W EX-128 Sports Fundamentals is a practical study of the fundamental principles and techniques of major sports. Students experience and practice various common sports activities. 3 lec., 3 credits

## W EX-129 Organization and

 Direction of Recreational Activities is a study of the nature and function of play and recreation and of the general principles of organization in the recreational field. 3 lec., 3 credits
## WEX-141 Coaching Team Sports:

Baseball is a study of the basic concepts and skills involved in coaching baseball. Students learn techniques of hitting, pitching, and catching, defensive play, base running, and strategies. 2 lab., 1 credit

## W EX-144 Coaching Team Sports:

 Basketball is a study of the concepts, theories, skills, rules, and organizational principles involved in coaching basketball. 2 lec., 1 credit
## W EX-159 Cardio-Pulmonary Resuscitation and Emergency

 First Aid provides the student with the know ledge and practical skills needed to respond to various emergency situations including: burns; wounds; respiratory and cardiac problems; broken bones; poisoning; etc. Students will receive certification in CPR and First Aid upon successful completion of the course. 3 lec., 3 hoursWEX-163 Nutrition Today is an investigation of basic nutrition concepts. Current studies and findings are explored and evaluated. Information is used to formulate practices which maximize health benefits. 3 lec., 3 credits

W EX-164 Exercise Science is a theory based investigation of the effects of exercise on human health, fitness, and sport performance. Emphasis is on basic principles of exercise physiology, exercise prescription, bioenergetics, body composition, training programs, and practical applications to the exercise setting. Recommended as a prerequisite to WEX-106, W EX-183 and W EX-184. Requirement for Exercise Science Certificate and Degree. 3 lec., 1 lab., 3 credits

WEX-167 Self-Defense is a course which provides the opportunity to learn basic techniques in judo, karate, and jujitsu. (Yellow belt promotion is optional.) 2 lab., 1 credit

WEX-171 Beginning Golf is a study of the fundamental theories, skills, etiquette and rules needed to play the game of golf. 2 lab., 1 credit

WEX-173 Beginner Tennis is a course which provides the student with the opportunity to develop the fundamental skills of the game. It also acquaints students with the basic rules, regulations and strategy of both singles and doubles play. 2 lab., 1 credit

WEX-174 Volleyball is a course which provides fundamental skills, strategies, and know ledge of power volleyball through teaching-learning experiences and active participation. 2 lab., 1 credit

## W EX-175 Beginner Level

Swimming (for non-swimmers) is a basic course for non-swimmers that includes fundamental water safety and survival, crawl stroke, back crawl, breast stroke, side stroke, and recreational aquatic activities. 2 lab., 1 credit

WEX-182 Fitness M easurement and Interpretation is a course involving analysis of the parameters of fitness, sport performance, and their assessment. Topics include measurement protocols and the quantitative expression of body composition, aerobic capacity and energy expenditure, strength, endurance, flexibility and sport specific elements relative to exercise application. Requirement for Exercise Science Certificate and Degree. 3 lec., 3 credits

WEX-183 Programs and Principles of Conditioning is an application of theories explored in Exercise Science (W EX-164). This course is designed to provide the student with opportunities to apply conditioning concepts, teaching methodology and presentation experience in a one-on-one and co op teaching setting. 3 lec., 3 credits Prerequisites: WEX-164 and WEX-182

## WEX-184 Sports Medicine I-

 Theory \& Practice develops an awareness of sports medicine and provides the student with concepts, knowledge, and practical skills in the areas of prevention, evaluation, management, and rehabilitation of exer-cise-induced trauma. Athletic taping for support of joints and muscles is taught and practiced. 3 lec., 3 credits
## W EX-201 Aerobic Dance

 (Dynamics of Health and Fitness Experience) is an application of the theories of training and condi tioning explored in WEX 101. The course is designed to provide students with opportunities to increase cardiovascular endurance, flexibility, muscular strength, and help reduce stress. Different modes of aerobic training will be explored including dance style movements to music. 2 lab., 1 creditPrerequisite: W EX-101
IGeneral Education Course

## W EX-202 Body Conditioning (Dynamics of Health and Fitness Experience) is an application of

 the theories explored in WEX-101. The course is designed to effect changes in such fitness areas as cardio respiratory endurance, flexibility, strength, and body composition thorough aerobic conditioning, progressive resistance exercises, and flexibility exercises. The development of personal exercise regimens for lifelong participation is emphasized. 2 lab., 1 credit Prerequisite: W EX-101IGeneral Education Course
W EX-204 Keep Young, Fit and Alive (Dynamics of Health and Fitness Experience) is an application of the theories explored in WEX-101. The course uses exercise as a stress management technique, in the management/prevention of low-back musculoskeletal problems, for muscular strength and endurance, and for flexibility. An analysis of dietary practices is included. 2 lab., 1 credit Prerequisite: W EX-101
IGeneral Education Course

## W EX-205 Swimming for

 Conditioning (Dynamics of Health and Fitness Experience) is an application of the theories explored in WEX-101. The course is designed to effect changes in cardiovascular endurance, muscular strength, and flexibility.2 lab., 1 credit
Prerequisite: W EX-101
IGeneral Education Course

W EX-W RT

WEX-206 W eight Training (Dynamics of Health and Fitness
Experience) is an application of the theories explored in WEX-101. The course is designed to effect changes in muscular strength and endurance through a variety of appropriate training techniques and applications. The development of personal exercise regimens for life-
long participation is emphasized.
2 lab., 1 credit
Prerequisite: W EX-101
IGeneral Education Course

## WEX-208 40+ Fitness (Dynamics

 of Health and FitnessExperience) is an application of the theories explored in WEX-101. The course is designed to provide students ( 40 years or older) with opportunities to increase fitness through individualized programs emphasizing flexibility, aerobic conditioning, muscle strength/ endurance and weight management. 2 lab., 1 credit
Prerequisite: W EX-101
IGeneral Education Course

## W EX-223 Beyond Beginning

Tennis provides the student with an opportunity to refine the fundamental tennis skills and to learn more advanced skills and strategies.
2 lab., 1 credit
Prerequisite: W EX-173

## W EX-230 Skin and Scuba Diving

is a course which allows students to develop basic skills in skin and scuba diving by means of lectures, demonstrations, and class practice. Students should have good swimming ability. (International certification is optional.) 2 lab., 1 credit

W EX-245 Intermediate Golf is a study of advanced golf skills. 2 lab., 1 credit Prerequisite: W EX-171

WEX-260 Exercise Physiology is
a course which investigates how the human body responds to exercise. Theory and practical application will draw from musculoskeletal, cardiovascular, endocrine and neuromuscu lar considerations. 3 lec., 3 credits Prerequisites: W EX-164 and W EX-182

## WEX-261 Biomechanics of

Exercise is a course which explores and analyzes human movement in the exercise setting. Analysis of exercise movements relative to the function of the exercise setting. A nalysis of exercise movements relative to the function of the muscular, skeletal and nervous systems forms the focus of class work.
3 lec., 3 credits
Prerequisites: W EX-164 and W EX-183

WEX-262 Senior Fitness Training
I is a course which explores and analyzes specific criteria for planning and implementing exercise programs for seniors. Specific needs for this age group and program charac teristics will be stressed.
3 lec., 3 credits
Prerequisites: W EX-164, W EX-159, WEX 182 or by permission of the Department Head

## W EX-263 Senior Fitness Training

II focuses on organizing, designing and presenting various adult fitness programs. Specific gerontological factors such as medical limitations and high/low fitness levels that apply to senior fitness will be explored as well as marketing and business considerations.
3 lec., 3 credits

## W EX-284 Sports Medic ine II -

 Theory \& Practice is an extension of Sports M edicine I content as it applies to specific joints and musculature. A natomical considerations involved in the mechanics of exercise induced trauma are investigated along with injury evaluation, preven tion, and rehabilitation techniques. 3 lec., 3 credits Prerequisite: W EX-184W EX-461-463 Co-Op W ork Experience Recreation are elective courses designed to provide students with part-time work experience in the recreation field. The courses are supervised by faculty members who must approve all student placements.
W EX-461 1 lec., plus 60 minimum hours work experience distributed over the semester, 1 credit W EX-462 1 lec., plus 120 minimum hours work experience distributed over the semester, 2 credits
W EX-463 1 lec., plus 180 minimum hours work experience distributed over the semester, 3 credits Prerequisites: W EX-125 or W EX-164

## W EX-471 Co-Op W ork

Experience/Exercise Science
enables the student to gain essential "hands on" experience in a fitness center under professional guidance and supervision.
1 lec., plus 60 minimum hours work experience over the semester, 1 credit
Prerequisites: W EX-164 and W EX-183

## WRT - WRITING

W RT-101 English Composition I gives students the opportunity for extensive practice in expository writing. The course emphasizes the writing process, and concentrates on the organization and development of ideas in written work and on student responses to reading. Attention is devoted to correct language usage and on research and the basic techniques of M LA documentation. 3 lec., 3 credits
Prerequisite: EBS-017, EBS-024, ALP-063, or by placement exam IGeneral Education Course

W RT-201 English Composition II
continues the emphasis of English Composition I on the writing process, and on critical reading and thinking skills. Particular attention is devoted to writing with sources and to argumentative writing. Emphasis is placed on correct language usage and on research and the techniques of M LA documentation.
3 lec., 3 credits
Prerequisite: W RT-101
IGeneral Education Course
W RT-202 Technical Writing is an introduction to the theory and practice of expository writing in the business, scientific, and industrial fields. Special attention is given to the writing of progress reports, sales and statistical reports, and other types of office, clinical, and scientific material. 3 lec., 3 credits Prerequisite: W RT-101 Prerequisite or Co-requisite: W RT-201 or by permission of the Department Head

W RT-204 Creative W riting is a workshop course in which students write in such forms as poetry, fiction, and drama. Students read and discuss each other's work as well as that of published authors.
3 lec., 3 credits
Prerequisite: W RT-101

## W RT-205 Creative W riting

 Workshop in Fiction gives students the opportunity to focus on the elements of fiction writing. Students read and discuss each other's work. 3 lec., 3 credits Prerequisite: W RT-101
# Directory 

The following pages contain a listing of the college's governing boards, administration, faculty, and advisory committees.

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## Executive Staff

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Virginia L. Laughlin, Executive Vice President; B.A., Hunter College, City University of New York; M.A., Teachers College, Columbia University; Professional Diploma, Columbia University
David L. Levinson, Academic Vice President; B.A., State
University of New York at New Paltz; M.A., Ph.D; University of Massachusetts at Amherst

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Michael D. Redmond, Chief Officer of Technology and Information Services; B.A., Northeastern Bible College; M.A., Rutgers, The State University of New Jersey; Ph.D., Drew University

## Administrative Staff

Dean of Institute for Corporate Training, vacant
Nancy Carr, Director of Specialized Services and Director of the Center for Collegiate Deaf Education; B.A., State University of New York; M.Ed., Kent State University; Certificate in Administration in Rehabilitation Programs, San Diego University

Barbara Erdsneker, Director of Research and Planning; B.S., M.A., The City College of New York; M.S., Iona College.

Nancy Haiduck, Director of Public Relations; B.A., Brooklyn College, The City University of New York; M.Ed., Bernard M. Baruch College, The City University of New York

Gayle Hannah, Director of Human Resources; A.S., B.S., M.A., Rutgers, The State University of New Jersey; C.S.W.
Walter Hecht, Assistant Dean of the Philip Ciarco Jr. Learning Center; A.A., Edward Williams College; B.A., M.A.T., Fairleigh Dickinson University
Sheila Hendlin, Director of Cooperative Education and Career Development, B.S., Empire State College, State University of New York; M.A., Jersey City State University

Lorna Hoffman, Controller; B.S., Skidmore College; M.B.A., The William Paterson University of New Jersey; C.P.A.
Elizabeth Jordan, Dean of Science and Health; B.S.N., Hunter College, The City University of New York; M.S.N., New York Medical College; M.Ed, Teachers College, Columbia University
Robert Kahn, Dean of Business, Mathematics, and Social Sciences; B.A., Dickinson College; M.A., Ph.D., Indiana University

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Keith Mackay, McDonalds Corp.
Gary Reinhart, Marriott
Marc Rothstein, Prime Hospitality
Susan Solomon, Rockland Community College
John Van Miert, San Carlos Restaurant \& Catering
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Community College

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Rosemary Cenicola, Pinich \& McGlovre
Bruce Evan Chase, Chase \& Chase
Manny Ferrao, Pitney, Hardin, Kipp \& Szuch
Wendy Flanagan, Bergen Paralegal Club
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Kathleen Jones, Sharp Electronics Corporation
David Lafferty, Breslin \& McNerney
Socrates Lambrinides, Attorney at Law
Daniel McNerney, Breslin \& McNerney
Christopher McGarry, Attorney at Law
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Susan Pfluge, Paralegal
Diane Possumato, Metpath
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Porter \& Pierce
Denise Taylor, C.P.C., Inc.
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Community College

## Medical Laboratory Technology

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Nita Patel, Englewood Hospital \& Medical Center
Mary Scully, Englewood Hospital \& Medical Center
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Medical Center

## Medical Office Assistant

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Debbie Battista, C.M.A.
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Emmanuel A. Lat, M.D.
Linda Magnotta, CMA
Peggy McDermott, CMA
Hugh McGee, Jr., M.D.
Gail Weigel, C.M.A.
Mary C. Zedler, C.M.A.
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Community College

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Donita D'Amico, The William Paterson
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Sonia Krupey, Consultant
Suzanne Latacz Dalton, Barnert Memorial
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Sarah Liptak, Hackensack University Medical Center
Sally Monahan, Pascack Valley Hospital
Rose E. Nagle-Girgenti, St. Joseph's Hospital
\& Medical Center
Lorrie Getter-Howe, Bergen Community
College
Joan Murko, Coordinator, Bergen Community College
Elizabeth Jordan, Dean, Division of Science and Health, Bergen Community College

Office Systems Technology
Joan Gaffin, North Valley Regional High
School
Margaret G. Haase, Hackensack University
Medical Center
Nancy Jablonski, Sequa Can Machinery
Miriam Kahn, Administrative Assistant
Richard Kuzy
Lalia Longo, CPC International, Inc.
Rosemarie McCauley, Montclair State
University
Stephanie Podvesker, Temps Plus
Ann Godley Tyson, Bergen Regional Medical Center
Harriet Wagner, Hillsdale Board of Education
Philip Ciarco Jr. Learning Center
Elaine Adler, Myron Manufacturing Corp.
Alice E. Bledsoe, LVA-NJ Consultant
Judith Cohen, MOHR Retail Learning
Systems, Inc.
John Georgiades, Bergen Community College
Brian Hekemian, Hekemian \& Company
Pargellan McCall, Jersey City State University
Warren T. Oates Jr., Philips Electronics
Lee Porter, Fair Housing Council of Northern
New Jersey
David Sanzari, Alfred Sanzari Enterprises
James Seath, The Arc of Bergen \& Passaic
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## Physical Therapist Assistant

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Randolph Eastwick, M.D., Pascack Valley Hospital
Judith Gonzalez, Concentra Medical Center
Peter M. Halsch, Community Rehabilitation Centers
Denise La Forgia, ATRA Sports Medicine \& Rehabilitation Center
Shannon O'Connell, The Valley Hospital
Kim Poulsen, Hudson Physical Therapy
Dorenne Stiskal, Seton Hall University
Lynn Yasey, Barnert Memorial Hospital
Douglas Davis, Bergen Community College
Compton Jenkins, Bergen Community College
Jeannette Elliott, Program Coordinator, Bergen
Community College
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Elizabeth Jordan, Dean, Division of Science and Health, Bergen Community College

## Radiography

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Doug Downs, Meadowlands Hospital
Walter Drury, General Hospital Center at Passaic
Gerald Durney, St. Mary Hospital
John Esposito, St. Francis Hospital
Milton Gallant, M.D., General Hospital Center at Passaic
Debbie Geary, Holy Name Hospital
Joseph F. Inzinna, M.D., Riverside General Hospital
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Services for the Disabled
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Geraldine Markowitz, Instructor
Ruth Miller, Direct Mail Advertisement
Gary Noll
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Shari Stengel, DVRS
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## Small Business Management

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Joseph D'Ambrozio, Pest Management Services,
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Denis Levy, Cresskill Board of Education Ana Mateo, Student Representative Louis Morrero, Spectra Colors Corp.
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Rita Bayless, Palisades General Hospital
Barbara Mayer Borel
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Kate McLaughlin, St. Joseph's Hospital \& Medical Center
Therese Palazzo, Hackensack University
Medical Center
Anna Rodakowska, St. Joseph's Hospital \&
Medical Center
Lori Alexis, Bergen Community College
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## Travel and Tourism

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Robert E. Corcoran, Robert's Travel Service
Mary Gasior, Empire Blue Cross/Blue Shield
Lori Gedon, VHR Worldwide
Era "Nancy" Gray, Apel International Travel of
New Jersey
James McGilvray, United Airlines
James McQueen, American Express
John N. Mellon, Teikyo Post University
Rosalie Rance, ARCORPProperties
Terry Romano, Liberty Corporate Travel
Dorothy Gleckner, Coordinator, Bergen
Community College

## Veterinarian Technology

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Stanley Bladek, Newton Veterinary Hospital
Samuel Castimore, Animal General
Robin Del Bove, Veterinary Tech
Martha Hughes, Sussex County Community Gary Johnson, Oradell Animal Hospital
Timothy Lasslett, Bergen Community College
Alan Levin, County College of Morris
Suzanne Meyer, Veterinary Tech
Carol Ose, The Highlands Veterinary Hospital
Tim Patsche, County College of Morris
Gregory R. Reinhardt, Shering Plough
Research Institute
Catherine Smith
Sally B. Smith, Golub Animal Hospital
Brian Voynick, American Animal Hospital
Robert Amitrano, Bergen Community College
Pavlina Kopeckova, Student Representative
Joan Murko, Bergen Community College
Amy Korengut, Coordinator, Bergen
Community College
Elizabeth Jordan, Dean, Division of Science and Health, Bergen Community College


| A | Administration |
| :--- | :--- |
| AC | Athletic Complex |
| B | Business |
| BCSC | Buehler Challenger |
|  | Science Center |


| C | College Center | N | Natatorium |
| :--- | :--- | :--- | :--- |
| CLC | Ciarco Learning Center | S | Science |
| E | East Hall | SC | Student Center |
| G | Gymnasium | SH | Skoskie Hall |
| L | Library | T | Theatre |

Facilities Designed to Accommodate People with Disabilities

## FROM THE NORTH

(Via Garden State Parkway) Take
Exit 165; turn right (west) on Ridgewood Road, then right onto Ridgewood Avenue (crossing over Route 17) and continue to Paramus Road. Turn left onto Paramus Road and continue approximately 2 miles to the college; proceed around jug handle to the main entrance.
(Via Route 17) Turn right off Route 17 onto Ridgewood Avenue (west) to Paramus Road. Turn left onto Paramus Road and continue as above.

## FROM THE EAST

Take Route 4 (via George Washington Bridge from New York City) to Paramus Road, Paramus. (From the east, Paramus Road is approximately $3 / 4$ miles past Route 17 intersection.) Turn right onto Paramus Road and proceed north for approximately 2 miles to the college entrance on the right side of Paramus Road.

## FROM THE SOUTH

(Via Garden State Parkway) Take Exit 160 (Passaic Street). Turn left onto Passaic Street. Continue over Route 4 onto Paramus Road (Passaic Street becomes Paramus Road north of Route 4 overpass.) Continue north about 2 miles on Paramus Road to the college entrance on the right.
(Via Route 17) - Take Century Road, second exit to the right; proceed around clover leaf over Route 17 onto Century Road (west). Continue to Paramus Road and turn right onto Paramus Road to the college entrance on the right.

## FROM THE WEST

Take Route 4 to Paramus Road, Paramus (exit under overpass). Turn right onto Paramus Road and proceed north for approximately 2 miles to the college entrance on the right side of Paramus Road.


## BY BUS

Regular bus service is provided to the Bergen Community College campus. Operated by the New Jersey Transit, the $\mathbf{7 5 6}$ bus makes stops on campus. The New Jersey Transit 163 bus makes hourly stops at the main entrance to the college throughout most of the day. For schedules, contact the BCC Welcome Center at 447-7200 or the Bergen County Transit Information Center at 488-0840.

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[^0]:    *** Meeting the minimum requirements does not guarantee admission into the Physical Therapist Assistant Program. Admission is selective, additional criteria utilized to select individuals include: Overall GPA, science GPA, year biology or anatomy completed, experience (paid or volunteer) in a physical therapy setting or other allied health field, prior education, and letters of recommendation from physical therapist(s).

[^1]:    * The qualifying GPA includes grades in all degree as well as non-degree courses.
    ** Attempted and/or earned credits in non-degree credits courses are not used to determine minimum credits in these categories.

[^2]:    *Lab Science Elective

[^3]:    *General Education Elective in History - see page 58
    **General Education Elective in Fine Arts, W orld
    Languages, Literature, or Philosophy \&Religion - see page 58
    ***Students should select from M AT150, M AT180, M AT223, M AT280 $\dagger$ General Education Elective - see page 58.

[^4]:    * General Education Elective - see page 58
    **General Education Elective in Fine Arts, W orld Languages, Literature, or Philosophy \& Religion - see page 58
    ***General Education Elective in History - see page 58
    $\dagger$ Recommended: M US101 M usic Appreciation; M US110 M usic, Art, and Drama; THR101 Introduction to Theatre

[^5]:    * General Education Elective - see page 58
    **General Education Elective in Fine Arts, W orld Languages, Literature, or Philosophy \& Religion - see page 58
    ***General Education Elective in History - see page 58
    $\dagger$ Recommended: M US101 M usic Appreciation; M US110 M usic, Art, and Drama; THR101 Introduction to Theatre

[^6]:    * General Education Elective - see page 58
    ${ }^{* *}$ General Education Elective in Fine Arts, Foreign Languages, Literature, or Philosophy \& Religion - see page 58
    ***General Education Elective in History - see page 58
    $\dagger$ Recommended: M US101 M usic Appreciation; M US110 M usic, Art, and Drama; THR101 Introduction to Theatre

[^7]:    * M AT280 Calculus I is required of all students in Natural Sciences and M athematics programs.
    ** Choose one of the following: W EX201, W EX202, W EX204, W EX205, W EX206, W EX208.
    *** Choose at least one of the following: ANT101; HIS105; HIS116; HIS121; HIS126; HIS130; HIS131; LIT203;
    LIT204; LIT215; LIT218; LIT224; LIT228; PHR106; PHR121; PHR122; PSY207; SOC120; SOC121; SOC222

[^8]:    * By permission of the Divisional Dean, properly prepared students may instead register for M AT265 and/or M AT271. Such students will be required to complete an additional 3 or 4 credit elective to be selected from: M AT250, M AT266, M AT272, M AT275, M AT278, M AT281, M AT282, M AT286, M AT287, M AT288, M AT289.
    ** General Education Elective - see page 58. PHR103 Basic Logic and PHR203 Intermediate Logic are recommended for the Humanities Electives.
    *** This elective requirement in Computer Science and/or M athematics must total at least 8 credits to be selected from the following courses: M AT250, M AT266, M AT272, M AT275, M AT278, M AT281, M AT282, M AT286, M AT287,M AT288, M AT289.
    $\dagger$ PHY190 Physics I and PHY290 Physics II or CHM 140 General Chemistry I and CHM 141 General Chemistry Lab I and CHM 240 General Chemistry II and CHM 241 General Chemistry Lab II are recommended.

[^9]:    * General Education Elective - see page 58.
    ** CHM 140/141 General Chemistry I and CHM 240/241 General Chemistry II are recommended.

[^10]:    * General Education Elective - see page 58.
    ** The student must choose among the following courses: M athematics: M AT250
    Computer Science: M AT165, M AT265, M AT272, M AT288
    Natural Sciences: CHM 140/141 and CHM 240/241, or PHY186 and PHY286 or PHY190 and PHY290. This elective requirement must total at least 16 credits, including at least one course in Computer Science and at least one 8-credit sequence in Laboratory Science.

[^11]:    * M AT280, M AT281, M AT282, and M AT283 are required of all students in the Engineering Science program.
    ** Choose one of the following: WEX201, W EX202, W EX204, W EX205, W EX206, W EX208.
    *** Choose at least one of the following: ANT101; HIS105; HIS116; HIS121; HIS126; HIS130; HIS131; LIT203; LIT204; LIT215; LIT218; LIT224; LIT228; PHR106; PHR121; PHR122; PSY207; SOC120; SOC121; SOC222.

[^12]:    * Students should select from M AT150, M AT180, M AT223, M AT280
    ** General Education Elective - see page 58

[^13]:    * Students should select from M AT150, M AT180, M AT223, M AT280
    ** General Education Elective - see page 58
    *** It is recommended that students take one of the following: BUS208, BUS209, BUS233, BUS234, and BNF201 or a computer course (INF101 or MAT165).

[^14]:    * Students should select from M AT150, M AT180, M AT223, M AT280
    ** General Education Elective - see page 58
    $\dagger$ PSY101 General Psychology is recommended.
    $\dagger \dagger$ SOC101 Sociology is recommended.

[^15]:    * General Education Elective - see page 58

[^16]:    * Choose one of the following: W EX201, W EX202, W EX204, W EX205, W EX206, W EX208
    ** To fulfill these requirements for the AAS degree, the student must follow one of the AAS degree programs listed on the following pages.
    *** Choose at least one of the follow ing: ANT101; HIS105; HIS116; HIS121; HIS126; HIS130; HIS131; LIT203; LIT204; LIT215; LIT218; LIT224; LIT228; PHR106; PHR121; PHR122; PSY207; SOC120; SOC121; SOC222.

[^17]:    * General Education Elective - see page 58

[^18]:    * General Education Elective - see page 58
    ** PHY186 General Physics I required of Diagnostic M edical
    Sonographers as a substitute for CHM 100 Introduction to Chemistry

[^19]:    * Or passing score on the CHM 100 Challenge Examination.
    ** Students should select from M AT130, M AT150, M AT155, or M AT180.
    *** General Education Elective - see page 58

[^20]:    * General Education Elective - see page 58

[^21]:    Students in the PTA Program are required to achieve a grade of "C" or better in Science courses and PTA courses.

[^22]:    * General Education Elective - see page 58
    $\dagger$ Students should select from M AT130, M AT150, M AT155, M AT180.

[^23]:    * Specialized course that may be offered only in the evening.
    ** General Education Elective - see page 58
    $\dagger$ ECO201 M icro Economics is recommended.

[^24]:    * General Education Elective - see page 58
    ** Specialized course which may be offered only in the evening.

[^25]:    * General Education Elective - see page 58
    ** Class offered only during Fall semester.
    *** Class offered only during Spring semester.

[^26]:    * General Education Elective - see page 58

[^27]:    * General Education Elective - see page 58

[^28]:    * General Education Elective - see page 58
    † M AT150 Elementary Statistics is recommended.

[^29]:    * General Education Elective-see page 58
    $\dagger$ ART103 Art History since the Renaissance is recommended.
    $\ddagger$ PHY185 Intro to Physics is recommended.

[^30]:    * Evening Nursing applicants cannot be accepted until general co-requisites (8 courses) have been completed. Evening nursing program accepts students for Spring only.
    ** General Education Elective - see page 58

[^31]:    * General Education Elective - see page 58
    $\dagger$ Recommended Natural Sciences/M athematics Elective: BIO108 Introduction to Environmental Biology

[^32]:    * Students planning to continue toward the AAS Degree in Drafting and Design should elect DFT208.
    ** Specialized course which may be offered only in the evening.

[^33]:    * Credit-by-exam tests are available for Keyboarding I and Keyboarding II.
    ** General Education Elective - see page 58
    $\dagger$ BIO101 General Biology I is recommended
    $\ddagger$ CHM 100 Introduction to Chemistry is recommended

[^34]:    * General Education Elective - see page 58
    ** Three credits from any course(s) with ACC, BUS, or INF prefixes.

[^35]:    * General Education Elective - see page 58

[^36]:    * General Education Elective - see page 58

[^37]:    *Credit-by-exam tests are available for Keyboarding I and II.
    **General Education Elective - see page 58
    ***Specialized course that may be offered only in the evening.

[^38]:    THR - THEATRE
    THR-101 Introduction to the
    Theatre is a study of live theatre and of how it is produced, how it has developed historically and culturally, and how it is analyzed and evaluated. This is primarily a theory course, but it also includes theatre-going assignments. 3 lec., 3 credits IGeneral Education Course

